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REPORT AND RECOMMENDATION
 OF THE
 PRESIDENT OF THE
 INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
 TO THE
 EXECUTIVE DIRECTORS
 ON A
 PROPOSED LOAN
 TO THE
 REPUBLIC OF BOLIVIA
 FOR AN
 URBAN AND RURAL COMMUNITIES
 WATER SUPPLY AND SEWERAGE PROJECT

September 1, 1976

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CURRENCY EQUIVALENTS

(As of September 1, 1976)

Currency Unit = Bolivian Peso (\$b)

US\$1 = \$b20

\$b1 = US\$0.05

\$b1,000 = US\$50

\$b1,000,000 = US\$50,000

ABBREVIATIONS AND ACRONYMS

AAPOS = Sanitary Works Administration for Potosi

CORPAGUAS = Water and Sewerage Corporation

ELAPAS = Water Supply and Sewerage Company of Sucre

Fiscal Year = Calendar Year

REPORT AND RECOMMENDATION OF THE PRESIDENT
OF THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
TO THE EXECUTIVE DIRECTORS ON A PROPOSED LOAN
TO THE REPUBLIC OF BOLIVIA FOR AN URBAN AND RURAL COMMUNITIES
WATER SUPPLY AND SEWERAGE PROJECT

1. I submit the following report and recommendation on a proposed loan to the Republic of Bolivia for the equivalent of US\$11.5 million to help finance an urban and rural communities water supply and sewerage project. The loan would have a term of 20 years, including four-and-one-half years of grace, with interest at 8.9% per annum. A total of US\$6.7 million of the proceeds of the loan would be relent to the Sanitary Works Administration of Potosi (AAPOS) and to the Water Supply and Sewerage Company of Sucre (ELAPAS) for 22 years, including 3 years of grace, with no interest during the grace period and at 8.9% per annum thereafter.

PART I - THE ECONOMY

Introduction

2. An economic report entitled "Current Economic Position and Prospects of Bolivia" (786a-B0) dated July 28, 1975, was distributed to the Executive Directors. An updating economic memorandum is near completion and will be distributed to the Executive Directors in the near future. Country data sheets are attached as Annex I.

Background

3. Despite the increasing importance of petroleum and natural gas exports, as well as significant mineral deposits, Bolivia remains one of the poorest countries in South America. The majority of its population is engaged in traditional agriculture. Only a small part of the labor force is employed in the modern sectors. The infrastructure is primitive and the road and rail networks cover only a fraction of the country. The combination of strong traditional ties within the Indian communities and geographic, health and educational obstacles to population mobility has perpetuated the demographic concentration on the inhospitable 10-15 thousand foot plateau, the Altiplano. About half of Bolivia's population lives a physically, culturally and economically isolated subsistence existence in this region, which is rich in mineral deposits but limited in agricultural potential.

4. The 1952 revolution sought to put an end to the dual structure which had characterized Bolivia's economy since colonial times and to deprive the landowning and mining oligarchy of its economic base. This objective was only partially achieved. Progress was made in eradicating feudal relations, distributing the land and eliminating obstacles to social mobility. The agrarian reform and the nationalization of large mines, however, were followed by falling production. GDP declined in the 1950s and

did not recover to its pre-1952 level until 1961. During the subsequent decade, output increased steadily at an average annual rate of around 5%, providing for per capita income increases averaging 2.5% p.a. As a result, GNP per capita, which had fallen by 24% in the 1952-60 period, had recovered by 1970 to its 1952 level and was more equally distributed. However, the momentum of economic growth was again lost in 1969/71 when political instability led to declining private investment and deteriorating public finances. The deterioration of public finances reflected a structural flaw in the economy. Bolivia's public sector is proportionately one of the largest in South America and a source of livelihood for a sizeable segment of the population. With scarce employment opportunities in the private sector, pressures to expand the ranks of public servants proved difficult to resist. Increased expenditures on wages and salaries, combined with a weak tax system, left few resources for investment. Moreover, the inability of the public sector to generate adequate savings limited its capacity to utilize available external capital assistance.

5. On coming to power in 1971, President Banzer faced the need to provide jobs for the unemployed and to revitalize investment and output growth. Initially, this task was faced in the context of a sharp deterioration in Bolivia's terms of trade which produced a weakening in the balance of payments and a further deterioration in public finances and eventually resulted in a substantial devaluation in 1972. At the same time, however, more rational economic policies were put into effect and a more favorable climate for private investment established. New laws offering guarantees and incentives to private investors especially in the hydrocarbon field were promulgated and claims arising from earlier nationalizations were settled. The Government also improved public administration and the pricing policies of some public undertakings. These policies were successful in increasing private investment and in bolstering the rate of growth.

Recent Economic Developments and Prospects

6. The most important events affecting recent economic performance have been the substantial improvement in the terms of trade in 1974 and the subsequent deterioration last year. The sharp increases in petroleum and mineral prices in 1974 allowed a simultaneous and large expansion of both consumption and investment and brought about an unprecedented improvement in public finances, the balance of payments and foreign exchange reserves. After current deficits in 1970-73, the Central Government achieved savings equivalent to one-third of its capital expenditure. For the public sector as a whole, savings in 1974 exceeded 10% of GDP and covered nearly 90% of capital expenditure. On the balance-of-payments side, the terms of trade gain in 1974 was equivalent to about 11% of GDP; the trade surplus exceeded US\$150 million; and net capital inflows approached US\$90 million, nearly four times their 1973 level, as a result of substantially higher loan disbursements to the public sector and increased foreign investment associated with hydrocarbon exploration. However, part of this improvement was lost in 1975 when Bolivia's terms of trade and export volumes declined under the impact of the world economic recession, which brought once again the extreme dependence

of the economy on its external sector into focus. Mineral exports fell by well over 20% as mineral prices declined by approximately 13%, on weighted average, and shipments of most minerals fell as a direct result of the recession and unloading on international markets of speculative stocks accumulated during the commodity boom of 1973/74. Exportable surpluses of crude petroleum were significantly reduced for the second year in a row due to falling production and rapidly rising domestic consumption of hydrocarbon derivatives. A significant price increase for natural gas exports to Argentina could not compensate for the overall decline in export earnings. On the whole, merchandise exports in 1975 declined by 18% while imports rose by nearly one-third in the wake of the start-up of new public investment projects and the liberalization of imports for consumer durables and motor cars earlier in the year. Despite further substantial increases in disbursements of medium-term loans to the public sector, net foreign exchange reserves fell by US\$60 million to US\$100 million, or about two months of imports. The Central Government's current surplus was just about 1.7% of GDP, after 2.6% in 1974, and some borrowing from the banking system was necessary to finance growing public investment. However, some public utilities attained stronger financial results due to improved rates.

7. Bolivia's terms of trade are expected to again improve in 1976 and beyond. Mineral prices have bottomed out in 1975 and hydrocarbon prices have resumed their rising trend. Furthermore, with gradual economic recovery in industrialized countries, mineral exports volumes should increase. Government measures taken in late 1975 to increase prices of domestically consumed petroleum products by about 70% on the average, especially of gasoline, should slow down the rise in domestic demand, thus contributing to preserve exportable surpluses. The outlook for 1976, therefore, is for somewhat accelerated growth and an improved fiscal and balance-of-payments position.

8. Economic growth prospects over the medium- to longer-term depend on the Government's ability to increase savings and stimulate investments, particularly those for developing the hydrocarbon, mineral and agricultural resources. Government measures taken since about 1973 and designed to broaden the fiscal revenue base are now beginning to show results. Firm wage policies applied since 1974 have resulted in a reduction of inflation to an annual rate of well below 10%. Investment in mining and hydrocarbons is accelerating. Intensified exploration for hydrocarbons by the state-owned petroleum company and private foreign companies is underway and may lead to significantly increased production and export of crude petroleum and natural gas which would stimulate an acceleration of economic growth towards the end of the decade.

Debt Service and Creditworthiness

9. Service on external public debt in 1975 amounted to 16.8% of exports of goods and non-factor services net of investment income abroad. Average terms of the external debt outstanding have remained soft, reflecting the high proportion of concessionary aid channeled to Bolivia. Average interest in 1975 was 4.4% and average maturity about 22 years.

10. This position is bound to change, however, as it can be expected that lending terms will become harder and the share of loans on conventional terms will increase. Of new loans attracted during 1974 and 1975, over 25% were financial and suppliers' credits. With substantial disbursements envisaged during the next five years, the service on external public debt will move well above its historical average (12.8%) by 1977/78; but in line with growing exports, the debt service ratio should decline in subsequent years. In view of the nature and growing size of Bolivia's debt, prudence in selecting and utilizing external capital will have to be an essential element of debt management.

11. Bolivia enjoys a substantial resource base in agriculture, minerals and hydrocarbons which has to be developed to sustain rapid economic growth and, in particular, rapid expansion of export earnings in the foreseeable future. If production in the export sectors can be increased as planned and prices for major export products are adequate, Bolivia can be considered creditworthy for substantially increased amounts of external lending on conventional terms. Nevertheless, some additional lending on soft terms (available from the Inter-American Development Bank and the USAID) is justified by Bolivia's poverty and its large and continuing external capital requirements. The country will require substantial external financing of investment to supplement the domestic savings effort at least until the early 1980s. While the Government is making a serious effort to mobilize domestic resources and prepare a development program, implementation of this program will require external assistance well in excess of the foreign exchange component of suitable projects presently available for international financing. Although substantially increased suppliers and financial credits will probably become available, they should prudently cover not more than 35% of the public capital inflows required during 1976-80 for meeting a GDP growth target of 5-6% annually. The remainder should be obtained on softer terms from bilateral and international development financing agencies, including an expanded Bank lending program.

