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08205

Distr.  
LIMITED

UNIDO/IOD.202  
1 August 1978

ENGLISH

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UNITED NATIONS INDUSTRIAL  
DEVELOPMENT ORGANIZATION

BOLIVIA

SMALL-SCALE INDUSTRY SURVEY\*

Prepared by  
World Bank/UNIDO Co-operative Programme

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id.78-4881

SMALL-SCALE INDUSTRIES SURVEY

CURRENCY EQUIVALENTS

US\$ 1 =  $\frac{1}{2}$  20 (Bolivian pesos) } Since 1972  
 $\frac{1}{2}$  1 = US\$ 0.05

ABBREVIATIONS

|           |   |
|-----------|---|
| ARL       | : Artisanry Refinancing Line                            |
| BAFINSA   | : Banco de Financiamiento Industrial                    |
| BANESIA   | : Banco del Estado                                      |
| BIBSA     | : Banco de Inversión Boliviano S.A.                     |
| BISA      | : Banco Industrial S.A.                                 |
| CBF       | : Corporación Boliviana de Fomento                      |
| CNI       | : Cámara Nacional de Industrias                         |
| CODESUR   | : Corporación Financiera del Sur                        |
| COFINSA   | : Corporación Financiera de Santa Cruz                  |
| COMBOPLA  | : Comité Boliviano de Fomento Lanero                    |
| COMIMOL   | : Corporación Minera de Bolivia                         |
| CONEPPLAN | : Consejo Nacional de Economía y Planificación          |
| ENFE      | : Empresa Nacional de Ferrocarriles del Estado          |
| CONEPPLAN | : Consejo Nacional de Economía y Planificación          |
| FBD       | : Fundación Boliviana de Desarrollo                     |
| FOEMEX    | : División de Fomento de las Exportaciones              |
| FOFO      | : Servicio Nacional de Formación de Mano de Obra        |
| FRI       | : Fondo de Refinanciamiento Industrial                  |
| IDB       | : Interamerican Development Bank                        |
| IBRD      | : International Bank for Reconstruction and Development |
| IFC       | : International Finance Corporation                     |
| ILO       | : International Labour Organization                     |
| INALPRE   | : Instituto Nacional de Pre-inversión                   |
| INBOPIA   | : Instituto Boliviano de Pequeña Industria y Artesanía  |
| INI       | : Instituto Nacional de Inversiones                     |
| MICT      | : Ministerio de Industria, Comercio y Turismo           |
| SSI       | : Small-Scale Industries                                |
| UNDP      | : United Nations Development Programme                  |
| UNIDO     | : United Nations Industrial Development Organization    |
| USAID     | : United States Agency for International Development    |
| YFPB      | : Yacimientos Petroliferos Fiscales Bolivianos          |

# SMALL-SCALE INDUSTRY IN BOLIVIA

## Table of Contents

## Page

|   |    |
|---|----|
| Introduction  | 1  |
| 1. <u>Summary</u>   | 2  |
| 2. <u>Characteristics of Small-Scale Industries</u>                                 | 4  |
| 2.1. Definition of SSI  | 4  |
| 2.2. The Industrial Sector in the Bolivian Economy                                  | 5  |
| 2.3. The Importance of SSI in the Bolivian Economy                                  | 8  |
| 2.4. Regional Distribution of Bolivian SSI  | 11 |
| 2.5. Survey Results   | 13 |
| 2.5.1. General Characteristics  | 13 |
| 2.5.2. Marketing  | 14 |
| 2.5.3. Procurement  | 15 |
| 2.5.4. Management   | 17 |
| 2.5.5. Labour, Skills and Wages   | 19 |
| 2.5.6. Technical Aspects  | 21 |
| 2.5.7. Financial Aspects  | 22 |
| 2.5.7.1. Reliability of Data  | 22 |
| 2.5.7.2. Profitability  | 22 |
| 2.5.7.3. Liquidity and Indebtedness   | 24 |
| 2.5.7.4. Bank Credit  | 24 |
| 3. <u>Institutional Framework</u>   | 27 |
| 3.1. Government Policies  | 27 |
| 3.2. Investment Incentives  | 29 |
| 3.3. Institutions Dealing with SSI  | 31 |
| 3.3.1. The Secretariat of the National Council for Economy and Planning (CONSEPLAN) | 31 |
| 3.3.2. Departmental Development Corporations  | 32 |
| 3.3.3. The National Institute for Investment (INI)                                  | 33 |
| 3.3.4. The Bolivian Institute for Small-Scale Industry and Artisanry (INEOPIA)      | 35 |
| 3.3.5. The National Service for Labour Training (FOMO)                              | 37 |

|          |   |    |
|----------|---|----|
| 3.3.6.   | The Division of Export Promotion (POEMEX)                           | 37 |
| 3.3.7.   | The Technical Council for the Promotion of Exports                  | 38 |
| 3.3.8.   | The National Chamber of Industries (CNI)                            | 38 |
| 3.3.9.   | Industrial Estates and Parks  | 39 |
| 3.4.     | Financial Institutions  | 40 |
| 3.4.1.   | Bolivian Government Entities  | 40 |
| 3.4.1.1. | Banco Central de Bolivia  | 40 |
| 3.4.1.2. | Corporación Boliviana de Fomento (CBF)                              | 50 |
| 3.4.1.3. | Banco del Estado (BANESIA)  | 52 |
| 3.4.1.4. | Instituto Nacional de Preinversión (INAIPRE)                        | 53 |
| 3.4.2.   | Private Commercial Banks  | 54 |
| 3.4.3.   | Private Specialized Banks   | 58 |
| 3.4.3.1. | Banco Industrial S.A. (BISA)  | 58 |
| 3.4.3.2. | Banco de Financiamiento Industrial (BAFINSA)                        | 63 |
| 3.4.3.3. | Banco de Inversión Boliviano S.A. (BIBSA)                           | 64 |
| 3.4.3.4. | Corporación Financiera de Boston S.A.                               | 65 |
| 3.4.3.5. | Corporación Financiera de Santa Cruz S.A. (COFINSA)                 | 66 |
| 3.4.3.6. | Corporación Financiera del Sur (COFESUR)                            | 67 |
| 3.4.3.7. | Bolivian Development Foundation (FED)                               | 67 |
| 4.       | <u>Conclusions and Recommendations</u>                              | 68 |
| 4.1.     | Recommendations regarding Finance                                   | 69 |
| 4.2.     | Recommendations regarding Technical Assistance                      | 71 |
| 4.3      | Recommendations regarding the Legal and<br>Administrative Framework | 73 |

LIST OF ANNEXES

| <u>ANNEXES</u> | <u>TITLES</u>  |
|----------------|--|
| 1              | Populations: Past and Future Development   |
| 2              | Labour Force in Urban and Rural Areas: Past and Future Development   |
| 3              | Shares of Economic Sectors in Gross National Product   |
| 4              | Production Value and Value Added by Major Branches of Manufacturing Industry   |
| 5              | The Urban Labour Force in 1976<br>Table 1: Urban Labour Groups<br>Table 2: Urban Employment by Sector  |
| 6              | Employment According to Size of Industrial Enterprise  |
| 7              | Statistical Data on Enterprises Visited<br>Table 1: Location of Enterprises<br>Table 2: Age of Enterprises<br>Table 3: Size as Determined by Investment in Machinery and Equipment<br>Table 4: Size as Determined by Annual Sales (1976)<br>Table 5: Size as Determined by Number of Workers<br>Table 6: Type of Employment<br>Table 7: Type of Industrial Activity<br>Table 8: Annual Sales by Industrial Activity (1976)<br>Table 9: Technical Evaluation of SSI Operations based on Visual Inspection<br>Table 10: Reasons for Low Capacity Utilization<br>Table 11: Projects for Expansion and Diversification |
| 8              | SSI: Selected Financial Data 1976  |
| 9              | SSI: Selected Financial Ratios 1976-1977   |
| 10             | Benefits and Incentives Granted by the Law of Investment   |
| 11             | INI: Projects Approved and Registered between 1972 and 1977  |
| 12             | INBOPIA: Organizational Chart  |
| 13             | Membership Composition of the National Chamber of Industries   |

List of Annexes continued

| <u>ANNEX</u> | <u>TITLE</u>  |
|--------------|---|
| 14           | Central Bank: Distribution of PRI Loans by Financial Intermediary   |
| 15           | Banco del Estado: Loan Approvals  |
| 16           | Private Commercial and Specialized Banks: Number of Bank Offices  |
| 17           | Commercial Banking System:<br>Table 1: Sources of Finance for the Private Sector<br>Table 2: Distribution of Deposits |
| 18           | Private Commercial and Specialized Banks: Total Deposits and Portfolio of Loans from Own Sources                      |
| 19           | Private Commercial Banks<br>Table 1: Portfolio Growth 1972 - 1976<br>Table 2: Portfolio Distribution by Sectors 1976  |
| 20           | Banco Industrial S.A. (BISA): Loan Approvals  |
| 21           | Banco Industrial S.A. (BISA): Projected Loan Operations   |

INTRODUCTION

This report was prepared by a UNIDO mission (World Bank/UNIDO Co-operative Programme), which visited Bolivia during the period 7 November to 4 December 1977.

The mission was composed of Messrs. H. Molina (industrial engineer and mission leader), L. Thomson (financial analyst) and J. Paschke (industrial economist). Mr. J. Hiraki of IBRD accompanied the mission during the first two weeks in the field, helped plan mission strategy, and provided advice on sources of information. A Bolivian consulting firm was hired to administer a questionnaire to a selected sample of small industrial enterprises in La Paz and to arrange contacts and interviews with representatives of public and private institutions. Mission members administered the questionnaire directly in 6 other major cities.

The Ministries of Planning and Coordination, and of Industry, Commerce and Tourism acted as Bolivian counterparts. Logistic support was provided by the Banco Industrial S.A. and the Departmental Development Corporations. The National Chamber of Industries and the Departmental Chambers of Industry were most effective in helping to select and contact companies that were visited by mission members.

Special acknowledgement is given to Messrs. A. Valdez, Under-secretary of Planning and Coordination, and Mr. R. Arrivillaga, IBRD's Resident Representative in Bolivia, for their help in clearing the mission with the Government and in making preliminary preparations. Thanks are also extended to all other Government officials, representatives of financial institutions and managers of enterprises visited for the high level of cooperation received.



## 1. SUMMARY

For the purposes of the mission and in agreement with Government authorities and private sector representatives, small-scale industries (SSI) were defined as enterprises having fixed assets between US\$ 2,500 equivalent and US\$ 100,000 equivalent, excluding land and buildings, and between 5 and 25 employees. For purposes of definition, the mission recommends to increase the number of employees to 50 and to up-date the limit for fixed investment periodically by means of relevant indexing.

Bolivian industry is in an early stage of development. This fact is reflected by its share of around 12 percent in GDP and less than 7 percent of the country's total labour force during the past 5 years. However, SSI are an important and dynamic segment of the whole industrial sector, contributing about 35 percent of industrial value added, 32 percent of industrial employment, and 16 percent of gross investment in industry. The main SSI activities are the manufacturing of consumer goods, such as food, beverages, wearing apparel, and wood and leather products.

Almost the entire production of SSI is destined to small markets in the vicinity of the production facilities. Due to the land-locked position of the country, poorly developed surface transport facilities and high production costs, exports of SSI products are limited mainly to handicrafts.

A sample of 97 companies was visited; however, 18 were found not to comply with the established parameters for SSI. In general, SSI in Bolivia have a one-man or one-family ownership with all managerial, administrative and production responsibilities under one person. As a consequence, and to avoid the introduction of middle management, companies have to date deliberately remained small, a fact reflected in the average age of 18 years for the companies included in the sample.

The manager-owner is typically well-versed in the simple production techniques used in Bolivia, but lacks formal training and needs technical assistance in the fields of financial, operational and industrial management.

In general, workers are trained by the companies by which they are employed and are considered skilled when they have more than 5 years of on-the-job experience. They demonstrate the ability to learn quickly but show a disinclination to work according to a regular schedule. Labor rates are among the lowest in Latin America, and the legislation pertaining thereto is confusing and out-dated.

Due to a chronic shortage of working capital, SSI usually buy raw materials and supplies on a daily or weekly basis from importing firms, thereby involuntarily renouncing the tax exemptions for which they would often be eligible if they imported directly.

Capacity utilization of plant and equipment is 40 percent on the average due to the limited market, shortage of working capital, production bottle-necks, mechanical break-downs, low productivity of labour, and low quality of products. Transport problems of both raw materials and finished products also contribute to low output. Many of the smaller companies operate in rented premises or in a part of the owner's household; consequently, plant lay-out, material flow, and comfort and safety for workers are matters that show neglect. Production equipment and machinery are usually old and/or second-hand and lacking in repair and maintenance.

Accessibility to industrial credit is restricted to SSI that are able to cope with the relatively short maturities and difficult collateral requirements imposed by both public and private banks. Banks are reluctant to work with SSI because of the risks perceived, because of the costly processing of often incomplete and ill-prepared credit applications, and because of the unattractive interest spreads on existing lines of credit. The mission recommends the establishment of a special credit line for SSI in the magnitude of US\$ 30 million for fixed investment and permanent working capital. Among several existing alternatives, the Bolivian institution best equipped to administer this credit line is believed by the mission to be the Banco del Estado (BANESTA). In addition, support is recommended for the proposed Central Bank/USAID guarantee fund so that its benefits may be extended to SSI in urban areas. Such support could involve the pledging of up to US\$ 3.75 million, thereby doubling the capacity of the fund that has already been proposed. The mission recommends a programme of special assistance to SSI in the preparation of credit and incentive applications and nominates the Bolivian Institute for Small-Scale Industry and Artisanry (IRBOPIA) as the most appropriate institution to provide this type of assistance.

A need for technical assistance in basic business matters including financial management and commercialization was observed by the mission as an

adjust to the providing of new credit facilities. Assistance in the preparation of bankable projects is also generally needed by SSI, and the Bolivian institution recommended to administer these services is once again INBOPIA. However, this institution would need to be reorganized and strengthened for such an important task. A fund for technical assistance to the extent required would call for a minimum contribution of US\$ 500,000 (equivalent to 10 man/years).

The mission also recommends that independent management centers be established with the initial help of the Government. These centers should offer training in basic operational, administrative and industrial management.

The Government has no policy for SSI, a fact reflected at all institutional levels, where a preference for large industrial enterprises is apparent. Existing institutions dealing with SSI are not properly oriented and lack sufficient resources and staff to have a meaningful impact.

Given the fact that a healthy and modern SSI sector is necessary for further industrial development in Bolivia, the mission recommends giving special attention to SSI in the country's development plans. It also recommends modifying existing legislation or enacting a special incentives law, possibly of a temporary nature, for all existing and new SSI.

## CHARACTERISTICS OF SMALL-SCALE INDUSTRIES IN BOLIVIA

### 1. DEFINITION OF SSI

The official definition used by the Ministry of Industry (both INEOPIA and the Directorate of Industries) restricts SSI to enterprises having fixed assets ranging from US\$ 2,000 to US\$ 50,000 equivalent. For the National Chamber of Industry, SSI fall within their Third Category Membership, which is defined as having paid-in capital between US\$ 2,500 and US\$ 30,000 equivalent. One must recognize that these figures have not been updated since 1974, and that they do not reflect today's values of money and assets. Therefore, the Ministry of Planning and Coordination, together with private and public sector institutions dealing with SSI, as well as the mission members, agreed in the course of a meeting at the beginning of the mission to raise the upper limit on fixed investment to US\$ 100,000. This definition excludes land and buildings, because these assets are often not owned by SSI. Moreover, employment (workers and full-time administrators) was taken as a second parameter for SSI; the limit was tentatively set between 5 and 25 persons, excluding the owners themselves.

As a result of the above, artisans were defined as enterprises having an investment in equipment of less than US\$ 2,000 equivalent and less than five employees. They were excluded from the survey.

The pre-selection of qualifying SSI to be visited and interviewed by the mission was difficult due to inefficient statistical data on investment and employment. Out of 97 enterprises that were visited and evaluated on the basis of real value of equipment and actual employment, only 79, or about 80 percent, complied with the criteria regarding value of fixed investment. The employment limitation of 25 persons was met by only 55 enterprises, or 57 percent of the sample. However, because of labour-intensive production methods and owner-management characteristics, 25 companies with more than 25 employees were finally included in the survey.

On the basis of the mission's experience, it is recommended that the SSI limits on investment value be updated periodically in accordance with suitable indexing. Additionally, an increase in the upper limit of employment for SSI to 50 persons is recommended. Without such an increase, a large number of firms having the general characteristics of SSI would be automatically excluded.

## 2.2. THE INDUSTRIAL SECTOR IN THE BOLIVIAN ECONOMY

Statistical information, which are available and which continue to be used in World Bank reports and Government projections for the current Five-Year Plan (1976-1980), should be accepted with reservation. Many of these data, although consistent within themselves, are in the process of being revised by a number of agencies: by the Central Bank for economic data such as gross production value and value added; by the Central Statistical Office for population <sup>1/</sup>, labour force and urban employment; and by the Ministry of Labour for distribution of employment in manufacturing industries in urban areas.

Within official statistics, data on SSI are usually combined with data on artisanry production. Moreover, most of these data are taken from official questionnaires which, for the obvious reason of minimizing tax liability, tend to understate capacity, investment, production value and value added. The mission has therefore prepared a new set of data on SSI based on revised official economic data, as yet unpublished, and on the mission's findings in the course of interviews with 79 Bolivian small-scale enterprises.

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<sup>1/</sup> The 1976 Census established that Bolivia has a population of 4.6 million as opposed to the 5.6 million that had been estimated on the basis of the 1972 Census.

Bolivia is at an early stage of industrial development. In 1976, manufacturing industry employed less than 7 percent of Bolivia's total labour force of about 1.5 million. Conditions prevailing in 1976 can be summarized as follows:

TABLE N<sup>o</sup> 1

BOLIVIA: Selected Economic Indicators for 1976

| <u>Economic Sectors</u>              | <u>Value Added</u> |                | <u>Gross Production Value</u> |                | <u>Employment</u>   |
|--------------------------------------|--------------------|----------------|-------------------------------|----------------|---------------------|
|                                      | <u>\$b million</u> | <u>Percent</u> | <u>\$b million</u>            | <u>Percent</u> | <u>'000 persons</u> |
| Agriculture                          | 10,006             | 17.0           |                               |                | 740                 |
| Commerce, Hotels,<br>Restaurants     | 11,371             | 19.3           |                               |                | 79                  |
| Mining                               | 4,887              | 8.3            |                               |                | 46                  |
| Energy, Transport,<br>Communications | 5,232              | 8.9            |                               |                | 46                  |
| Manufacturing                        | <u>7,370</u>       | <u>12.5</u>    | <u>16,785</u>                 | <u>100.0</u>   | <u>103</u>          |
| Food/Beverages                       | 2,623              | 4.4            | 7,031                         | 41.9           |                     |
| Textile/Leather                      | 1,677              | 2.8            | 3,641                         | 21.7           |                     |
| Chemicals                            | 1,722              | 2.9            | 2,532                         | 15.1           |                     |
| Other Sub-sectors                    | 1,348              | 2.4            | 3,581                         | 21.3           |                     |
| Other Sectors                        | <u>20,083</u>      | <u>34.0</u>    |                               |                | <u>186</u>          |
| <b>Total</b>                         | <u>58,949</u>      | <u>100.0</u>   |                               |                | <u>1,200</u>        |

Source: Unpublished statistical data of the Central Bank, 1976 census on population, 1977 sample census on urban employment and households.

Annexes 1 and 2 show the most recent data on population and urban and rural labour force, respectively. Annex 3 gives details on GNP and overall economic growth since 1970. According to these data, Bolivia's population totalled about 4.65 million in 1976, growing at an annual rate of about 2.5 percent. The Bolivian economy grew at an average rate of 6 percent per year during 1970-1976; the manufacturing sector grew slightly faster at an average rate of 7.2 percent per year. These results were achieved during a period of political stability, of increased world market prices for Bolivia's main exports (minerals and non-ferrous metals) and of favourable weather conditions for agricultural products.

At the end of 1977, a degree of uncertainty was introduced with the announcement of general elections scheduled for mid-1978. This could possibly reduce prospects for economic growth, at least during 1978. However on-going efforts to increase world market prices for hydrocarbons, coupled with an increase in domestic production of hydrocarbons as well as of agricultural and industrial goods, are expected to counterbalance any negative effects arising from political uncertainty. The Bolivian economy may therefore, continue to grow at a steady rate of about 6 percent per annum as during the previous five-year period.

Annex 4 and the summary table on the previous page clearly indicate that consumer goods continue to be the main products of Bolivian manufacturing industries. Food products and beverages account for about 42 percent of industrial output, and textiles and leather products for about 22 percent. The chemical industry, as the third largest sub-sector, accounts for about 15 percent of industrial output.