PART II - THE BANK GROUP OPERATIONS IN BOLIVIA

12. Although Bolivia is an original member of the Bank, it did not obtain any Bank Group resources until 1964. Bank Group assistance to Bolivia until 1974/1975 was limited by the country's tight budget and restricted capacity to service external debt. Lending to Bolivia was in the form of IDA credits except for a 1971 Bank loan to help finance an "enclave" project. Because of the narrow scope for private investment, IFC became active in Bolivia only in 1973 through an investment of US\$400,000 in a firm producing cables and plastic products. With expanding opportunities for private investment, however, IFC has most recently agreed to take an equity participation of \$550,000 in Banco Industrial (BISA) in conjunction with a Bank loan for the same institution to assist in financing medium-sized industrial and mining enterprises, and US\$337,500 in the Banco Hipotecario Nacional to assist in the development of mortgage banking. The latter two IFC investments also aim at

contributing to establish a local market for long-term securities. Annex II contains a summary statement of the status of Bank Group operations in Bolivia as of July 31, 1976, and notes on the status of ongoing projects.

13. The proposed loan would be the Bank's sixth and the Bank Group's seventeenth operation in Bolivia. Net of undisbursed balances, Bolivia's debt to the Bank and IDA in 1974/75 represented 8.3% of its external public debt and the share of the Bank Group in total debt service is now about 4%. Both figures are expected to increase marginally by 1980. Although the Bank Group has ranked below the US Government and the IDB as a source of financial assistance to Bolivia, its role has been expanding.

14. Future Bank lending will continue to support Government efforts to strengthen and expand the productive base of the economy, in particular the export sectors, while simultaneously emphasizing improved distribution of the benefits of economic growth. In the social sectors, Bank activities will focus on helping the less developed regions of the Altiplano and the intermediate valleys which contain the majority of Bolivia's rural and urban poor.

15. A project to assist small privately owned mining firms is in the final stages of preparation. Agricultural projects under consideration are designed to meet the needs of the poorer farmer and an education project will seek to improve rural and vocational education. The financing of further economic infrastructure is also contemplated in the transportation and power sectors. In transportation, project preparation is underway for a project to provide access to remote areas of the country through a program of airport development, and continued support for the railway rehabilitation program is planned as well.

PART III - THE WATER SUPPLY AND SEWERAGE SECTOR

Present Situation

16. Bolivia compares poorly with most Latin American countries in providing water and sewerage services: only 22% of its 5.5 million inhabitants had water services and 10% had access to sewerage facilities in 1973. Services in urban areas were better than in rural communities: about 56% of the 1.7 million urban dwellers benefitted from water services and 23% from sewerage facilities in 1973. Generally, the supply of water is irregular, transmission and distribution networks are run-down and the ratio of water lost due to leakages is high. Sewerage services are available only to those who happen to live in the central and commercial sections of the eight largest cities. With the exception of the city of Santa Cruz, sewage is discharged directly into streams which are utilized downstream for irrigation and domestic purposes.

17. In the rural areas, less than 5% of the 1973 population of 3.8 million have benefitted from water services and only about 3% have access to sanitary facilities. The majority of the people depend on the supply of water

from shallow wells, springs, streams and rivers which are often of poor quality. During the dry seasons, supply of water is uncertain and villagers have to haul water over long distances. The Government has been aware of these conditions and has prepared a National Plan to construct or improve water systems in about 500 rural communities. The objective of the Government under the National Plan is to provide water to about 16% of the rural population by 1980. The Inter-American Development Bank (IDB) made a loan of about US\$1.8 million to finance the first stage of the National Plan in 1969-74. This was implemented by the Water and Sewerage Corporation (CORPAGUAS) which completed the construction of water systems in 68 rural communities in 1974. Subsequently, IDB has decided to concentrate its efforts in urban centers like Oruro, Trinidad, Tarija rather than in rural areas. In general, the Government's investment in rural sanitation works has been confined mainly to financing sanitation facilities in schools and health centers.

18. Investment programs in the water supply and sewerage sector have relied heavily on external assistance because competing claims from other sectors and insufficient domestic savings left little resources for constructing water supply and sanitation systems. Bolivia has received about US\$75 million in soft funds mainly from IDB and the Federal Republic of Germany for water supply and sewerage projects during the past seven years. In spite of Government efforts, the tariffs for water have remained inadequate because the majority of the public continues to believe that: (i) water should be a free social good; and (ii) the low quality of services does not justify tariff increases. The Government intends to modify these attitudes through educational programs and by upgrading the quality of services.

19. With the exception of the National Plan for provision of water to rural communities, Bolivia did not have a coherent development plan for the overall water supply and sewerage sector until the issuance, on April 15, 1975 of the Bank/WHO Water Supply and Sewerage Sector Study (No. 712-B0). Based on the Sector Study recommendations, the Government established minimum targets for provision of water services to 67% of the urban population and 16% of the rural population by 1980. The 1980 minimum targets for provision of sewerage facilities are 26% for the urban population and 4% for the rural population. The Sector Study also recommended that the Government give priority to decentralizing the responsibilities for the construction and supervision of rural water supply and sewerage projects and that it establish, on a national level, adequate tariff policies to finance the development needs in the sector.

20. There are various entities involved in the water supply and sewerage sector: (a) CORPAGUAS, a semi-autonomous agency, established in 1967, under the jurisdiction of the Ministry of Housing and Urban Affairs which builds water supply systems for communities with population between 200 and 10,000 people; (b) Division of Urban Engineering of the Ministry of Housing and Urban Affairs, which establishes sector policies for urban areas; (c) Departmental Development Organizations 1/ of Santa Cruz and Chuquisaca which have been

1/ Bolivia is divided into nine departments.

constructing water supply systems; (d) the Community Water Committees which represent rural communities in matters concerning construction and maintenance of water system; (e) the semi-autonomous public utilities in the eight largest cities, including AAPOS and ELAPAS; and (f) the Division of Environmental Sanitation of the Ministry of Public Health, which installs latrines for communities of 2,000 inhabitants or less. Many of the entities which manage water supply and sewerage systems lack adequate management, technical and administrative personnel and their systems for accounting, billing and collection of charges, warehousing and purchasing are poor.

Organizational Changes

21. At present, CORPAGUAS is the single most important agency for providing water supply in rural communities. However, servicing the needs of these communities from La Paz has strained its manpower and financial resources. In order to increase efficiency, the Government has agreed to prepare plans for a gradual transfer of CORPAGUAS' present responsibilities for rural water and sewerage systems to the four additional Departmental Development Organizations in which the 70 rural water systems will be constructed under the project. CORPAGUAS agreed to retain consultants satisfactory to the Bank to prepare a plan for such transfer by June 30, 1978 (Part C Project Agreement, Sections 2.02 (a) and (b) and 3.06). However, in order to ensure that the construction schedule is maintained, CORPAGUAS will keep its responsibilities for the implementation of the project. Thereafter, CORPAGUAS will continue to assist the Departmental Development Organizations in designing rural water supply systems and building or supervising projects which require special skills unavailable to them.

Legal and Institutional Changes

22. To date, investments in the urban water supply and sewerage sector have often been made without adequate coordination and without proper project evaluation. Moreover, revenues from these projects seldom covered direct operating costs. As a first step to improve this situation, the National Tariff Council was established with powers to approve all new tariffs and a National Tariff Standard (Decree No. 133) was published in April 1974. In order to improve project evaluation, the Division of Urban Engineering will act as a project evaluation unit with authority to approve or reject applications for financing of water supply and sewerage projects in urban communities with 10,000 or more inhabitants. Projects will be approved only if they represent the least cost solution and the proposed tariffs are consistent with the guidelines set forth in the National Tariff Standard. The Government agreed to issue the necessary regulations to effect the proposed changes in the approval procedure and to retain consultants satisfactory to the Bank to carry out the study of tariffs and to train the Division of Urban Engineering staff for project evaluation (Loan Agreement Sections 3.01 (a) and 4.03 (a) and (b)).

Tariff Policies

23. The National Tariff Standard as amended in July 1976 stipulates that rates in cities with more than 50,000 inhabitants should generate revenues sufficient to cover operation, maintenance, debt services and a reserve for future capital expenditure. In cities of less than 50,000 but more than 10,000 inhabitants, revenues shall cover operation, maintenance and debt services. Rural communities are exempt from repaying interest and principal, but they will have to make every effort to meet operation and maintenance costs.

PART IV - THE PROJECT

24. The project, which is based on studies prepared by foreign and local consultants, was appraised by a Bank mission which visited Bolivia in October 1975. A report entitled "Appraisal of the Urban and Rural Communities Water Supply and Sewerage Project," No. 1076b-B0 dated August 30, 1976, is being distributed separately to the Executive Directors. A loan and project summary is presented in Annex III. Negotiations took place in Washington from July 26 to July 28, 1976. The Bolivian delegation was headed by Mr. Floyd Foster, Undersecretary of Urban Affairs of the Ministry of Housing and Urban Affairs.

The Setting

25. The project would be the first Bank operation for water supply and sewerage in Bolivia, although a small component for potable water and sanitation was included in the Ingavi Rural Development project (Loan 1211-B0). A typical rural community which will benefit from the project has a population of about 1,500, who are mainly Altiplano subsistence farmers with low incomes. Most of the villages do not have a community water supply system, and where one exists, it is very old, and the quality of water is poor and shortages are common.

26. The master plans for the expansion of the water supply and sewerage systems for Potosi and Sucre are part of the overall urban development studies for both cities. The city of Potosi, which has a population of about 75,000, is the oldest and most important mining town in Bolivia and practically all its labor force is employed in mining. The present water supply services are inadequate for its expanding residential and industrial sections. Sucre is the historical capital of Bolivia with about 55,000 people. The city is the commercial center for the Department of Chuquisaca and an important center for training teachers and physicians. Water losses in both cities are high--about 48% in Sucre and 62% in Potosi. The average water consumption for new users in both Potosi and Sucre is projected to be only about 20 cubic meters per household per month, in view of their low income.

Project Description

27. The project has the following components:

- (i) **Water Supply for 70 Rural Communities:** The construction of about 70 water systems additional to the 68 systems constructed under the first stage of the National Plan (paragraph 17) and establishment of a Community Water Committee in each of the participating rural communities. A typical rural water system will consist of intake works, chlorination facilities, storage and distribution tanks, and distribution networks including house connections and public faucets. Detailed studies and designs for 35 of the water systems have been prepared and the remaining 35 will be ready by December 1977. Construction of the water systems is expected to be completed in four years.
- (ii) **Water Supply for Potosi:** The second stage of a 20-year program to improve the water supply system for Potosi. The project will repair the existing dikes, line the main conduits, enlarge the treatment plant, extend the distribution network, reduce leakage from 62% to 23% and carry out a survey of house connections and public faucets. These works will take about two years.
- (iii) **Water Supply and Sewerage for Sucre:** The project will improve and protect the main canal, increase storage facilities, extend the distribution network and install house connections and water meters. The project will also improve and extend the sewer system in Sucre, install about 4,000 additional house sewerage connections and construct a sewerage treatment plant. These works will take about two years.
- (iv) **Technical Assistance:** (a) Training of the staff of the Division of Urban Engineering, AAPOS, CORPAGUAS and ELAPAS; and (b) studies on tariffs for water supply and charges for sewerage services and the effects of metering water consumption.

28. The project includes an estimated 47 man-months of consultant services for technical assistance to train the staff of the Division of Urban Engineering to improve its project evaluation systems and to introduce in CORPAGUAS, AAPOS and ELAPAS improved management, accounting, and financial systems. An additional 44 man-months of consultant services are included for engineering design and supervision.

Project Implementation

29. The project would be constructed by CORPAGUAS, AAPOS and ELAPAS. The Ministry of Housing and Urban Affairs would open an account in the Central Bank on behalf of the three beneficiaries. The proceeds of the loan will be provided as a grant to CORPAGUAS and will be relented to AAPOS and ELAPAS for 22 years, including three years of grace, with no interest during the grace period and at Bank interest rate thereafter.

30. CORPAGUAS has extensive experience in designing and building rural water supply projects and is adequately staffed. For the purposes of the project, it needs to improve its accounting procedures, and the project provides consultants for this purpose. CORPAGUAS will supervise construction of the community water supply systems. It will promote the establishment of a Community Water Committee in each community and will enter into a separate subloan agreement with each Committee for the construction of water supply systems. The Committees will be responsible for obtaining the communities' contributions for water supply projects and for carrying out routine maintenance and record keeping functions.

31. In order to ensure rapid implementation of the proposed project, CORPAGUAS has already begun forming Community Water Committees in 35 villages which have been selected according to practical criteria. The criteria includes such indicators as per capita cost for a system, initiative of the community and its organization, willingness and ability to pay for services, capacity to contribute funds, labor, materials, etc. CORPAGUAS will use the same criteria in the selection of the remaining 35 villages (Part C Project Agreement, Section 3.08). In the event that the participating communities fall behind schedule with their contributions, the respective Departmental Development Organizations will be required to make up any shortfalls (Part C Project Agreement, Section 3.07 (a) and (b)).

32. AAPOS, established in 1972, has the necessary managerial and technical staff for the execution of the proposed project. Financial management of AAPOS as well as its commercial and accounting systems still need to be improved. The project provides for consultant services to AAPOS for this purpose. ELAPAS is a well managed autonomous entity with extensive experience in constructing and maintaining a water supply and sewerage system. ELAPAS has been, for over a year, the only water company in the country which has successfully installed water meters to a majority of its users. Its financial and costing systems still need improvement and the project provides consultants for this purpose (Part A and Part B Project Agreements, Section 3.05). Staff from both entities, with the assistance of consultants, will prepare detailed designs, cost estimates and bidding documents for works in Potosi and Sucre. Personnel from AAPOS and ELAPAS, assisted by consultants, will also supervise the construction of the respective water supply systems and the sewerage facility in Sucre.

Cost Estimates

33. The total cost of the project is estimated at about US\$15.0 million, including contingencies. Interest during construction amounts to an additional US\$1.4 million and will be financed from local contributions. The proposed US\$11.5 million Bank loan would finance the foreign exchange costs (US\$11.1 million) and local consultant costs (US\$0.4 million). The average cost per man-month for consultant services is estimated at US\$4,000 for foreign consultants and US\$2,000 for local consultants. Further details of the cost estimates and the financing plan are summarized in Annex III.

Procurement

34. Pipes, accessories, meters and related equipment (estimated to cost about US\$7 million) would be procured through international competitive bidding in accordance with Bank Guidelines. Local manufacturers will receive a margin of preference of 15% of the cif price, or the actual tariff, whichever is lower. Contracts for civil works, estimated to cost about US\$2.6 million, would be awarded on the basis of competitive bidding advertised locally and in accordance with procedures acceptable to the Bank. The type and size of the civil works are such that foreign firms are unlikely to be interested in bidding although they would not be precluded from doing so. Because of the specialized nature and limited amount of work involved, construction in some of the remote villages would be undertaken by CORPAGUAS on force account, using labor from the villages.

Disbursement

35. Disbursements would be made for 100% of the foreign exchange cost of imported equipment. Disbursements for civil works and locally procured materials and equipment (if any) would be at the rate of 60%. Disbursements for the engineering and technical assistance consultants would be for 100% of total costs. Retroactive financing of up to US\$100,000 equivalent for engineering studies for the sewerage component of ELAPAS prior to the date of the Loan Agreement and after July 1, 1975 is proposed. Disbursements for the works in Potosi and Sucre are expected to be completed by early 1979, and for the rural works by 1981.

Financial Situation

36. The financial position will vary considerably between the rural and urban components of the project.

- (i) Rural Component: Under the project, communities with less than 10,000 inhabitants will pay only for operation and maintenance of the water supply systems and the Government will repay CORPAGUAS' portion of the Bank loan. Each community would contribute the equivalent of about 15% of the construction cost in cash, labor and materials. The cost of the house connection will be charged to individual households.
- (ii) Urban Component: AAPOS is financially weak due to an inadequate water rate (a fixed monthly fee of about US\$0.50 cents) and its reluctance to install meters. AAPOS agreed that not later than December 31, 1976, it will submit to the Bank a detailed meter installation program for at least 80% of its users in order to introduce charges based on the quantities consumed (Loan Agreement, Section 2.02 (a) (v) and Part A Project Agreement, Section 3.06). AAPOS will also complete a consumer survey by April 30, 1977 (Part A Project Agreement, Section 3.07). ELAPAS' financial performance has been somewhat better than AAPOS. However, its average monthly

water bill of about US\$1.00 per connection has enabled ELAPAS to cover only its operating costs. The financial position of both AAPOS and ELAPAS will be strengthened under the project. Tariff levels will be raised in steps from December 1, 1976 so that by 1979, revenues will cover: (a) operation, debt services and all taxes; (b) the cost of any expansion other than a major expansion and increases in non-cash working capital requirements for the current year; and (c) 10% of the estimated average annual expenses for any major expansion during a period of three calendar years including the current year and the two years immediately following it (Part A and Part B Project Agreements, Section 4.03 (a)). The initiation of the tariff increase constitutes a condition for the disbursement of the loan both for AAPOS and ELAPAS (Loan Agreement, Section 2.02 (a) (iv) and (b) (iv)). As the payment capacity of those benefitting from sewerage facilities in Sucre is limited, the charges for sewerage services will need to be partially subsidized during the next few years. ELAPAS will recover part of its investment in sewerage either by way of an earmarked tax or by other measures satisfactory to the Bank (Loan Agreement, Section 2.02 (b) (v)).

Project Benefits and Risks

37. The incremental financial rate of return can be calculated only for two project components. The rate of return for the urban water supply investments by AAPOS is estimated to be 6%, while that for ELAPAS is 10%. The combined rate of return for these components, which account for 35% of the total project cost, would be 8.1%. Meaningful rates of return could not be calculated for the sewerage system to be constructed by ELAPAS or for the rural water supply systems to be undertaken by CORPAGUAS.

38. In addition to yielding a reasonable rate of return on the urban water supply components, the project is also justified by the introduction of major institutional, financial and investment reforms in the rural and urban water supply and sewerage sector. The proposed reforms would improve the overall technical and financial position of the sector by transferring responsibilities for construction of water systems in rural areas to four Departmental Development Organizations, establishing additional Community Water Committees and strengthening the executing agencies, including the Division of Urban Engineering.

39. From a social point of view, the project will help to provide clean water for the benefit of about 100,000 rural poor whose access to uncontaminated water is at present limited. About 50,000 people will benefit from improved water supply systems in Potosi and Sucre while about 30,000 people in Sucre will also benefit from sewerage facilities. Provision of water supply in the rural communities, Potosi and Sucre will help to improve living conditions and health standards by controlling water borne diseases and thereby, over time, improving the productivity and incomes of the poor in Bolivia.

40. Delay in implementing the tariff increases in Potosi and Sucre in accordance with the financial covenants (para 36 (ii)), could delay disbursements against the respective project works and thereby constitute the main risk for the timely completion of the project. Although the Government and the local entities support the tariff increases, the population in both cities is likely to be opposed. To secure acceptance by the public, it is proposed that the bulk of the increases be spread over two years and an intensive educational program be launched. Also, the Government is confident that opposition to the tariff increases will subside as soon as the project works start providing better service. The other risks are no greater than can normally be expected with operations of this type.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

41. The draft Loan Agreement between the Republic of Bolivia and the Bank, the draft Project Agreements between the Bank and, respectively, AAPOS, ELAPAS and CORPAGUAS, the Report of the Committee provided for in Article III (Section 4 (iii)) of the Articles of Agreement, and a draft Resolution approving the proposed loan are being distributed to the Executive Directors separately.