The most recent investigations into employment in urban areas, where most of industrial labour is recruited, is shown in Annex 5. These figures indicate that about 236,000 persons, or 31 percent of the total urban labour force, are presently under-employed, i.e. are subject to irregular working hours and fluctuating, generally low income. The unemployed constitute about 60,000 persons, or 8 percent of the labour force. These figures also show the important role that manufacturing industry, and especially SSI, will have to play to absorb around 300,000 persons who are at present either underemployed or unemployed in urban areas.

Information on the total number and size of Bolivian industrial enterprises is incomplete and contradictory. The National Registry of Industries maintained by NICI is incomplete. Despite the fact that registration is obligatory, an estimated 30 percent of all enterprises, especially the smaller ones, have failed to comply. Membership in the National Chamber of Industries covers small, medium and large industrial enterprises and excludes artisans, which they define as enterprises with less than US \$2,500 equivalent of paid-in capital. In 1976, total membership was 920 enterprises which the Chamber estimates to represent about 50 percent of all existing industrial enterprises, excluding artisans. These estimates are close to the mission's findings, which have been derived from employment data.

Official data on industrial employment are equally incomplete and contradictory (see Annex 6). Starting with total industrial employment (103,000 persons in 1976) and applying average employment figures for artisanry and small-scale enterprise (3.3 for artisanry and 21 for SSI), the mission arrived at the following break-down:

TABLE N° 2

BOLIVIA: Number of Industrial Enterprises and Employees

| <u>Size of Enterprise</u> | <u>Number of Enterprises</u> | <u>Number of Employees</u> |
|---------------------------|------------------------------|----------------------------|
| Large and Medium          | 350                          | 20,000                     |
| Small-Scale               | 1,600                        | 33,000                     |
| Artisanry                 | 15,000                       | 50,000                     |
| <b>Total</b>              | <b>16,950</b>                | <b>103,000</b>             |

Source: Mission estimates

2.3.

THE IMPORTANCE OF SSI IN THE BOLIVIAN ECONOMY

The mission attempted to determine the degree of SSI participation in Bolivia's economy by estimating its share in certain major economic parameters.

The share of SSI in gross domestic product (GDP) was around 4.4 percent in 1976. During the same year, the SSI share in total value added of manufacturing industry was in the order of 35 percent. This figure is relatively close to an estimate made by INBOPIA in 1972. The available data are summarized in the following tables:

TABLE N° 3

BOLIVIA: Share of SSI in GDP

|                                       | US\$ Million |         |
|---------------------------------------|--------------|---------|
|                                       | 1970         | 1976    |
| Gross Domestic Product                | 2,079.3      | 2,947.5 |
| Value Added by Manufacturing Industry | 248.3        | 368.5   |
| Value Added by SSI                    | n.a.         | 129.3*  |

|  | Percent |      |
|--|---------|------|
|  | 1970    | 1976 |
| Value Added by Manufacturing Industry/GDP                | 11.9    | 12.5 |
| Value Added by SSI/GDP                                   | n.a.    | 4.4  |
| Value Added by SSI/Value Added by Manufacturing Industry | n.a.    | 35.1 |

\* This figure is calculated by multiplying the average annual sales per small-scale enterprise (US\$ 188,000 equivalent) by the total estimated number of small-scale enterprises (1,600), in turn multiplied by 43 percent value added. The 43 percent figure was derived from data collected from companies interviewed by the mission.

Source: National Accounts and mission estimates

The official figures in respect to Bolivia's labour force and industrial employment required adjustment on the basis of the results of the 1976 National Census on Population. In 1976, Bolivia's labour force totalled about 1.5 million, of which about 50 percent were located in urban areas. Employment in manufacturing industries was about 7 percent of total labour force, and employment in SSI almost one third of employment in manufacturing and about 2 percent of the total labour force. This is summarized in the following table:

TABLE N° 4

BOLIVIA: Share of SSI in Total Labour Force and in Labour Force in Manufacturing Sector

|                             | Thousands of Persons |         |
|-----------------------------|----------------------|---------|
|                             | 1970                 | 1976    |
| Total Labour Force          | 1,264.4              | 1,510.5 |
| Employment in Manufacturing | 88.8                 | 103.0   |
| Employment in SSI           | 25.0                 | 33.0    |

|  | Percent |      |
|--|---------|------|
|  | 1970    | 1976 |
| Employment in Manufacturing/Total Labour Force | 7.0     | 6.8  |
| Employment in SSI/Total Labour Force           | 2.0     | 2.2  |
| Employment in SSI/Employment in Manufacturing  | 28.2    | 32.0 |

Source: Five-Year Economic and Social Development Plan (1976-1980)



In 1976, the incremental investment in manufacturing industry, both public and private, amounted to US\$ 121.5 million equivalent, of which the mission estimates an increment of US\$ 19.3 million equivalent, or around 16 percent, in small-scale industry. The 1972 figure on incremental industrial investment is only about 25 percent of the 1976 value, while the share of SSI in the total is more than 36 percent or twice that of 1976. These figures indicate a relative increase in investment in medium and large-scale manufacturing industry during the period 1972-1976. Data are summarized in the following table:

TABLE N° 5

BOLIVIA: Investment in Manufacturing Industry

|  | <u>US\$ million</u> |             | <u>Percent</u> |             |
|--|---------------------|-------------|----------------|-------------|
|  | <u>1972</u>         | <u>1976</u> | <u>1972</u>    | <u>1976</u> |
| Total Incremental Investment in Manufacturing Industry | 30.0                | 121.5       | 100.0          | 100.0       |
| Investment in SSI                                      | 11.0                | 19.3        | 36.7           | 15.9        |

Source: Five-Year Plan for Economic and Social Development, Operational Plan 1977 and Volume 2, and mission estimates.

There is a paucity of data available on small-scale industry, and therefore the mission has estimated investment in SSI by the following method:

The average value of assets per small-scale enterprise in the sample was found to be about US\$ 141,000 equivalent. When multiplied by the total number of companies (1,600), total assets of SSI should be valued at about US\$ 225 million equivalent. Future expansion, estimated at a conservative 7 percent per annum, would result in an annual investment of US\$15.8 million equivalent. Added to this is the annual investment for replacement of existing assets. The sample survey showed that the investment in machinery and equipment is equal to about 30 percent of total assets for SSI. It was also found by the mission that machinery is used for a relatively long period of time, and an average lifespan of 20 years has been assumed. Using these assumptions, the annual amount required for replacement of equipment should be in the order of US\$ 3.4 million equivalent. Therefore, annual investment in SSI, for both new and replacement assets, is estimated to be around US\$ 20 million equivalent.

It is worthwhile noting the share of various sub-sectors of SSI in total employment, in the number of registered enterprises, in the value of gross production, and in value added. To do this we have assumed that those companies which are registered with INDOPIA are representative of SSI in Bolivia. The sectors of major importance are food, textiles, and wood. Chemical products are also important in terms of gross production value and value added. Details are given in the following summary table:

TABLE No. 6

BOLIVIA: Statistical Data on Sub-sectors of SSI, 1976

|                                | Employment   | No. of Registered Enterprises | Gross Prod. Value | Value Added  |
|--------------------------------|--------------|-------------------------------|-------------------|--------------|
|                                | %            | %                             | %                 | %            |
| Food/Beverages                 | 22.5         | 20.2                          | 38.0              | 19.9         |
| Textiles and Leather           | 15.6         | 21.6                          | 17.7              | 17.4         |
| Wood and Furniture             | 28.8         | 23.5                          | 15.0              | 25.4         |
| Paper and Printing             | 6.0          | 7.8                           | 4.1               | 8.3          |
| Chemical Products              | 5.6          | 4.1                           | 13.7              | 11.0         |
| Mineral Products               | 5.4          | 6.1                           | 3.0               | 5.7          |
| Non-Ferrous and Ferrous Metals | 6.8          | 5.8                           | 2.8               | 6.4          |
| Engineering                    | 4.4          | 5.8                           | 3.4               | 3.8          |
| Others                         | 4.9          | 5.1                           | 2.3               | 2.1          |
| <b>Total</b>                   | <b>100.0</b> | <b>100.0</b>                  | <b>100.0</b>      | <b>100.0</b> |

Source: INDOPIA, unpublished draft on SSI and Artisan Workshops

#### 2.4. REGIONAL DISTRIBUTION OF BOLIVIAN SSI

Generally, industry is concentrated in and around urban centers, where infrastructure is more developed in terms of communications, power, water, sewerage, banking, community services, etc. Proximity to the main markets and to labour are also determining factors for the concentration of industry in and around cities and larger villages.

The greatest concentration of SSI at the center of a city was found in La Paz, whereas in the case of Cochabamba and Santa Cruz dispersion of industries to the peripheral areas is beginning to occur. Relatively speaking, there is less industry in Oruro, Sucre, Tarija and Potosi, while in other towns, villages and in rural areas SSI is virtually non-existent. In rural areas, mainly large agro-industries, such as sugar mills or vegetable oil extraction plants, are to be found.

The following table shows the distribution of employment by Department for the sample SSI firms interviewed:

TABLE N° 7

BOLIVIA: Employment by Department for Sample SSI

| <u>Departments</u> | <u>SSI Employment</u><br><u>1975</u> | <u>Firms Visited</u><br><u>by Mission</u> |
|--------------------|--------------------------------------|---|
| La Paz             | 61.6                                 | 48.0                                      |
| Cochabamba         | 17.5                                 | 21.0                                      |
| Santa Cruz         | 11.4                                 | 11.0                                      |
| Oruro              | 5.3                                  | 6.0                                       |
| Chuquisaca         | 2.5                                  | 5.0                                       |
| Tarija             | 0.8                                  | 6.0                                       |
| Potosi             | 0.6                                  | 5.0                                       |
| Beni               | 0.3                                  | -   |
| Pando              | -                                    | -   |
| <b>TOTAL</b>       | <b>100.0</b>                         | <b>100.0</b>                              |

Source: Ministry of Labour, "Labour Statistics", and mission visits to selected SSI.

2.5.

SURVEY METHODS

As described in the mission's terms of reference, a sample of 79 enterprises, falling within the agreed definition of SSI and representing the most important small-scale industrial activities (food processing, textiles and wearing apparel, leather and leather products, wood and wood products and building materials) were selected. Mission members, accompanied by Bolivian counterparts, visited companies in La Paz, Santa Cruz, Cochabamba, Oruro, Potosi, Tarija and Sucre, as indicated in Table 1 of Statistical Annex 7, which also contains information on age, size, type of employment, industrial activities, volume of sales, and technical evaluation of the sample firms.

2.5.1.

GENERAL CHARACTERISTICS

The average age of the 79 companies was found to be 18 years. The average number of workers was 21. Other characteristics and comparable data from Peru, as an example of another Latin American country in the course of industrial development, are indicated in the following table:

TABLE N° 8

BOLIVIA: A Comparison of Characteristics of SSI in Bolivia and Peru

|   | <u>BOLIVIA (1976)</u> | <u>PERU (1975)</u> |
|---|-----------------------|--------------------|
| Fixed assets per worker (US\$)  | 2,100                 | 4,600              |
| Gross output per worker (US\$)  | 8,950                 | 13,700             |
| Value added per worker (US\$)   | 3,100                 | 6,400              |
| Value added by SSI as a percentage of value added by manufacturing industry (%) | 35.1                  | 46.7               |

Source: Mission interviews with Bolivian SSI; IBRD Small-Scale Industry Survey Mission to Peru (December 1977)

The above data show clearly the more advanced stage of Peruvian SSI as compared with Bolivian SSI in terms of productivity and value added<sup>1/</sup>.

In 95 percent of the cases, the Bolivian companies interviewed were found to be owned and managed by individuals or families, and the others, usually the largest companies in the sample, have no more than 5 partners. Products manufactured are mostly consumer goods, of medium and low quality, sometimes of artisan type. Generally speaking, equipment is old, sometimes second-hand, and often poorly maintained. The owner is in most cases the only source of technical training for employees. Capacity utilization is on the average 40 percent, the main reasons being the limited demand for products and the shortage of working capital.

#### MARKETING

Due to the disadvantages of being a land-locked country, with rugged topography and inadequate infrastructure, the markets for Bolivian industry are necessarily limited to the urban centers where the production units are located. Existing surface transportation systems are inefficient, unreliable and costly. Contraband and production from non-registered and thus non-tax paying enterprises (especially artisans), make it hard for registered SSI to compete. A number of smaller companies operate on the basis of special orders only and not for stock, thus increasing the cost of production; in this case the financing of raw materials is made easier by the fact that the down-payment required can be used for this purpose. Those who produce for stock frequently face the problem of insufficient working capital, even though sales are made on a cash-basis. In exceptional cases, interest-free credit up to 60 days is granted to customers. Commercial letters of credit are generally not used because of the difficulties experienced in rediscounting them.

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<sup>1/</sup> In Peru, SSI are defined as private enterprises with annual sales of up to US\$ 360,000 equivalent and a maximum of 49 employees (see IIRD Small-Scale Industry Survey Mission to Peru, report dated December 1977).

Sub-contracting arrangements between large companies and SSI are utilized in other countries as a means to promote industrial development, and especially the development of SSI. In Bolivia, however, sub-contracting is not yet practised even by large Government-owned enterprises such as Corporación Minera de Bolivia (COMIBOL), Yacimientos Petrolíferos Fiscales Bolivianos (YPFB) and Empresa Nacional de Ferrocarriles del Estado (ENFE). On the contrary, these entities still accept merchandise from SSI on a commission basis and pay on an irregular schedule, sometimes up to 6 months after consignment.

Exports of SSI are limited to handicrafts, some food and leather products and wearing apparel. The enterprises visited exported less than 3 percent of their combined sales in 1976 (see Table 8 of Statistical Annex 7).

Enterprises with high quality products do not face marketing problems. Their limitations to increased sales are related to the lack of resources for financing additional equipment and permanent working capital.

### 2.5.3. PROCUREMENT

The same inefficient transportation systems that impede delivery of products to more distant markets make raw material supply difficult and expensive. SSI located in La Paz, Cochabamba and Santa Cruz can purchase raw materials from local importing firms, while those in smaller towns such as Potosi and Sucre are often penalized by being obliged to transport their raw materials from far-away importing centers.

As a result of limited working capital, some small entrepreneurs are unable to import raw materials directly from abroad in the relatively large quantities that represent minimum orders. Instead they are obliged to purchase on a daily or weekly basis from importing firms, and in so doing, they are unable to take advantage of customs duties exemptions, even when eligible under existing regulations. Additionally, SSI must usually meet cash-payment conditions, although they sometimes enjoy short-term credits of up to 60 days at an interest rate of 1 to 3 percent per month. The general rule is to buy raw materials and other inputs for cash and sell finished products for cash.

Industries processing local agricultural raw materials complain of high prices, low quality and limited quantities, due in part to the early stage of development of modern agricultural and animal husbandry methods. In addition, illegal exports of raw materials of the best quality (e.g. hides to Argentina) reduce their availability at reasonable prices for Bolivian industry. Another factor depriving small industrialists from using high quality raw materials is the lack of storage and seasoning facilities (e.g. ? grains and timber).

As might be expected, industries producing traditional consumer goods, such as food and cotton textiles and wearing apparel, are less dependent on imported raw materials than are enterprises producing non-traditional more sophisticated products, such as chemicals, metal and electronic products. Table No. 9 indicates the origin of raw materials used by the main industrial branches of Bolivian SSI.

TABLE N° 9

BOLIVIA: Local and Imported Raw Material  
by Branch of SSI, 1975

| <u>SSI Branch</u>  | <u>Local Raw Material</u><br><u>Percent</u> | <u>Imported Raw Material</u><br><u>Percent</u> |
|--|---|--|
| Food, Beverages, Wood +<br>Wood Products, Furniture,<br>Non-Metallic Minerals                                    | 80 - 100                                    | 0 - 20   |
| Clothing, Leather and<br>Leather Products, Non-<br>Ferrous Metals  | 50 - 80                                     | 20 - 50  |
| Shoes, Chemical Products   | 20 - 50                                     | 50 - 80  |
| Printing and Publishing,<br>Chemicals, Glass Products,<br>Metal Products, Mechanical<br>and Electrical Equipment | 0 - 20                                      | 80 - 100                                       |

Source: INBOPIA, unpublished report on SSI and artisan type production in Bolivia.

As is the case in many developing countries, a characteristic of SSI in Bolivia is one-man or one-family management. Even in the case of a family-owned enterprise, the tendency is for the strongest personality (generally the oldest man) to assume all functions and responsibilities inherent to the operation, from the acquisition of raw materials and the hiring of personnel to the sale of finished products and the keeping of elementary financial and production records. Sometimes the same person is also involved in actual production, in operating machines and tools and even in carrying materials.

A result of this situation is resistance to growth, because beyond certain limits it is not possible for one person to control all things. Instead of introducing middle management and thus evolving into medium-scale industry, enterprises are deliberately kept small or within what is considered to be a "manageable size", indefinitely. Therefore, and taking into consideration the limited market and the relatively low capacity utilization, it is not surprising that 51 percent of the companies visited by the mission were found to be more than 10 years old, 31 percent to have existed for more than 20 years, and the average age to be 18 years.

The concentration of authority at the administrative level is shown by the fact that, within the sample, the average number of persons with administrative capacity is 1.5 per enterprise, whereas the average number of workers engaged in production is 19.5 per enterprise. These results do not consider the use of part-time accountants and other part-time help, which is generally found to be the practice.

Normally, the manager-owner is a person with many years of experience in production (a competent carpenter, shoe-maker, tailor, etc.), well-versed in the simple production techniques that are characteristic of SSI in Bolivia. On the other hand, he usually lacks formal management training, and his practical experience is often affected by misconceptions. He usually does not know the basic elements of accounting, production planning and control, and marketing. Financial statements are generally prepared by outsiders for the benefit of Government authorities and rarely reflect reality.



Unfortunately, financial data are usually not used as tools to measure performance and to signal trouble spots, but rather to minimize tax obligations.

The organization of the production process was generally found to be inefficient, with resulting waste and accumulation of materials in process along the production lines. Low product quality and high production costs are the result of the poor management observed.

As a general rule, no efforts are made to open new markets in neighbouring towns, regions or countries, partly due to a non-aggressive management attitude.

The generally low level of managerial capability within SSI could be partially raised by Government-sponsored extension services, which at present do not exist in Bolivia. The most urgent needs fall within the following categories:

Financial Management, including general, cost and cash accounting.

Industrial Management, including product design, quality control, materials utilization, materials flow, production techniques, industrial safety, and plant maintenance and repair.

Operational Management, including procurement of raw materials, marketing of finished products and market research. Project preparation, compliance with Government requirements, and knowledge of business legislation should also be included in this category.

This type of technical assistance needs to be organized by the Bolivian Government through a public institution, with help from international organizations. Since many Bolivian SSI are already accustomed to paying for accounting services, it is conceivable that a nominal fee might be charged to the beneficiaries. However, even if assistance is given on a free-basis, the costs to the Government would be compensated by increased employment, increased income tax revenues, and a healthier SSI sector.

Another important contribution would be the organization of "Management Centers", where seminars on the most important management, administrative and production techniques, at the appropriate levels and using competent instructors from Bolivia and abroad, might take place periodically to complement the practical experience of Bolivia's small-scale businessmen. At present, there is no public or private institution

engaged in these activities. It is also a field where international assistance might play an important role.

In general there is a lack of confidence on the part of small-scale entrepreneurs in Government authorities, who give the impression that they are mainly interested in increasing tax-revenues and not in providing assistance to the business community. This is a situation that will take some time to change, requiring a real effort on the part of public institutions to show that they can be useful as channels of financial and technical assistance. It is an obvious recommendation that public institutions should try to improve their image by becoming more efficient.

2.5.5.

LABOUR, SKILLS AND WAGES

The sample results show that 29 percent of the workers are skilled, 39 percent semi-skilled, and 25 percent non-skilled. As a matter of definition, a skilled worker is a person with more than 5 years of on-the-job experience, usually as a machine operator, and with the ability to perform his work with a minimum of supervision. In 99 percent of the cases, he has been trained in the same enterprise in which he is now working, and where he was initially recruited as an apprentice. Usually he has no formal training.

It appears that most Bolivian workers have the ability to learn their trades quickly. However, as in other Latin American countries, their sense of responsibility is questionable, and they are often unwilling to accept regular working hours. Therefore, when a Bolivian entrepreneur speaks of lack of "qualified personnel" he is often referring to a lack of responsibility on the part of his personnel. Industrialists report that absenteeism is high among workers and is one of the reasons for low capacity utilization. They also cite carelessness, indifference to the company's welfare, and continuous demands for increased compensation and fringe benefits as other negative attitudes.

On the other hand, some of the smaller companies and artisan shops are known to pay wages well below the legal minimum, to avoid paying bonuses, and to retain social security contributions. Under such conditions, it is hard to find workers with a sense of responsibility and even harder to justify high profits when they are obtained by the above methods.