42. Features of the Loan and Project Agreements of special interest are referred to in paragraphs 21, 22, 31, 32, and 36 (ii) of this report.

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

PART VI - RECOMMENDATION

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

Robert S. McNamara
President

by I.P.M. Cargill

Attachments
September 1, 1976

TABLE 3A
- SOCIAL INDICATORS DATA SHEET

| LAND AREA (THOU KM2) | BOLIVIA | | | REFERENCE COUNTRIES (1970) | | |
|--|-----------|---------|----------------------|----------------------------|-----------|-----------|
| | 1960 | 1970 | MOST RECENT ESTIMATE | CAMEROON | HONDURAS | PERU ** |
| TOTAL | 1098.6 | | | | | |
| AGRIC. | 312.9 | | | | | |
| GNP PER CAPITA (US\$) | 110.0 | 180.0 | 230.0 | 210.0 | 270.0 | 510.0 |
| POPULATION AND VITAL STATISTICS | | | | | | |
| POPULATION (MID-YR. MILLION) | 3.8 | 4.9 | 5.3 | 5.8 | 2.5 | 13.3 |
| POPULATION DENSITY PER SQUARE KM. | 3.0 | 4.0 | 5.0 | 12.0 | 22.0 | 11.0 |
| PER SQ. KM. AGRICULTURAL LAND | .. | .. | 17.0 | .. | .. | .. |
| VITAL STATISTICS | | | | | | |
| CRUDE BIRTH RATE PER THOUSAND | 46.6 | 44.4 | 43.7 | 42.1 | 51.5 | 42.9 |
| CRUDE DEATH RATE PER THOUSAND | 22.5 | 19.7 | 18.0 | 23.9 | 19.1 | 14.7 |
| INFANT MORTALITY RATE (/THOU) | .. | 154.0 | .. | .. | .. | 65.0 |
| LIFE EXPECTANCY AT BIRTH (YRS) | 42.3 | 45.3 | 46.8 | 41.0 | 49.4 | 53.4 |
| GROSS REPRODUCTION RATE | .. | 2.8 | 2.8 | 2.7 | 3.4 | 2.9 |
| POPULATION GROWTH RATE (%) | | | | | | |
| TOTAL | 2.4 | 2.6 | 2.6 | 2.0 | 2.7 | 2.9 |
| URBAN | 3.6 | 4.2 | 4.0 | 6.8 | 7.9 | 5.0 |
| URBAN POPULATION (% OF TOTAL) | 29.2 | 34.6 | 37.2 | 20.0 | 32.0 | 53.0 |
| AGE STRUCTURE (PERCENT) | | | | | | |
| 0 TO 14 YEARS | 42.0 | 41.9 | 41.6 | 43.0 | 46.7 | 45.0 /a |
| 15 TO 64 YEARS | 54.0 | 54.6 | 55.0 | 54.0 | 50.9 | 52.0 /a |
| 65 YEARS AND OVER | 3.6 | 3.5 | 3.4 | 3.0 | 2.4 | 3.0 /a |
| AGE DEPENDENCY RATIO | | | | | | |
| ECONOMIC DEPENDENCY RATIO | 0.9 | 0.8 | 0.8 | 0.9 | 1.0 | 0.9 /a |
| | 1.0 /a | 1.0 /a | 1.0 /a | 1.2 | 1.5 /a | 1.5 |
| FAMILY PLANNING | | | | | | |
| ACCEPTORS (CUMULATIVE, THOU) | .. | .. | .. | .. | 20.7 | .. |
| USERS (% OF MARRIED WOMEN) | .. | .. | .. | .. | .. | .. |
| EMPLOYMENT | | | | | | |
| TOTAL LABOR FORCE (THOUSAND) | 2000.0 /b | 2300.0 | 2500.0 | 2800.0 | 800.0 | 4300.0 /a |
| LABOR FORCE IN AGRICULTURE (%) | 67.0 /b | 65.0 /c | 65.0 /b | 82.0 | 65.0 | 45.0 /a |
| UNEMPLOYED (% OF LABOR FORCE) | 14.0 /b | 16.0 | 16.0 | .. | 8.0 | 5.0 /b |
| INCOME DISTRIBUTION | | | | | | |
| % OF PRIVATE INCOME REC'D BY- | | | | | | |
| HIGHEST 5% OF HOUSEHOLDS | .. | 36.0 /b | .. | .. | 32.9 /b | 31.4 /c |
| HIGHEST 20% OF HOUSEHOLDS | .. | 59.0 /b | .. | .. | 65.3 /b | 62.6 /c |
| LOWEST 20% OF HOUSEHOLDS | .. | 4.0 /b | .. | .. | 1.6 /b | 1.8 /c |
| LOWEST 40% OF HOUSEHOLDS | .. | 13.0 /b | .. | .. | 6.4 /b | 7.3 /c |
| DISTRIBUTION OF LAND OWNERSHIP | | | | | | |
| % OWNED BY TOP 10% OF OWNERS | .. | .. | .. | .. | 57.3 | 93.0 |
| % OWNED BY SMALLEST 10% OWNERS | .. | .. | .. | .. | 0.5 | 0.1 |
| HEALTH AND NUTRITION | | | | | | |
| POPULATION PER PHYSICIAN | 3700.0 /c | 2300.0 | .. | 25960.0 | 3710.0 /c | 1920.0 |
| POPULATION PER NURSING PERSON | .. | 2730.0 | 2370.0 /c | 2470.0 | .. | 3200.0 |
| POPULATION PER HOSPITAL BED | 580.0 | 490.0 | .. | 480.0 | 570.0 | 470.0 |
| PER CAPITA SUPPLY OF - | | | | | | |
| CALORIES (% OF REQUIREMENTS) | 69.0 | 77.0 | 79.0 | 96.0 | 96.0 | 98.0 |
| PROTEIN (GRAMS PER DAY) | 43.0 | 46.0 | 46.0 | 59.0 | 58.0 | 62.0 |
| - OF WHICH ANIMAL AND PULSE | .. | 14.0 /c | .. | 23.0 /a | 23.0 | 24.0 |
| DEATH RATE (/THOU) AGES 1-4 | 11.0 /b | 7.4 | .. | .. | 10.0 | 12.4 |
| EDUCATION | | | | | | |
| ADJUSTED ENROLLMENT RATIO | | | | | | |
| PRIMARY SCHOOL | 67.0 /d | 71.0 /e | 73.0 /d | 108.0 | 86.0 /d | 107.0 |
| SECONDARY SCHOOL | 11.0 /d | 20.0 /e | 31.0 /d | 9.8 /c | 10.0 /d | 35.0 |
| YEARS OF SCHOOLING PROVIDED (FIRST AND SECOND LEVEL) | 14.0 | 12.0 | 12.0 | 14.0 /b | 12.0 | 12.0 |
| VOCATIONAL ENROLLMENT (% OF SECONDARY) | | | | | | |
| ADULT LITERACY RATE (%) | 14.0 | 13.0 /d | 10.0 /e | 22.0 | 18.0 | 19.0 /d |
| | .. | 40.0 | .. | 12.0 | .. | .. |
| HOUSING | | | | | | |
| PERSONS PER ROOM (AVERAGE) | | | | | | |
| OCCUPIED DWELLINGS WITHOUT PIPED WATER (%) | 89.0 /a | .. | .. | .. | .. | .. |
| ACCESS TO ELECTRICITY (% OF ALL DWELLINGS) | 22.0 /c | .. | .. | .. | .. | .. |
| RURAL DWELLINGS CONNECTED TO ELECTRICITY (%) | 8.0 /c | .. | .. | .. | .. | .. |
| CONSUMPTION | | | | | | |
| RADIO RECEIVERS (PER THOU POP) | 73.0 | 288.0 | .. | 36.0 | 57.0 | 134.0 |
| PASSENGER CARS (PER THOU POP) | 3.0 | 4.0 | .. | 6.0 | 5.0 | 17.0 |
| ELECTRICITY (KWH/YR PER CAP) | 118.0 | 160.0 | 177.0 /c | 201.0 | 127.0 | 407.0 |
| NEWSPRINT (KG/YR PER CAP) | 1.0 | 1.0 | 0.9 | .. | 1.0 | 3.6 |

SEE NOTES AND DEFINITIONS ON REVERSE

NOTES

Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961, for 1970 between 1968 and 1970, and for Most Recent Estimate between 1971 and 1973.

** Peru has been selected as an objective country because of similar natural conditions and comparable human and resource endowments.

| | | | |
|-----------------|------|-----------------------|---|
| <u>BOLIVIA</u> | 1960 | /a | Ratio of population under 15 and 65 and over to total labor force; /b 1965; /c 1963; /d 7-12 and 13-18 years of age respectively; /e As percentage of labor force in employment. |
| | 1970 | /a | Ratio of population under 15 and 65 and over to total labor force; /b Population; /c 1964-66; /d Between 1965 and 1970 the duration of general secondary education was reduced from 6 to 4 years, /e 6-13 and 14-17 years of age respectively; /f As percentage of labor force in employment. |
| | | MOST RECENT ESTIMATE: | /a Ratio of population under 15 and 65 and over to total labor force; /b As percentage of labor force in employment; /c Including midwives; /d 6-13 and 14-17 years of age respectively; /e Between 1965 and 1970 the duration of general secondary education was reduced from 6 to 4 years; /f 1974. |
| <u>CAMEROON</u> | 1970 | /a | 1964-66; /b 13 years for East Cameroon; /c 12-18 years of age. |
| <u>HONDURAS</u> | 1970 | /a | Ratio of population under 15 and 65 and over to total labor force; /b 1967-68; /c Registered, not all practicing in the country; /d 7-12 and 13-18 years of age respectively. |
| <u>PERU</u> | 1970 | /a | Excludes Indian jungle population; /b Urban areas only; /c Economically active population, /d Including evening schools. |

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DEFINITIONS OF SOCIAL INDICATORS

| | | | | |
|--|--|--|--|---|
| <u>Land Area (thou km²)</u> | | | | <u>Population per nursing person</u> - Population divided by number of practicing male and female graduate nurses, "trained" or "certified" nurses, and auxiliary personnel with training or experience. |
| <u>Total</u> - Total surface area comprising land area and inland waters. | | | | <u>Population per hospital bed</u> - Population divided by number of hospital beds available in public and private general and specialized hospital and rehabilitation centers; excludes nursing homes and establishments for custodial and preventive care. |
| <u>Agric.</u> - Most recent estimate of agricultural area used temporarily or permanently for crops; pastures, market & kitchen gardens or to lie fallow. | | | | <u>Per capita supply of calories (% of requirements)</u> - 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 distributions of population, and allowing 10% for waste at household level. |
| <u>GNP per capita (US\$)</u> - GNP per capita estimates at market prices, calculated by same conversion method as World Bank Atlas (1972-74 basis). | | | | <u>Per capita supply of protein (grams per day)</u> - 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 USM Economic Research Services provide for a minimum allowance of 60 grams of total protein per day, and 20 grams of animal and pulse protein, of which 10 grams should be animal proteins 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. |
| <u>Population and vital statistics</u> | | | | <u>Per capita protein supply from animal and pulse</u> - Protein supply of food derived from animals and pulses in grams per day. |
| <u>Population (mid-yr. million)</u> - As of July first; if not available, average of two end-year estimates. | | | | <u>Death rate (/thou) ages 1-4</u> - Annual deaths per thousand in age group 1-4 years, to children in this age group; suggested as an indicator of malnutrition. |
| <u>Population density - per square km</u> - Mid-year population per square kilometer (100 hectares) of total area. | | | | <u>Education</u> |
| <u>Population density - per square km of agríc. land</u> - Computed as above for agricultural land only. | | | | <u>Adjusted enrollment ratio - primary school</u> - Enrollment of all ages as percentage of primary school-age population; includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education, enrollment may exceed 100% since some pupils are below or above the official school age. |
| <u>Vital statistics</u> | | | | <u>Adjusted enrollment ratio - secondary school</u> - Computed as above; secondary education requires at least four years of approved primary instruction; provides general, vocational or teacher training instructions for pupils of 12 to 17 years of age, correspondence courses are generally excluded. |
| <u>Crude birth rate per thousand</u> - Annual live births per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970, and five-year average ending in 1975 for most recent estimate. | | | | <u>Years of schooling provided (first and second levels)</u> - Total years of schooling; at secondary level, vocational instruction may be partially or completely excluded. |
| <u>Crude death rate per thousand</u> - Annual deaths per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970, and five-year average ending in 1975 for most recent estimate. | | | | <u>Vocational enrollment (% of secondary)</u> - Vocational institutions include technical, industrial or other programs which operate independently or as departments of secondary institutions. |
| <u>Infant mortality rate (thou)</u> - Annual deaths of infants under one year of age per thousand live births. | | | | <u>Adult literacy rate (%)</u> - Literate adults (able to read and write) as percentage of total adult population aged 15 years and over. |
| <u>Life expectancy at birth (yrs)</u> - Average number of years of life remaining at birth, usually five-year averages ending in 1960, 1970 and 1975 for developing countries. | | | | <u>Housing</u> |
| <u>Gross reproduction rate</u> - Average number of live 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 1975 for developing countries. | | | | <u>Persons per room (average)</u> - Average number of persons per room in occupied conventional dwellings in urban areas; dwellings exclude non-permanent structures and unoccupied parts. |
| <u>Population growth rate (%) - total</u> - Compound annual growth rates of mid-year population for 1950-60, 1960-70, and 1960 to most recent year. | | | | <u>Occupied dwellings without piped water (%)</u> - Occupied conventional dwellings in urban and rural areas without inside or outside piped water facilities as percentage of all occupied dwellings. |
| <u>Population growth rate (%) - urban</u> - Computed like growth rate of total population; different definitions of urban areas may affect comparability of data among countries. | | | | <u>Access to electricity (% of all dwellings)</u> - Conventional dwellings with electricity in living quarters as percent of total dwellings in urban and rural areas. |
| <u>Urban population (% of total)</u> - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries. | | | | <u>Rural dwellings connected to electricity (%)</u> - Computed as above for rural dwellings only. |
| <u>Age structure (percent)</u> - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population. | | | | <u>Consumption</u> |
| <u>Age dependency ratio</u> - Ratio of population under 15 and 65 and over to those of ages 15 through 64. | | | | <u>Radio receivers (per thou pop)</u> - 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. |
| <u>Economic dependency ratio</u> - Ratio of population under 15 and 65 and over to the labor force in age group of 15-64 years. | | | | <u>Passenger cars (per thou pop)</u> - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles. |
| <u>Family Planning - acceptors (cumulative, thou)</u> - Cumulative number of acceptors of birth-control devices under auspices of national family planning program since inception. | | | | <u>Electricity (kwh/yr per cap)</u> - Annual consumption of industrial, commercial, public and private electricity in kilowatt hours per capita, generally based on production data, without allowance for losses in grids but allowing for imports and exports of electricity. |
| <u>Family planning - users (% of married women)</u> - Percentages of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group. | | | | <u>Newsprint (kg/yr per cap)</u> - Per capita annual consumption in kilograms estimated from domestic production plus net imports of newsprint. |
| <u>Employment</u> | | | | |
| <u>Total labor force (thousand)</u> - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc., definitions in various countries are not comparable. | | | | |
| <u>Labor force in agriculture (%)</u> - Agricultural labor force (in farming, forestry, hunting and fishing) as percentage of total labor force. | | | | |
| <u>Unemployed (% of labor force)</u> - Unemployed are usually defined as persons who are able and willing to take a job, out of a job on a given day, remained out of a job, and seeking work for a specified minimum period not exceeding one week; may not be comparable between countries due to different definitions of unemployed and source of data, e.g., employment office statistics, sample surveys, compulsory unemployment insurance. | | | | |
| <u>Income distribution</u> - Percentage of private income (both in cash and kind) received by richest 5%, richest 20%, poorest 20%, and poorest 40% of households. | | | | |
| <u>Distribution of land ownership</u> - Percentages of land owned by wealthiest 10% and poorest 10% of land owners. | | | | |
| <u>Health and Nutrition</u> | | | | |
| <u>Population per physician</u> - Population divided by number of practicing physicians qualified from a medical school at university level. | | | | |

BOLIVIA

ECONOMIC DEVELOPMENT DATA
(Amounts in 1973 US\$ Millions)