There is disarray in the existing labour legislation. Minimum wages are seldom revised, and the preferred method to increase compensation is to add another bonus to the extent that wages themselves are only a small part of total compensation. The system has many loopholes and leads to confusion and misinterpretation. Despite the inconsistencies found in the information obtained directly from the companies' managers, the most frequent ranges for monthly labour compensation, including fringe benefits, are shown in the following table:

TABLE N° 10

BOLIVIA: Monthly Labour Compensation in Small-Scale Industries

|                      | <u>Bolivian<br/>Pesos</u> | <u>U.S. Dollars<br/>equivalent</u> |
|----------------------|---------------------------|------------------------------------|
| Skilled workers      | 3,500 to 4,500            | 175 to 225                         |
| Semi-skilled workers | 2,500 to 3,500            | 125 to 175                         |
| Non-skilled workers  | 1,000 to 2,500            | 50 to 125                          |

Source: Mission survey results .

Examples of fringe benefits (which are not always provided) are "Christmas bonus", "half year bonus", "prima legal" (25 percent of company's profits before taxes), social security contributions, and commissary services for companies with more than 20 workers. These benefits range from 20 to 68 percent of base pay. The degree to which observed varies by location and even from company to company.

Aware of the need to up-date and consolidate existing legislation, the Bolivian Government is studying a new Labour Code (November 1977) that will, hopefully, eliminate problems of comprehension and inconsistency of application. Consistent and clear information is necessary for both existing industries and new ventures.

5.6. TECHNICAL ASPECTS

Only 42 percent of the companies visited showed a satisfactory level of capacity utilization (more than 60 percent of installed capacity), while the average is 40 percent. The most frequent reasons for low capacity utilization are <sup>(1)</sup> insufficient demand for products, and <sup>(2)</sup> shortage of working capital. From the technical point of view, production bottle-necks, equipment break-downs, low productivity and unreliability of labour are the main factors responsible for this situation. Transport problems and inadequate quantity and quality of raw materials are other constraints. No correlation was found between age of companies and capacity utilization (see Tables 2 and 10 of Statistical Annex 7).

Despite the rather simple production processes and technology used by SSI in Bolivia, about one third of those included in the sample were found to need technical assistance to improve their production techniques. Most of them appear to need help to improve product design and quality.

The majority of SSI operate in rented premises or within the owner's home. Despite adaptations, neither location is likely to provide a proper layout, with easy access, smooth flow of materials, and comfort and safety for the workers. For some, the problem could be solved by moving to industrial estates, the construction of which should be further encouraged, or to their own premises with the proper financial assistance. For others that must remain in the center of urban areas, for proximity to markets and other reasons, Government intervention may be the only solution, particularly as concerns the safety and welfare of workers.

Wastage of raw materials is due mostly to reluctance to use proper measuring and carrying devices and to deficiencies in the training of workers. Little attention is paid to wastage of electricity, water, and fuel.

Machinery and equipment are in general old, in conformity with the age of companies. In some cases, it was found that second-hand equipment from Brazil and Argentina had been imported for initiating operations. Lack of maintenance and repair contribute to the negative aspects observed, especially in the case of smaller companies. Difficulties in obtaining long-term credit for replacement and modernization are among the primary reasons for the frequent use of worn-out equipment.

2.5.7

FINANCIAL ASPECTS

2.5.7.1.

RELIABILITY OF DATA

In studying the financial circumstances of SSI in Bolivia, it must be kept in mind that statistical data based on tax returns are to a large degree inaccurate. It is a common practice, for small firms in particular, to report only a small portion of total sales revenue, with the result that only a fraction of a potential tax liability is actually paid. This leads to distortion of asset values, as well as to a fabrication of cost and profit figures. Tax returns are usually prepared by professional accountants employed on a part-time basis. From the point of view of the entrepreneur, the high cost of this special service is more than justified by the tax savings. It is also apparent that statistics on profitability of SSI would be significantly altered if reporting of income were more strictly monitored by the Government. The official corporate income tax rate is 30 percent except when, as an investment incentive awarded by INI, the rate is reduced to 25 percent.

In view of the practice described above, the mission endeavored in the course of interviews with SSI to ascertain real values in preference to those reflected in official accounting records. These efforts often, but not always, met with success. This meant being content with oral approximations, as written records reflecting real income and expense were rarely in evidence. Nevertheless, the mission feels more confident in the figures obtained in the course of the interviews than in any official written records of the Government or of the companies.

2.5.7.2.

PROFITABILITY

In spite of inefficiencies, limited market potential, and inaccessibility of bank credit, SSI in Bolivia was found to be generally profitable.

As explained in Section 2.5.7.1., one reason for this profitability is the low effective rate of taxation. Another reason is the existence of a large and cheap labour force not always subject to minimum wage and benefit regulations.

When profit is measured against the investment committed to obtaining this profit, we found that half of the companies interviewed reported gross earnings in excess of 20 percent of total assets. Seventy-three percent reported more than a 5 percent return on total assets. Only 4 out of 79 companies were in a loss position, and that was believed to be a temporary situation. Profits remaining after taxes and after compensation to creditors in the form of interest were in excess of 10 percent of total assets for 45 percent of the sample.

The earning power of the ownership investment was found to be correspondingly high. Thirty-eight percent of the firms interviewed reported a greater than 30 percent return on net worth, and 55 percent indicated a greater than 10 percent return.

Profit margins are normally high. Earnings before interest and taxes were found to be greater than 20 percent of sales in almost half of the cases examined. For the same number of cases, net profit exceeded 10 percent of sales, and this would probably have been higher if all respondents had been candid about giving their real sales and profit figures. An analysis of ratios regarding profitability is at Annex 8.

The profitability described above must be considered also in light of the relatively low inflationary trend in the economy, which has varied between 5 and 10 percent per year over the past 3 years.

3. LIQUIDITY AND INDEBTEDNESS

The mission found a general pattern of strength among SSI in terms of ability to meet current obligations. Data on current assets and current liabilities were obtained only in La Paz, Cochabamba and Santa Cruz, and in these areas 65 percent of the companies interviewed reported current assets greater than twice the amount of current liabilities. This reflects the tendency to carry large inventories in response to supply problems, the inability to obtain raw materials on a credit basis, and the disinclination to incur short-term debt because of its relatively high cost as well as tedious application procedures.

The assumption that small firms in Bolivia operate for the most part with their own funds and rarely with borrowed money was verified during the survey. In only 24 percent of the cases were more than 50 percent of total assets financed by a company's creditors. In 41 percent of the cases less than 20 percent of total assets were provided by debt, either long or short-term. Three firms reported no debt of any kind. The position becomes even clearer on examination of long-term debt in the capital structure of the companies. Forty-six percent of the firms interviewed reported no long-term debt at all, and 78 percent of the firms had less than 20 percent of their capital resources in long-term debt. Only 11 firms reported a greater than 30:70 debt/equity ratio. Non-availability of long-term money on reasonable terms is a major reason, and of paramount importance is the question of collateral. It is also worth noting that small businessmen show a certain reluctance to expose themselves to bank audits in connection with loans, lest this act compromise them in the eyes of the tax authorities. Annex 9 carries an analysis of ratios pertaining to liquidity and indebtedness.

2.5.7.4. BANK CREDIT

Almost without exception the companies interviewed cited inaccessibility of bank credit on reasonable terms as a major financial problem tending to limit their activities and acting as a disincentive to investment. The owners of small businesses generally find it difficult to obtain bank financing, particularly in the form of long-term loans,

particularly for permanent working capital, and particularly in the more remote areas. The delays experienced in processing loan applications, a procedure little understood by small-scale businessmen, is a further deterrent to applying for bank loans.

Bolivia's commercial banks are reluctant to lend to SSI because of what they perceive to be a high-risk factor. Conflicting opinions were obtained in respect to whether there is in fact a higher risk in lending to small-scale industry than there is in lending to larger firms. Inasmuch as SSI in Bolivia is found to be just as profitable if not more profitable than medium and large enterprises, the fear of high risk may be more imagined than real. More than likely the behaviour patterns of small businessmen undermine confidence on the part of the bankers. Commercial banks are reluctant to lend to SSI also on the grounds that loan applications from this sector are costly to process and that the loans are expensive to supervise, particularly when one considers the relatively small amounts involved. Bankers claim that an inordinate amount of staff time is needed to extract the necessary qualifying data from small-scale entrepreneurs. It is a fact that the spreads on existing lines of credit are not sufficiently attractive to cover the cost of lending to SSI, especially when one considers alternate investment possibilities available to the commercial banks.

The terms under which bank credit is available are almost universally considered by small-scale entrepreneurs to be unreasonable, first in terms of interest rates charged, second in respect to repayment periods, and third in regard to collateral requirements. In Bolivia, interest rates are in fact relatively high because the financial cost of resources to the banks is high. Interest rates paid on savings deposits in pesos range from 10 percent to 11.75 percent. US dollar deposits yield up to 9 percent per annum. The average cost of resources to Bolivian banks is roughly 8 percent, but this varies depending on the proportion of savings accounts to current accounts, the amount of rediscounting in which a bank engages, and the amount of foreign borrowing incurred. Interest rates charged by commercial banks to SSI vary from 12 percent for loans discounted at the Central Bank to more than 30 percent on short-term commercial loans with



interest prepaid and various commissions attached (see section on private commercial banks). Local currency loans from the Banco Industrial (BISA), which are rarely available to SST, are made at 15 percent, and foreign currency loans from the same source are in the order of 12 percent. Companies that are forced to go to private money lenders for short-term credit because they cannot meet the conditions of commercial banks must pay effective interest ranging as high as 5 to 10 percent per month. In order to avoid delays, red-tape, and the possible embarrassment involved in asset appraisal (vis. tax liability), small-scale industrialists often accept offers of bi-lateral financing from foreign banks in connection with the purchase of machinery and equipment (see section on private commercial banks).

Repayment periods on loans from commercial banks are usually less than 5 years, and grace periods are rarely available. There is, however, a movement into longer maturities, because recent bank legislation is forcing the commercial banks to keep a larger percentage of their portfolios in medium-term loans (see section on private commercial banks). The principal development bank, BISA, makes working capital loans for up to 3 years and loans for fixed assets up to 10 years.

The general practice among Bolivian banks is to take personal guarantees on all loans under 3 years, and mortgages on real property, machinery and equipment and inventories as collateral for loans exceeding 3 years. Longer term loans usually carry both types of guarantees. The guarantee policy is conservative, the banks normally requiring up to 2 times loan coverage with real estate and up to 3 times coverage with machinery and equipment. A number of firms interviewed asserted that banks have asked for loan coverage of 5 or 6 times, but this probably stems from disagreement over the appraisal of the fair market value of the asset in question, the banks' appraisers attaching lower values than the owners themselves would estimate. In any case, guarantees are usually considered to be excessive and a real hindrance to the usage of bank credit.

In the opinion of the Banco del Estado, which had particularly constructive advice to give on ways to assist SSI, the standard form of collateral should not be applied to this sector. More reliance should be placed on the merits of a given project as the best form of guarantee for any bank, and this raises the question of technical assistance to entrepreneurs in preparing bankable projects. Another as yet little used form of guarantee is the assignment to the financing agency of the sales proceeds resulting from any given project. However, this once again calls for costly supervision, which the banks are reluctant to accept. In any case, it is necessary to agree with the Banco del Estado that special and not standard arrangements need to be made for security on loans to small entrepreneurs due to their general inability to meet standard collateral requirements. The newly proposed Productive Credit Guarantee Program of USAID and the Central Bank merits special attention in this regard (see section on Central Bank).

3. INSTITUTIONAL FRAMEWORK

3.1. GOVERNMENT POLICIES

The Five-Year Development Plan 1976-1980 calls for a more dynamic and balanced participation of the industrial sector in GDP, pointing to the rather low (12.5 percent) contribution achieved in 1976 and to the composition of industrial output, the latter consisting mainly of consumer goods that are usually manufactured in small and inefficient units. The plan envisages a growth rate for industrial production of 9.8 percent per year compared with an average of 7.2 percent achieved in the previous five-year period. According to the plan, the country is to take advantage of export possibilities within the Andean Group and other neighbouring regional markets, and an expansion of the domestic market corresponding to an increase in population, personal income, and availability of raw materials (e.g. minerals, natural gas and oil, farm commodities).

Total new investment for the five-year period is estimated at US\$ 2.2 billion, of which about US\$ 1.7 billion (76 percent) are for public sector projects. Strong emphasis is put on large projects, especially those destined for the Andean Market (metal, mechanical, petrochemical and automotive products), and the processing and refining of minerals (tin, copper, zinc, silver, bismuth).

No mention is made in the five-year plan of the role SSI are expected to play. In fact, there is not a clearly defined policy towards this sector, although it is obvious that many components, intermediates and services necessary for the larger projects will have to be supplied from small and medium-size enterprises. These must be planned and organized well in advance.

This lack of a Government policy toward SSI is reflected at all institutional levels, where preference for large projects or enterprises is apparent. The situation is not likely to change as long as performance of Government agencies dealing with industrial development is measured in terms of investment value, value of industrial output, or number of jobs created.

Another tendency is to confuse SSI with the artisan sector at the other end of the scale. Although artisans and small industrialists have some common features (owner-management and problems of access to credit, incentives and Government protection), they are essentially different in Bolivia. Artisans belong to the informal sector and function more or less at the margin of the Government's knowledge and control and are therefore not subject to taxation or regulations regarding minimum wages and fringe benefits. SSI are expected to conform to Government regulations, although the degree to which this is enforced varies considerably.

Small businesses in other sectors of the economy such as mining, agriculture and artisanry, are nowadays receiving more attention than is SSI from the Government and from institutions like IBERD

and USAID. These have exerted considerable influence in the establishment of policies and procedures favouring the development of these sectors as a pre-condition for financial assistance. Some aid programmes in both rural and urban areas focus on small business as a means to fight poverty and achieve a more rational and just income distribution. However, SSI have benefited only marginally from these programmes.

The situation of SSI in Bolivia contrasts with other countries, including those with a high level of industrialization, where there is recognition that problems affecting SSI differ from those of large and medium-size enterprises and from those of the artisan sector. This recognition has led to special legislation and treatment for SSI, in the understanding that these units are the seedlings of larger enterprises. A weak and stagnant SSI, such as we find in Bolivia, will in the opinion of the mission never lead to sound industrial development. Therefore, it is advisable that the Bolivian Government initiate a comprehensive plan in favour of SSI, setting-up adequate policies and goals, establishing priorities for industrial activities, and identifying critical areas in which governmental action is necessary. At the same time, strengthening and reorganizing existing Government institutions should be carried out.

.2. INVESTMENT INCENTIVES

Incentives for all new investment are granted under the "Investment Law" (Decree-Law No. 10045 of 10 December 1971), which is administered by the National Institute for Investments (INI). Chapters V and VI of the Investment Law deal with industry. The "Rules for National Industrial Integration" (Supreme Decree No. 13050 of 7 November 1975) apply to assembly industries and give INI the right to decide upon Government incentives on the basis of projected value added. In neither case is SSI treated differently from any other industrial sector.

The incentives provided under the Investment Law are summarized in Annex 10. The most important incentives are: (1) exemption from import duties on machinery and equipment, raw materials and supplies not produced in Bolivia, (2) refund of customs duties on raw materials and supplies re-exported as

finished products, and (3) in certain cases income tax exemption proportional to reinvestment of profits. New industries are divided into three categories according to the economic importance of each activity, the first category receiving maximum incentives. Activities included in the first category are those related to the programmes of the Andean Group (metal, mechanical, petrochemical, chemical, pharmaceutical, automotive, electric and electronic products). The second category includes production of intermediate goods and inputs for first category products, agro-industries, consumer goods and explosives. Other products not covered in the first two groups belong to the third category.

In addition to failing to provide special treatment for SSI, the Investment Law and its application have disadvantages for the small-scale entrepreneur. An application for benefits requires a complete feasibility study of the proposed investment, even for a modest investment or replacement or improvement of existing installations. Since in a great number of cases the incentives are limited to customs duty exemption on imported machinery and equipment (about 10 percent of c.i.f. value), many SSI are automatically excluded because the cost of the feasibility study exceeds the benefits. Additionally, applicants report 6 to 24 months processing time with corresponding price increases which SSI cannot afford. To many small-scale businessmen the Investment Law is difficult to understand, thereby necessitating explanations and assistance in preparing applications for incentives. In some cases complete ignorance of the Investment Law was found to exist, indicating that its promotion is necessary.

Export incentives are confined to the "draw-back" system for imported raw materials and inputs. For financial and practical reasons, SSI are not able to import directly and therefore benefit from the system. Information regarding fiscal incentives for exporters frequently reaches only the intermediaries engaged in export sales and not the manufacturers. In contrast, other Latin American countries have export bonuses which allow for the refunding of custom duties on locally purchased raw materials and supplies that were originally imported by commercial firms. In the latter respect, the example of Colombia should be studied for possible application in Bolivia.<sup>1/</sup>

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<sup>1/</sup> Export incentives of this nature were recently enacted in Bolivia but are not yet in effect (Decree-Law No. 14803 of 8 August 1977).

Together with simplification of existing application procedures, the Investment Law urgently requires amendment if the Government seriously intends using it as a tool to promote private investment in general. The present requirement for a complete feasibility study in order to establish eligibility for incentives, while obviously necessary for new ventures, should be relaxed in favour of a brief justification for expansion or modernization of existing small-scale businesses. The incentive for the reinvestment of earnings, namely reduction of taxable income by the amount of the reinvestment, is at present limited to further investment in the same company which generated the earnings. It is recommended that this incentive apply to the creating of new capacity in any form, e.g. in new ventures or in other existing firms. Decentralization of industry to less developed regions of the country could be assisted through utilizing this incentive.

All such modification of existing incentives and the introduction of new ones could justify a new special legislation for SSI or the incorporation of special provisions into existing legislation.

### 3.3. INSTITUTIONS DEALING WITH SSI<sup>1/</sup>

#### 3.3.1. THE SECRETARIAT OF THE NATIONAL COUNCIL FOR ECONOMY AND PLANNING (CONEPLAN)

CONEPLAN performs the general tasks of planning and coordinating for all sectors of the economy. It is also in charge of preparing social and economic surveys for the various executive bodies of the Government. CONEPLAN has played an important role in the preparation of the Investment Law and in the creation of the existing institutional infrastructure dealing with industry, including SSI.

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<sup>1/</sup> Financial and credit institutions are not included in this section but rather in Section 3.4.

The Secretariat of CONEPLAN has an Industrial Sector Department that prepares, evaluates and up-dates on an annual basis the five-year plans for industry, for which purpose it collects information from public and private sources. As mentioned previously, neither the Five-Year Plan nor the 1977 Annual Plan contain policies, strategies and goals specifically designed for SSI. It is evident that CONEPLAN is concentrating on large-scale projects as a means to accelerate industrial development.

2.2.

#### DEPARTMENTAL DEVELOPMENT CORPORATIONS

The Departmental Development Corporations (Corporaciones de Desarrollo) are an extension of CONEPLAN. They are responsible for planning and executing publicly financed projects in each Department and for monitoring the various sectors of the economy, including industry.

Some of these corporations are well organized and carry out their work with great enthusiasm and an acceptable degree of efficiency. For the industrial sector, they prepare feasibility studies, organize ventures with private participation, plan and construct industrial parks and cope with infrastructure problems, especially those related to transportation, power, water and sewerage.

The development corporations of Santa Cruz and those of Tarija, Potosi and Sucre are actively promoting the creation of regional development finance corporations that would provide credit on concessionary terms.

This is in response to problems faced by private entrepreneurs in obtaining financial assistance from the established commercial banking system.

There is, however, a lack of coordination of the corporations' activities, resulting in undue competition for relatively small markets. In the field of industry, projects for such products as vegetable oils, leather and wood products, and wines and spirits are contemplated by almost all of the corporations visited by the mission.

3.3.3. THE NATIONAL INSTITUTE FOR INVESTMENTS (INI)

INI was created by Decree-Law No. 10045, of December 1971, to be responsible for the administration of the Investment Law. It operates as an autonomous unit under the supervision of the Ministry of Industry, Commerce and Tourism (MICT). Its Board of Directors is composed of the Minister of Industry as chairman, the Ministers of Finance and of Planning and Coordination, and two representatives of the private sector.

INI's functions and competence also include guidance to entrepreneurs regarding investment incentives and investment opportunities. The bulk of INI's work is the processing of applications to obtain the benefits of the Investment Law. Although INI has a small Department of Promotion Assistance and Surveys to collaborate with private initiative, the impact of these activities has yet to reach small enterprises.



Between January 1972 and August 1977 INI had approved or registered a total of 321 projects, representing an investment of US\$ 405.6 million (see Annex 11). Of these, 67 projects (or 24 percent) constituted an investment of less than US\$ 100,000; 38 projects (or 12 percent) were below US\$ 50,000, and only 12 projects (or 4 percent) were less than US\$ 20,000. The situation improved in 1977, when in 8 months 22 projects of less than US\$ 100,000 each, or about 27 percent of all applications during that period, were registered.