| | Actual | | Estimated | | Projected | | 1968-71 | 1971-73 | 1974-77 | 1978-80 | 1968 | 1971 | 1977 |
|--|--|---------|-------------------|---------|--------------------------|---|---|---------------------------|---------|--------------------|----------------------------|--------|----------|
| | 1968 | 1971 | 1973 | 1975 | 1977 | 1980 | | | | | | | |
| NATIONAL ACCOUNTS | 3-Year Average at 1973 Prices & Exchange Rate | | | | | | Average Annual Growth Rates | | | | As Percent of GDY | | |
| Gross Domestic Product | 826.3 | 921.6 | 1,035.3 | 1,138.1 | 1,296.7 | 1,617.9 | 3.7 | 6.0 | 7.8 | 11.7 | 98.7 | 98.0 | 96.3 |
| Terms of Trade Effect | 10.1 | 19.0 | 50.7 | 25.8 | 49.5 | 78.6 | - | - | - | - | 1.3 | 2.0 | 3.7 |
| Gross Domestic Income | 836.4 | 940.6 | 1,086.0 | 1,163.9 | 1,346.2 | 1,696.5 | 4.0 | 7.4 | 7.4 | 12.3 | 100.0 | 100.0 | 100.0 |
| Imports (incl. NFS) | 301.4 | 303.8 | 347.7 | 502.7 | 549.8 | 676.4 | 0.3 | 7.0 | 16.5 | 10.9 | 36.0 | 32.3 | 40.8 |
| Exports " (import capacity) | 265.2 | 276.2 | 351.4 | 346.4 | 441.1 | 593.9 | 1.4 | 12.8 | - | 16.0 | 31.7 | 29.4 | 32.8 |
| Resource Balance (-Surplus) | 36.2 | 27.6 | -18.2 | 156.3 | 82.5 | - | - | - | - | - | 4.3 | 2.9 | 8.1 |
| Consumption Expenditures | 688.2 | 776.9 | 896.4 | 1,041.8 | 1,063.4 | 1,291.8 | 4.1 | 7.4 | 5.8 | 10.2 | 82.3 | 82.6 | 79.0 |
| Investment " (incl. stocks) | 184.3 | 191.3 | 185.9 | 278.4 | 391.6 | 487.3 | 1.2 | negative | 28.0 | 11.6 | 22.0 | 20.3 | 29.1 |
| Domestic Savings | 148.1 | 163.7 | 189.6 | 266.6 | 282.8 | 404.8 | 3.4 | 7.6 | 14.3 | 19.7 | 17.7 | 17.4 | 21.0 |
| National Savings | 128.1 | 146.5 | 177.9 | 250.1 | 258.9 | 339.5 | 4.6 | 10.1 | 13.3 | 14.5 | 15.3 | 15.6 | 19.2 |
| MERCHANDISE TRADE | Annual Data at Current Prices | | | | | | Average Annual Growth Rates | | | | As Percent of Total | | |
| Imports | 71.8 | 71.1 | 119.0 | 270.0 | 414.2 | 680.9 | negative | 29.0 | 52.0 | 28.0 | 47.0 | 42.3 | 58.8 |
| Capital Goods | 47.3 | 52.2 | 67.1 | 113.7 | 169.4 | 276.6 | 3.3 | 13.4 | 36.0 | 28.0 | 31.0 | 31.0 | 24.0 |
| Raw Materials and Intermediate Goods | 1.6 | 1.2 | 2.2 | 10.3 | 12.7 | 17.9 | negative | 35.0 | 78.0 | 18.7 | 1.0 | 0.8 | 1.8 |
| Fuels and Lubricants | 32.1 | 43.5 | 67.2 | 120.0 | 108.3 | 141.1 | 10.7 | 24.0 | 17.3 | 14.1 | 21.0 | 25.9 | 15.4 |
| Consumption Goods | 152.8 | 168.0 | 255.5 | 514.0 | 704.6 | 1,116.5 | 3.2 | 23.5 | 40.0 | 26.0 | 100.0 | 100.0 | 100.0 |
| Others | 145.8 | 191.4 | 268.3 | 277.7 | 386.1 | 588.1 | 9.6 | 18.4 | 17.1 | 16.8 | 85.5 | 88.7 | 65.4 |
| Total Merchandise Imports (CIF) | 24.3 | 23.9 | 67.0 | 163.4 | 198.5 | 503.6 | negative | 67.0 | 62.0 | 50.0 | 14.3 | 11.1 | 33.6 |
| Exports | (24.3) | (23.9) | (48.9) | (114.6) | (140.0) | (367.0) | negative | 43.0 | 61.0 | 57.0 | (14.3) | (11.1) | (23.7) |
| Primary Products | 0.4 | 0.6 | 3.0 | 3.9 | 5.4 | 8.3 | 23.0 | - | 22.0 | 24.0 | 2 | 2 | 1.0 |
| Fuels | 170.5 | 215.9 | 338.3 | 445.0 | 590.0 | 1,100.0 | 8.2 | 25.0 | 29.0 | 33.0 | 100.0 | 100.0 | 100.0 |
| o/w Crude Petroleum | | | | | | | | | | | | | |
| Manufactured Goods | | | | | | | | | | | | | |
| Total Merch. Exports (fob) | | | | | | | | | | | | | |
| Merchandise Trade Indices | 66.7 | 76.4 | 100.0 | 158.6 | 194.0 | 249.0 | 4.6 | 14.4 | 24.8 | 13.3 | 21.6 | 22.7 | 32.4 |
| Export Price Index | 66.0 | 75.9 | 100.0 | 138.0 | 173.0 | 214.9 | 4.8 | 14.8 | 20.0 | 11.5 | 21.3 | 22.6 | 28.8 |
| Import Price Index | 101.1 | 100.6 | 100.0 | 114.9 | 113.0 | 119.3 | negative | negative | 4.2 | 2.8 | 32.7 | 30.0 | 18.8 |
| Terms of Trade Index | 75.4 | 83.5 | 100.0 | 83.0 | 119.7 | 166.9 | 3.5 | 9.4 | 6.0 | 18.1 | 24.4 | 24.7 | 20.0 |
| Exports Volume Index | | | | | | | | | | | | | |
| VALUE ADDED BY SECTOR | Annual Data at 1973 Prices and Exchange Rates | | | | | | Average Annual Growth Rates | | | | As Percent of Total | | |
| Agriculture | 186.8 | 201.6 | 222.6 | 248.2 | 273.0 | 320.0 | 2.5 | 5.1 | 7.1 | 8.3 | 22.5 | 21.9 | 21.2 |
| Industry and Mining | 279.7 | 303.4 | 338.6 | 351.8 | 412.6 | 534.4 | 2.7 | 5.6 | 6.8 | 13.8 | 33.6 | 33.0 | 32.0 |
| Fuels | 365.1 | 414.0 | 477.7 | 538.1 | 604.7 | 757.2 | 4.3 | 7.4 | 8.2 | 11.9 | 43.9 | 45.1 | 46.8 |
| Service | 831.6 | 919.0 | 1,038.9 | 1,138.1 | 1,290.3 | 1,611.6 | 3.4 | 6.3 | 7.5 | 11.8 | 100.0 | 100.0 | 100.0 |
| Total (=GDP) | | | | | | | | | | | | | |
| PUBLIC FINANCE | Annual Data at 1973 Prices and Exchange Rates | | | | | | Average Annual Growth Rates | | | | As Percent of Total | | |
| (Central Government) | 107.6 | 112.2 | 109.2 | 109.5 | 140.3 | 188.0 | 4.3 | -2.4 | 6.5 | 10.2 | 11.9 | 11.5 | 10.8 |
| Current Receipts | 103.9 | 134.4 | 145.3 | 168.5 | 190.1 | 239.9 | 7.9 | 6.3 | 6.9 | 8.1 | 11.5 | 13.8 | 14.7 |
| Current Expenditures | 3.7 | -22.2 | -36.1 | -59.0 | -49.8 | -51.9 | - | - | - | - | 0.4 | -2.3 | -3.9 |
| Budgetary Savings | 29.3 | 54.4 | 98.2 | 90.0 | 134.1 | 219.2 | - | - | - | - | 3.2 | 5.6 | 6.5 |
| Other Public Sector Savings | 108.2 | 112.6 | 98.8 | 147.5 | 267.7 | 301.4 | 9.5 | -5.8 | 28.2 | 4.0 | 12.0 | 11.6 | 20.7 |
| Public Sector Capital Expenditure | | | | | | | | | | | | | |
| CURRENT EXPENDITURE DETAILS | Actual | | | | | | DETAIL ON PUBLIC SECTOR INVESTMENT PROGRAM | | | | As Percent of Total | | |
| (As % Total Current Expend.) | 1968-70 | 1971-72 | | | | | | | | | (1968-74 | 1974 | 1975-80) |
| Central Administration | 28.7 | 25.9 | | | | | Agriculture and Irrigation | | | | 3.0 | - | 3.8 |
| Defense | 13.5 | 12.8 | | | | | Mining and Hydrocarbons | | | | 39.8 | - | 61.1 |
| Education | 27.3 | 26.3 | | | | | Industry and Power | | | | 14.9 | - | 9.0 |
| Other Social & Community Serv. | 9.3 | 13.5 | | | | | Transport and Communications | | | | 24.0 | - | 17.4 |
| Agriculture | 3.5 | 3.0 | | | | | Public Serv. and Social Services | | | | 18.3 | - | 8.7 |
| Other | 17.7 | 18.5 | | | | | Other | | | | - | - | - |
| SELECTED INDICATORS | Actual | | Estimated | | Projected | | FINANCING | | | | Estimated | | |
| (Calculated from 5-Yr Averaged Data) | 1968-70 | 1971-74 | 1975-77 | 1978-80 | | | | | 1968-73 | 1974 | 1975-80 | | |
| Average ICOR | 6.45 | 3.00 | 3.67 | 4.06 | Public Sector Savings | | | | 39.8 | 91.8 | 44.4 | | |
| Import Elasticity | 0.91 | 1.06 | 1.13 | 1.03 | Domestic Borrowing (net) | | | | 16.6 | -44.0 | 16.9 | | |
| Marginal Domestic Savings Rate | 64.9% | 24.2% | 3.6% | 37.4% | Foreign Borrowing (net) | | | | 46.4 | 29.1 | 38.6 | | |
| Marginal National Savings Rate | 20.5% | 28.4% | negative | 22.0% | Other | | | | -2.9 | 23.1 | - | | |
| LABOR FORCE AND OUTPUT PER WORKER | Employed Labor Force | | | | | Value Added Per Worker (1973 Prices & Exchange Rate) | | | | | | | |
| | In Thousands | | % of Total | | 1970-1974 | In U.S. Dollars | | Percent of Average | | Change p.a. | | | |
| | 1970 | 1974 | 1970 | 1974 | Growth Rate | 1960 | 1970 | 1960 | 1970 | 1970-74 | | | |
| Agriculture | 1,271.0 | 1,383.1 | 65.4 | 64.4 | 2.1 | 15.14 | 170.0 | 33.8 | 33.4 | 2.9 | | | |
| Industry | 264.2 | 300.6 | 13.6 | 14.0 | 3.3 | 1,067.8 | 1,147.6 | 238.4 | 225.8 | 2.0 | | | |
| Service | 407.1 | 463.0 | 21.0 | 2.16 | 3.3 | 938.9 | 1,068.4 | 209.6 | 210.2 | 3.3 | | | |
| Total | 1,942.3 | 2,146.7 | 100.0 | 100.0 | 2.5 | 447.9 | 508.2 | 100.0 | 100.0 | 3.2 | | | |