From the figures mentioned above and considering that the Investment Law is intended for all types of economic activity, one may conclude that the number of SSI that have received the benefit of Government incentives is very low. The main reason for this is the fact that the bulk of Bolivian SSI with an average age of about 18 years, could not benefit from incentives granted under the Investment Law, which was introduced only for new investments in the year 1972. Therefore, the sample shows that only 3, or about 4 percent of the enterprises interviewed, actually received benefits under this law, while 51 enterprises, or 65 percent, started operations before 1972 and thus are excluded from the incentives altogether.

These figures also reflect those entrepreneurs who were entitled to incentive but never presented applications to the Government because of the cumbersome procedures. The mission discovered entrepreneurs who are not knowledgeable of existing incentive schemes, which indicates that much more should be done to publicize these opportunities.

Aware of its present limitations and inefficiencies, INI has expressed interest in obtaining assistance from international organizations to train its professional staff, to simplify procedures, to identify investment opportunities, to prepare feasibility studies and to organize the promotion of new projects among local and foreign investors. However, even with this help it will be difficult for INI to concentrate on SSI, which require more attention than do large-scale enterprises. As long as INI's performance is measured by comparing staff-time input with the investment value of approved projects, SSI will continue to have low priority for INI.

4. THE BOLIVIAN INSTITUTE FOR SMALL-SCALE INDUSTRY AND ARTISANRY (INBOPIA)

INBOPIA was created by Supreme Decree No. 11734, of 28 August 1974, and started operating in June 1975. As an autonomous public institution supervised by the MICT, it is authorized to engage in a broad spectrum of activities. INBOPIA is mainly in charge of promoting new projects for SSI and artisans and in providing financial and technical assistance to improve the productivity of existing enterprises. INBOPIA is also involved in the formulation of policies and incentives and the coordination of activities of all institutions dealing with the two sectors.

With a current budget of only US \$140,000 and a staff of 35 persons, of which 14 are professionals (see Annex 12), INBOPIA can achieve very little in view of the fact that there are 1,600 SSI and 15,000 artisan workshops. The fact that INBOPIA was only recently created and therefore has a relatively inexperienced staff contributes to its lack of success thus far. Up to now, INBOPIA has concentrated on the following activities:

- a) Preparation of a sector analysis of SSI and artisanry (in process).
- b) Establishment of a National Registry for SSI and artisans.
- c) Promotion of handicrafts for export markets.
- d) Promotion of artisans cooperatives for the production and commercialization of handicrafts. <sup>1/</sup>

From items (c) and (d) above, it is obvious that INBOPIA is more concerned with artisans than with SSI and that handicrafts have the highest priority. For this purpose, the institution is receiving financial assistance from USAID and technical assistance from IDB. On the basis of its statutes, INBOPIA properly reinforced and organized could be the best source of technical assistance and extension services for modernizing the SSI sector. Certain urgent needs of SSI, as identified by the mission, clearly come under the responsibility of INBOPIA, and these are:

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<sup>1/</sup> An example is "Manos de Bolivia", a conglomerate of 9 cooperatives located around Lake Titicaca manufacturing handwoven sweaters and other garments from alpaca wool.

- a) Identification of investment opportunities.
- b) Preparation of industrial profiles and feasibility studies.
- c) Preparation of applications for credit and investment incentives.
- d) Extension services to existing enterprises to improve productivity and efficiency, including basic systems of financial, operational and production management.
- e) Promotion of services and incentives available to SSI through INBOPIA, INI and other public, private, national and international organizations.
- f) Planning and construction of industrial estates and parks.

Giving due credit to the importance of export promotion for handicrafts, the mission believes that this activity requires a specialized organization, with a network of show-rooms and distribution channels in the most popular tourist centres of the country and in selected cities abroad. It also requires assistance to develop new designs, to improve manufacturing techniques, to supply raw materials and to develop new markets. This programme is too large for INBOPIA's existing organization and structure. As an example, INBOPIA has so far unsuccessfully engaged in the marketing of wool products in competition with another institution, the Committee for Development of Wool (COMBOPIA). In order to use its limited resources in the best way, INBOPIA should assist in organizing marketing entities for handicrafts, including those made out of wool, rather than in being directly involved in marketing activities. Such policy would free INBOPIA to concentrate on providing much needed technical assistance to SSI and artisans.

In order to enhance INBOPIA's role as a source of technical assistance for SSI, the Government should give greater financial support to the organization. In addition, the mission recommends that assistance, both financial and technical, be provided to INBOPIA by international organizations.

3.3.5.

THE NATIONAL SERVICE FOR LABOUR TRAINING (FOMO)

Since 1972, FOMO has been charged with preparing and training workers for different sectors of the economy. According to FOMO, only 10 percent of available labour in the country is skilled. This low percentage reflects in part the large number of unskilled workers in the agricultural sector.

In the industrial sector, the Five-Year Development Plan 1976-1980 calls for the formation of some 31,500 qualified workers, or about 11 percent of the requirements of all economic sectors. To meet these targets, FOMO trained some 2,500 persons during its first three years of operations and an additional 2,600 persons in 1976. Special training for industry covers welding and operating of machine tools for metal and wood processing. Other fields of training are electric installations, electronics and automotive repair.

FOMO has thus far received technical and financial help from Spain, Brazil, USA, West Germany, Switzerland, France and from international agencies including ILO and UNDP. Agreements for training have been concluded with private industries or groups of industries (e.g. textiles and furniture), local development corporations and other official agencies.

Despite FOMO's success with training programmes, it is obvious that resources available are insufficient for such an ambitious programme. There is great scope for additional help, using domestic, multilateral and international aid resources. In the meantime, industry is obliged to rely on its own capacity for preparing and training workers, and this is particularly burdensome for small companies.

3.3.6.

THE DIVISION FOR EXPORT PROMOTION (FOMEX)

FOMEX is a section of the Central Bank in charge of export promotion and technical assistance to exporting firms. Among other services, FOMEX provides information on international fairs and trade conventions. It publishes a Directory of Exporters and a Letter to the Exporter containing references to potential customers abroad. Exports promoted include handicrafts and agricultural and manufactured products such as canned foods and preserves, leather, cocoa, chestnuts, coffee, parquet and veneer. Traditional exports like mineral concentrates and sugar are not within the sphere of activity of FOMEX.

POMEX has no direct contact with either SSI or artisans, which in any case do not normally export directly but through cooperatives or export firms. On the other hand, information on importing firms in other countries is available to any enterprise, regardless of size.

3.3.7 THE TECHNICAL COUNCIL FOR THE PROMOTION OF EXPORTS

This office was recently created by Decree-law No. 14803, of 5 August 1977, to administer the export incentives established under the same law. Tax bonuses granted in proportion to the local value added of the exported products are in accordance with the following table:

TABLE N° 11

BOLIVIA: Export Incentives for Manufactured Products

| <u>Local Value Added as percentage<br/>of F.O.B. Value</u> | <u>Tax bonus as percentage<br/>of F.O.B. Value</u> |
|--|--|
| From 0.0 to 10   | 5  |
| 10.1 30  | 7  |
| 30.1 40  | 9  |
| 40.1 50  | 12   |
| 50.1 60  | 16   |
| 60.1 70  | 21   |
| 70.1 100   | 25   |

Source: Decree-Law No. 14803

Traditional exports, such as minerals and agricultural products, as well as raw materials whose export is prohibited are excluded from these export incentives. This scheme will be effective after approval of internal regulations prepared by the Technical Council. Again, the beneficiaries may be exporting firms and not necessarily small manufacturers.

3.3.8 THE NATIONAL CHAMBER OF INDUSTRIES (CNI)

CNI, with a membership of some 920 industrial enterprises (see Annex 13) covers about 50 percent of all private industrial enterprises in Bolivia, which are estimated to number around 2,000. Artisans are not members of CNI and are therefore excluded from these figures. Twenty-eight percent of CNI members are located in La Paz, 25 percent in Santa Cruz, 23 percent in Cochabamba,

and the remainder in other Departments. Members are divided into three categories according to the amount of their paid-in capital, and membership fees are proportional to this capital. It is therefore understandable that companies tend to understate their capital to limit their CMI fees and that statistical information submitted to CMI is largely unreliable. SSI belong to the Third Category.

Among the services provided by the CMI to its members are information on existing laws and Government procedures, on manufacturers of machinery and equipment, on financial institutions and on market opportunities. However, CMI's work is restricted by the small number of personnel in charge of these tasks and by the difficulties of communicating by mail and telephone with industrialists located outside of La Paz and other major industrial centers. Although efforts are being made by CMI to coordinate its activities with the Departmental Chambers of Industry, it remains difficult to maintain contact with members outside of La Paz.

.3.9.

#### INDUSTRIAL ESTATES AND PARKS

The responsibility for the planning and construction of industrial estates and parks lies with the Departmental Development Corporations. Practically all of them are handling such projects, which are at various stages of progress. The most advanced park is located in Santa Cruz; it is already in partial operation. Cochabamba has completed plans for an industrial estate where enterprises resulting from the implementation of the automotive industry programme of the Andean Group will be located. Oruro has just invited international competitive bidding for a feasibility study and final design for its industrial park. Tarija and Chuquisaca are considering similar parks and may need expert assistance to prepare their projects.

None of the industrial parks under implementation has been conceived for SSI exclusively. Again, preference is given to large-scale projects, and in most cases SSI and artisans will benefit only occasionally in case of insufficient demand from medium and large industry. Inasmuch as large enterprises will have to depend on services and sub-supplies from SSI, the location of suitable small-scale enterprises within the industrial parks should be considered desirable. The lay-out of these parks should therefore allow for space destined to a certain number of selected SSI.

A case deserving immediate attention for the planning of an industrial estate is La Paz where, because of land configuration, space available within the city is reaching its limits. Here, industry in general faces a serious problem for further expansion. Existing prices for real estate in La Paz are among the highest in Latin America, and the most seriously affected by this situation are the small entrepreneurs. As of this writing, the Municipality of La Paz and the Development Corporation of La Paz (CORDEPAZ) have not yet reached agreement as to whether an industrial estate should be located in El Alto or farther out on the road to Lake Titicaca. CORDEPAZ, for environmental reasons, opposes construction of more industrial facilities in El Alto, which could, for reasons of topography, spread air pollution into the lower-lying center of La Paz.

#### 3.4. FINANCIAL INSTITUTIONS

The following is a brief review of all financial institutions reported to be dealing with small-scale industry in Bolivia. It bears some reference to artisanry because of overlap in definitions.