1/ Excluding taxes from export enterprises
- Not applicable
- Nil or negligible

BOLIVIA

SUMMARY: BALANCE OF PAYMENTS
(Current U.S. \$ millions)

| | <u>1972</u> | <u>1973</u> | <u>1974</u> | <u>1975</u> | <u>1976</u> | <u>1977</u> | <u>1978</u> | <u>1979</u> | <u>1980</u> | <u>1985</u> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1. Imports (Cif) | 261 | 332 | 504 | 664 | 700 | 817 | 980 | 1,150 | 1,240 | 2,521 |
| 2. Exports (Cif) | 225 | 310 | 614 | 490 | 550 | 650 | 780 | 960 | 1,160 | 2,880 |
| 3. Balance of Goods & NFS | -36 | -22 | 94 | -195 | -190 | -215 | -255 | -245 | -140 | 359 |
| 4. Factor Services | -22 | -25 | -31 | -35 | -37 | -44 | -53 | -102 | -133 | -197 |
| Profits | (-6) | (-6) | (-7) | (-9) | (-11) | (-12) | (-14) | (-50) | (-69) | (-106) |
| Other (Net) | (-16) | (-19) | (-24) | (-26) | (-26) | (-32) | (-39) | (-52) | (-64) | (-92) |
| 5. Current Transfers | 13 | 15 | 12 | 12 | 12 | 12 | 5 | 3 | 3 | -- |
| 6. Current Account Balance | -44 | -32 | 50 | -218 | -215 | -247 | -303 | -344 | -270 | 162 |
| 7. Direct Foreign Investment | -13 | 5 | 10 | 18 | 35 | 58 | 75 | 89 | 90 | 30 |
| 8. Official Capital Grants | 8 | 10 | 9 | 20 | 25 | 27 | 28 | 26 | 20 | 2 |
| 9. Public M & LT Loans (Net) | 93 | 5 | 41 | 118 | 130 | 142 | 182 | 219 | 141 | -23 |
| Disbursements | (125) | (38) | (95) | (178) | (192) | (216) | (266) | (329) | (280) | (199) |
| Repayments | (32) | (33) | (54) | (-48) | (-62) | (-74) | (-84) | (-110) | (-139) | (-222) |
| 10. Other M & LT Loans (Net) | 15 | 17 | 21 | 23 | 25 | 39 | 42 | 48 | 60 | 10 |
| 11. IMF Drawings | 1 | 12 | -- | -- | -- | -- | -- | -- | -- | -- |
| 12. Other Short Term Errors & Omissions ^{1/} | -42 | -20 | -15 | -16 | -10 | -5 | -- | -- | -- | -- |
| 13. Change in Net Reserves (-Increase) | -17 | 15 | -123 | 55 | 10 | -14 | -24 | -38 | -41 | -181 |
| 14. Total Net Reserves (End of Period) | 47 | 31 | 154 | 99 | 89 | 103 | 127 | 165 | 206 | 720 |
| 15. Debt Service Ratio | 20.9 | 16.8 | 12.9 | 11.4 | 14.5 | 16.4 | 16.5 | 17.4 | 17.8 | 12.2 |
| 16. External Public Debt OS ^{2/} | 681 | 698 | 723 | | | | | | | |
| o/w IBRD | (23) | (23) | (21) | | | | | | | |
| IDA | (26) | (30) | (39) | | | | | | | |
| 17. IBRD-IDA Debt Service as % of Public Debt Service | 3.1 | 4.8 | 4.0 | | | | | | | |
| 18. Debt Service as % of GDP | 4.6 | 4.9 | 4.5 | | | | | | | |

^{1/} Includes SDR allocation equivalent to US\$4.3 million in 1972.

CONTRACTED PUBLIC AND PUBLICLY GUARANTEED EXTERNAL DEBT,^{1/} 1969-75
(US\$ millions)

| | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 |
|------------------------------------|-------------|--------------|-------------|--------------|-------------|--------------|--------------|
| <u>International Organizations</u> | <u>30.7</u> | <u>1.4</u> | <u>26.8</u> | <u>11.2</u> | <u>7.2</u> | <u>41.2</u> | <u>137.1</u> |
| CAF | - | - | 0.1 | 2.0 | 1.2 | - | 41.8 |
| IBRD | 23.3 | - | - | - | - | - | 32.0 |
| IDA | 7.4 | 1.4 | 6.8 | 8.0 | 6.0 | 6.2 | 7.5 |
| IDB | - | - | 19.9 | 1.2 | - | 35.0 | 55.9 |
| <u>Governments</u> | <u>30.0</u> | <u>17.2</u> | <u>35.2</u> | <u>71.7</u> | <u>34.1</u> | <u>64.0</u> | <u>106.1</u> |
| Argentina | 3.2 | 14.3 | 4.3 | 4.2 | 3.4 | 2.9 | - |
| Czechoslovakia | - | - | 3.9 | 1.4 | - | - | - |
| Germany F.R. | 1.7 | 1.4 | - | - | - | 28.6 | - |
| United Kingdom | 1.4 | - | - | 6.8 | - | - | - |
| USA | 22.7 | 1.5 | 25.3 | 40.0 | 26.5 | 28.8 | 22.1 |
| USSR | - | - | - | 15.9 | - | - | - |
| Others | 1.0 | - | 1.7 | 3.4 | 4.2 | 3.7 | 84.0 |
| <u>Suppliers' Credits</u> | <u>11.5</u> | <u>1.6</u> | <u>3.9</u> | <u>27.4</u> | <u>16.6</u> | <u>8.7</u> | <u>10.1</u> |
| Argentina | - | - | 1.6 | 5.1 | 5.9 | 1.6 | - |
| Belgium | - | - | - | - | 5.8 | 0.1 | - |
| Canada | - | - | - | - | 3.7 | - | - |
| Denmark | 0.7 | 1.3 | - | 0.8 | 0.2 | - | - |
| Germany F.R. | 3.9 | 0.3 | - | - | - | - | 0.1 |
| Israel | - | - | - | - | - | - | 5.5 |
| Italy | 2.1 | - | - | 13.9 | - | - | - |
| Japan | - | - | 2.0 | 6.4 | - | - | - |
| Spain | 3.3 | - | - | - | - | - | - |
| USA | - | - | - | 1.1 | 0.9 | 1.9 | 2.4 |
| Others | 1.5 | - | 0.3 | 0.1 | 0.1 | 5.1 | 2.1 |
| <u>Private Banks</u> | <u>1.3</u> | <u>-</u> | <u>23.3</u> | <u>23.1</u> | <u>9.9</u> | <u>56.0</u> | <u>54.5</u> |
| Brazil | - | - | 12.0 | 7.9 | 4.7 | 13.5 | - |
| USA | 1.3 | - | 10.0 | 12.8 | 1.5 | 34.3 | 48.5 |
| Others | - | - | 1.3 | 2.4 | 3.7 | 8.2 | 6.0 |
| <u>Other</u> | <u>14.1</u> | <u>4.1</u> | <u>0.1</u> | <u>22.7</u> | <u>0.4</u> | <u>3.8</u> | <u>-</u> |
| <u>Nationalization (USA)</u> | <u>-</u> | <u>78.6</u> | <u>-</u> | <u>-</u> | <u>0.7</u> | <u>-</u> | <u>-</u> |
| <u>TOTAL^{2/}</u> | <u>87.6</u> | <u>102.9</u> | <u>89.3</u> | <u>156.1</u> | <u>68.9</u> | <u>173.7</u> | <u>307.8</u> |

1/ Repayable in foreign currency only.

2/ Net of adjustments and cancellations.

Source: Central Bank, IBRD Social and Economic Data Division.

THE STATUS OF BANK GROUP OPERATIONS IN BOLIVIA

A. STATEMENT OF BANK LOANS AND IDA CREDITS (as of July 31, 1976)

| <u>Loan or Credit No.</u> | <u>Year</u> | <u>Borrower</u> | <u>Purpose</u> | <u>US\$ million</u> | | |
|-----------------------------------|-------------|-----------------|----------------|------------------------------------|------------|--------------------|
| | | | | <u>Amount (less cancellations)</u> | | |
| | | | | <u>Bank</u> | <u>IDA</u> | <u>Undisbursed</u> |
| Fully disbursed loans and credits | | | | 23.3 | 30.6 | - |
| 261 | 1971 | Bolivia | Livestock | | 6.8 | 1.4 |
| 346 | 1972 | Bolivia | Railways | | 8.0 | 0.3 |
| 433 | 1973 | Bolivia | Power | | 6.0 | 0.2 |
| 455 | 1974 | Bolivia | Mining | | 6.2 | 3.4 |
| 561 | 1975 | Bolivia | Agriculture | | 7.5 | 7.3 |
| 1121 | 1975 | ENFE | Railways | 28.7 | | 20.3 |
| 1211 | 1976 | Bolivia | Rural Dev. | 9.5 <u>/1</u> | | 9.5 |
| 1238 | 1976 | ENDE IV | Power | <u>25.0</u> | | <u>25.0</u> |
| TOTAL | | | | 86.5 <u>/2</u> | 65.1 | 67.4 |
| Of which has been repaid | | | | <u>4.4</u> | <u>0.4</u> | |
| Total held by Bank and IDA | | | | 82.1 | 64.7 | |
| Total undisbursed | | | | | | <u>67.4</u> |

/1 Not yet effective.

/2 A loan of US\$10.0 million for a mining and manufacturing project was approved on June 22, 1976 but has not yet been signed.

B. STATEMENT OF IFC INVESTMENTS (as of July 31, 1976)

| <u>Year</u> | <u>Obligor</u> | <u>Type of Business</u> | <u>Amount in US\$ million</u> | | |
|-------------|----------------------------|-----------------------------|-------------------------------|---------------|--------------|
| | | | <u>Loan</u> | <u>Equity</u> | <u>Total</u> |
| 1973 | Plasmar, S.A. | Cables and Plastic Products | 0.3 /1 | 0.1 | 0.4 |
| 1976 | Banco Hipotecario Nacional | Mortgage Financing | | 0.3 | 0.3 |
| 1976 | BISA | Investment Financing | — | 0.6 | 0.6 |
| | | | <u>0.3</u> | <u>1.0</u> | <u>1.3</u> |

/1 Of which, US\$0.1 million is a standby loan.

C. PROJECTS IN EXECUTION

Credit 261-BO - Third Livestock Development Project, US\$6.8 million, June 25, 1971; Effective Date: September 15, 1971; Closing Date: June 30, 1977.

After implementation slowed down in 1974, the project is now proceeding as scheduled and the credit should be fully disbursed by the closing date of June 30, 1977.

Credit 346-BO - Railway Project, US\$8 million, December 1, 1972; Effective Date: February 21, 1973; Closing Date: December 31, 1976

All of the funds under the project have been committed. Due to inflation, however, the funds available under the credit have been insufficient to procure all of the items included in the project. About 50% of the items planned for procurement for the first project, have been deferred for purchasing under the second railway project. Materials and equipment ordered under the project did not begin to arrive in Bolivia until the last quarter of 1974. Improvements have been made in the management operations, financial condition and tariff structure of the railway.

Credit 433-BO - Third ENDE Power Project, US\$6 million, October 17, 1973; Effective Date: December 11, 1973; Closing Date: December 31, 1976

The project was initially delayed due to unexpected long delivery time for the gas turbines originally planned to be installed at Santa Cruz. Project progress is now satisfactory. Cost overruns are currently at about 34% over the original estimates of project cost. ENDE will finance the overruns with its own funds.

Credit 455-BO - Mining Credit Project, US\$6.2 million, January 18, 1974;
Effective Date: June 18, 1974; Closing Date: June 30, 1978.

The project is proceeding as scheduled.

Loan 561-BO - Agricultural Credit I, US\$7.5 million, June 20, 1975;
Effective Date: December 15, 1975; Closing Date: June 30, 1979.

The project is proceeding as scheduled.

Loan 1121-BO - Second Railway Project, US\$28.7 million, June 5, 1975;
Effective Date: August 8, 1975; Closing Date: December 31, 1978.

The Borrower has arranged bilateral financing for locomotives in the project and in accordance with the understanding reached with the Bank, the loan amount has been adjusted downward from \$32 million to \$28.7 million. Project progress has been satisfactory with performance targets either having been attained or exceeded.

Loan 1238-BO - Fourth ENDE Power Project, US\$25 million, June 2, 1976;
Effective Date: August 23, 1976; Closing Date: June 30, 1980.

The project is proceeding as scheduled.

Loan 1211-BO - Ingavi Rural Development Project, US\$9.5 million, March 8, 1976; Effective Date: _____; Closing Date: June 30, 1982.

It is anticipated that the loan will become effective in the near future.

BOLIVIA

URBAN AND RURAL COMMUNITIES WATER SUPPLY AND SEWERAGE PROJECT

Loan and Project Summary

Borrower: Republic of Bolivia.

Beneficiaries: The Water and Sewerage Corporation (CORPAGUAS), US\$4.8 million; the Sanitary Works Administration of Potosi (AAPOS), US\$1.7 million; and the Water Supply and Sewerage Company of Sucre (ELAPAS), US\$5.0 million.

Amount: US\$11.5 million.

Terms: Amortization in 20 years including four-and-one-half years of grace with interest at 8.9% per annum.

Relending Terms: To AAPOS and ELAPAS, 22 years including three years of grace, no interest during grace period and standard Bank rate thereafter, and a grant to CORPAGUAS.

Project Description: (i) Construction of water supply systems in about 70 rural communities and in the cities of Potosi and Sucre, including engineering and design studies; (ii) construction of sewerage facilities in Sucre; and (iii) technical assistance to strengthen the executing agencies and the Division of Urban Engineering in the Ministry of Housing and Urban Affairs.

Estimated Cost:

(US\$ million)

| | | <u>Local</u> | <u>Foreign</u> | <u>Total</u> |
|------|--------------------------------|--------------|----------------|--------------|
| I. | Construction | | | |
| | Rural Component | 0.60 | 3.20 | 3.80 |
| | Potosi Subproject | 0.30 | 0.90 | 1.20 |
| | Sucre Subproject | 0.80 | 3.20 | 4.00 |
| II. | Engineering and Administration | 1.00 | 0.10 | 1.10 |
| III. | Technical Assistance | 0.17 | 0.03 | 0.20 |
| IV. | Contingencies | | | |
| | Physical | 0.40 | 1.10 | 1.50 |
| | Price | <u>0.60</u> | <u>2.60</u> | <u>3.20</u> |
| | Total Project Cost | 3.87 | 11.13 | 15.00 |

Financing Plan:

| | Amount | % |
|----------------------------|--------------|-----|
| | US\$ million | |
| IBRD Loan | 11.5 | 70 |
| DDO/Community Contribution | 2.8 | 17 |
| Government Contribution | 2.1 | 13 |
| | 16.4* | 100 |

*Includes interest during construction of US\$1.4 million.

Estimated Disbursements:

| <u>Fiscal Year</u> | <u>(US\$ million)</u> <u>Cumulative Amount</u> |
|--------------------|---|
| 1977 | 1.80 |
| 1978 | 4.70 |
| 1979 | 4.25 |
| 1980 | 0.65 |
| 1981 | 0.10 |

Procurement Arrangements:

Pipes, accessories, meters and related equipment (estimated to cost about US\$7 million) would be procured through international competitive bidding in accordance with the Bank Guidelines. Local manufacturers will be accorded a margin of preference of 15% of the c.i.f. price, or the actual tariff, whichever is lower. Contracts for civil works estimated to cost less than US\$2.6 million would be awarded on the basis of competitive bidding advertised locally and in accordance with procedures acceptable to the Bank. The type and size of the civil works are such that overseas firms are unlikely to be interested in bidding although they would not be precluded from doing so. Because of the specialized nature and limited amount of work involved construction in some of the remote villages would be undertaken by CORPAGUAS on force account, using labor from the villages.

Consultants:

About 91 man-months of consultant services (US\$402,000), to assist in the preparation of engineering plans, specifications, bidding documents, improvement of organizations, management and accounting; and the training of personnel.

Rate of Return:

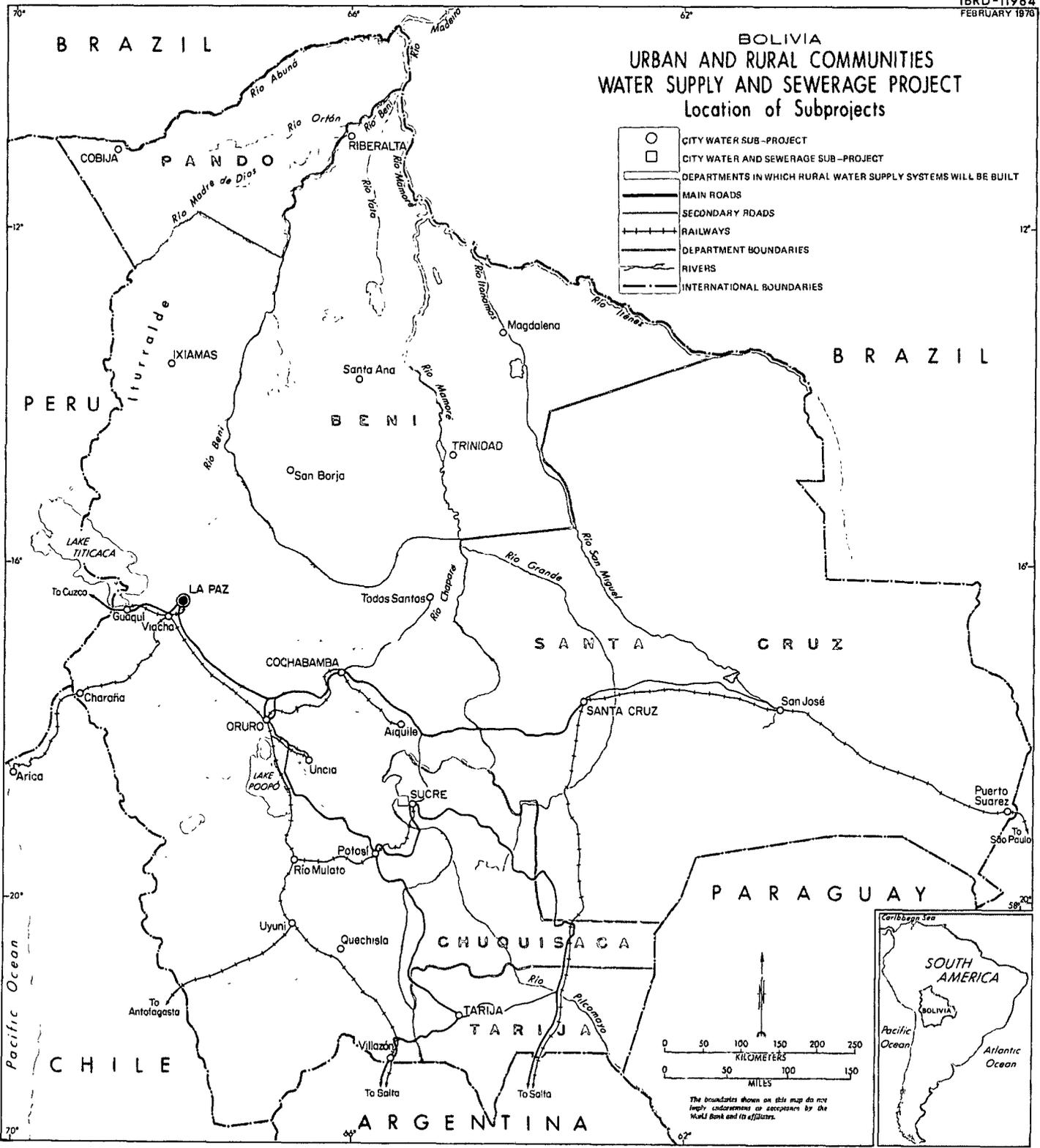
The average incremental financial rate of return on the urban water supply components which account for 35% of the total project cost is 8.1%.

Appraisal Report:

Report No. 1076b-B0 dated August 30, 1976.

BOLIVIA
URBAN AND RURAL COMMUNITIES
WATER SUPPLY AND SEWERAGE PROJECT
Location of Subprojects

- CITY WATER SUB-PROJECT
- CITY WATER AND SEWERAGE SUB-PROJECT
- ▭ DEPARTMENTS IN WHICH RURAL WATER SUPPLY SYSTEMS WILL BE BUILT
- MAIN ROADS
- - - SECONDARY ROADS
- + + + RAILWAYS
- ▬ DEPARTMENT BOUNDARIES
- ~ RIVERS
- - - INTERNATIONAL BOUNDARIES



The boundaries shown on this map do not imply endorsement or acceptance by the World Bank and its affiliates.