##### 3.4.1. BOLIVIAN GOVERNMENT ENTITIES

##### 3.4.1.1. BANCO CENTRAL DE BOLIVIA

The Banco Central de Bolivia (Central Bank), through the Ministry of Finance, advises the Bolivian Government on monetary and financial policies, manages the monetary reserves, regulates the functioning of financial entities, and acts as financial agent of the Government in the handling of internal and foreign debt. It also serves as a channel for various financial resources, among which are funds for the financing of industry. Those funds and programmes which relate to small-scale industry are:

- a) Special Fund for Economic Development
- b) Industrial Refinancing Fund (FRI)
- c) Artisanry Refinancing Line (ARL)
- d) Fund for Agribusiness and Artisanry
- e) Proposed Productive Credit Guarantee Programme

A brief description of these funds and programmes and comments on their usefulness are as follows:

(a) Special Fund for Economic Development

This fund was established in the Central Bank in February 1967, utilizing repayments of three loans from USAID to the Government-owned Corporación Minera Boliviana (COMIBOL). The three USAID loans, totalling US\$ 10.9 million, were made to COMIBOL for a period of 40 years, including 10 years grace, at a rate of interest of 3/4 percent p.a. COMIBOL, on the other hand, has been repaying the loans to the Central Bank over a period of 20 years at 2 percent interest p.a., the difference in terms creating a fund in local currency that has been relent through intermediary banks to various economic sectors. Subloans have generally been made for periods of less than 5 years at 12 percent P.a., of which 7 percent is retained by the Central Bank and 5 percent by the intermediary banks.

As of July 1977, subloans totalling US\$ 26.4 million equivalent had been financed from this fund, and 60 percent of these were administered by Government-owned banks (Del Estado, Agrícola, and Minero). The Banco del Estado alone accounted for 45 percent of the subloans. The major portion of the subloans has been for agriculture and livestock. The distribution of subloans by economic sector is as follows:

TABLE N° 12

Bolivia: Central Bank - Distribution of Special Fund Credits by Economic Sector as of December 31, 1976

| <u>Sector</u>                | <u>US\$ '000 equivalent<br/>Cumulative</u> | <u>Percent</u> |
|------------------------------|--|----------------|
| Construction                 | 6,800                                      | 28.6           |
| Exports                      | 2,465                                      | 10.4           |
| Industry                     | 4,545                                      | 19.1           |
| Agriculture and<br>Livestock | 9,835                                      | 41.3           |
| Mining                       | 105  | 0.4            |
| Artisanry                    | 40   | 0.2            |
|                              | <u>23,790</u>                              | <u>100.0</u>   |

Source: Banco Central de Bolivia



Records were not available to indicate the amount from this fund that has gone to small-scale industry, but it is said to be negligible. None of the firms interviewed during the current survey had benefited from loans from this special fund.

As of December 31, 1976, the balance of loans outstanding under this programme was US\$ 4.8 million equivalent.

b) Industrial Refinancing Fund

The Industrial Refinancing Fund (FRI) was created in September 1972 by means of a loan to the Central Bank from USAID in the amount of US\$ 7 million and US\$ 1 million equivalent in counterpart funds of the Central Bank. The USAID loan was for a period of 40 years, including 10 years' grace, the interest rate being 2 percent p.a. during the grace period and 3 percent p.a. thereafter. Proceeds of the fund have been used for making subloans in local currency through the Bolivian banking system to the private sector for the establishment, expansion and modernization of industrial enterprises. The FRI fund was fully disbursed within a three-year period, i.e. by the end of 1975, and since then the fund has operated on recuperation of previous subloans.

The system provides for subloans to be channelled through intermediary financial institutions. The Government-owned Banco del Estado has handled 23 percent of the loans by number and 29 percent by value. The balance has been channelled through all but two of Bolivia's private commercial and specialized banks, the largest users being the Banco Industrial, Banco Mercantil, and Banco Hipotecario Nacional. Annex 14 shows the distribution of FRI loans by financial intermediary.

Although no particular emphasis was given to agro-industry or small enterprises in the design of the FRI project, 27 percent of the original funds were allocated to agro-industry, and 68 percent of the subloans were for US\$ 50,000 equivalent or less. The maximum allowable subloan is US\$ 400,000 equivalent. Approximately 70 percent of the subloans have been for expansion and improvement of existing facilities, while 30 percent have been for establishing new enterprises. As of

the end of October 1977, a total of 225 enterprises had been financed, with the following geographical distribution:

TABLE N° 13

BOLIVIA: Central Bank - Distribution of FRI Subloans by Department as of December 31, 1976

| <u>Department</u> | <u>Number of Subloans</u> | <u>Percent</u> | <u>Amount of Subloans (US\$ '000 equivalent)</u> | <u>Percent</u> |
|-------------------|---------------------------|----------------|--|----------------|
| Ia Paz            | 65                        | 28.9           | 4,985  | 48.3           |
| Cochabamba        | 53                        | 23.6           | 2,573  | 24.9           |
| Santa Cruz        | 54                        | 24.0           | 2,076  | 20.1           |
| Chuquisaca        | 23                        | 10.2           | 333  | 3.3            |
| Tarija            | 4                         | 1.8            | 17   | 0.2            |
| Potosi            | 7                         | 3.1            | 162  | 1.6            |
| Oruro             | 7                         | 3.1            | 65   | 0.6            |
| Beni              | 12                        | 5.3            | 105  | 1.0            |
| Pando             | 0                         | 0.0            | 0  | 0.0            |
|                   | <u>225</u>                | <u>100.0</u>   | <u>10,317</u>                                    | <u>100.0</u>   |

Source: Banco Central de Bolivia

The fund has been utilized as indicated in the following table:

TABLE N° 14

BOLIVIA: Central Bank - Uses of FRI Funds as of December 31, 1976

| <u>Purpose</u>                        | <u>Amount US\$ '000 equivalent</u> | <u>Percent</u> |
|---------------------------------------|------------------------------------|----------------|
| Working capital and local expenses    | 2,949                              | 28.6           |
| Investment capital and imported goods | 7,366                              | 71.4           |
| Feasibility studies                   | 2                                  | 0              |
|                                       | <u>10,317</u>                      | <u>100.0</u>   |

Source: Banco Central de Bolivia

In respect to purpose of loans, 43 percent has been for working capital and 57 percent for investment in fixed assets.

The intermediary banks charge 12 percent p.a. interest on sub-loans utilizing FRI funds, and this is considerably lower than standard commercial rates for loans to the productive sector (16 percent p.a.). Out of the 12 percent, 5 percent are retained by the commercial banks and 7 percent by the Central Bank.

Eighty-two percent of the sub-loans have been with maturities of 1 to 5 years, and 18 percent with maturities of 5 to 10 years. The average term for investment capital has been 4.9 years, and the average term for working capital 1.8 years. Because of short payback periods, it was possible to finance sub-loans totalling US\$ 11.6 million equivalent between initiation of the programme and June 1977. The balance outstanding of FRI sub-loans as of the same date was US\$ 6.3 million equivalent.

Approximately 2,200 new jobs have been created thus far as a result of the FRI programme. The average amount of investment per job has been US\$ 5,760 equivalent.

During 1976 the number of sub-loans approved under the FRI programme declined by 45 percent and the trend continued into 1977. The reasons are the slow recuperation of funds now that the original source has been exhausted, lack of knowledge on the part of many small-scale entrepreneurs as to the existence of this fund, and last but not least the lack of interest on the part of borrowers due to legal red tape and collateral requirements.

A major criticism of the FRI lending programme is that it has reached and continues to reach mainly medium and large industries in urban areas. It is estimated that less than 30 percent of the FRI sub-loans were to industries that qualify as small-scale under our definition, even though most of the sub-loans were for amounts of less than US\$ 50,000 equivalent. The average size of loans has been approximately

US\$ 60,000 equivalent. The number of companies within the mission's survey that are using or have utilized FRI sub-loans is 11, constituting 13 percent of the sample.

Another criticism of the programme is that technical assistance in terms of project identification and preparation has been neglected. The Central Bank, with a staff of 14 professionals, is theoretically capable of expert financial analysis. However, it is up to the commercial banks to initiate the sub-loan requests for subsequent Central Bank approval, and it is the commercial banks that are doing little or nothing to assist the investor in preparing bankable projects. Lack of attention to this matter on the part of the commercial banks may also be traced to the 5 percent p.a. interest they receive, which many bankers believe to be too low to warrant the extra effort in terms of time and manpower required to provide such technical assistance.

The time involved in processing a sub-loan under the FRI programme has also been the cause of concern to clients. The procedure often takes up to six months to complete. Delay within the intermediary commercial banks is usually caused by problems in obtaining sufficient security on the loan and excessive paper work.

c) Artisanry Refinancing Line (ARL)

In 1974 the Central Bank established with its own resources a US\$ 1.5 million equivalent refinancing line of credit for artisanry subprojects. This included financing for typical handicrafts and small-scale productive enterprises. Within one year, sub-loans were made through the commercial banking system to 865 artisans, with the maximum sub-loan fixed at US\$ 3,000 equivalent and an average sub-loan of US\$ 1,750 equivalent. As of June 1977, sub-loans totalling US\$ 2.1 million equivalent had been made from this fund. Terms are up to 18 months for working capital and up to 5 years for investment capital. The interest rate is 12 percent p.a. of which 7 percent is paid to the Central Bank and 5 percent retained by the intermediary bank. The private banking system has made 63 percent of the sub-loans, and the Banco del Estado 37 percent. According to the Central Bank, the repayment record has been excellent. This fund has created about 1,300 jobs and contributed to the recent expansion and export of Bolivian handicrafts. The distribution of sub-loans by Department is as follows:

TABLE N° 15  
Bolivia: Distribution of ARL Credits by Department  
as of December 31, 1976

| <u>Department</u> | <u>Amount</u><br><u>US\$ 000 equivalent</u> | <u>Percent</u> |
|-------------------|---|----------------|
| La Paz            | 192.4                                       | 9.4            |
| Santa Cruz        | 216.5                                       | 10.6           |
| Cochabamba        | 621.4                                       | 30.3           |
| Sucre             | 306.1                                       | 14.9           |
| Tarija            | 318.7                                       | 15.5           |
| Potosi            | 130.8                                       | 6.4            |
| Oruro             | 164.3                                       | 8.0            |
| Beni              | 94.0  | 4.6            |
| Pando             | 6.4   | 0.3            |
| <b>TOTAL</b>      | <u>2,050.6</u>                              | <u>100.0</u>   |

Source: Banco Central de Bolivia

A principal criticism of the Central Bank's artisanry refinancing line is that the programme extends mainly to urban areas and that rural areas continue to be neglected, although this was not the original intention of the programme.

d) Proposed Fund for Agribusiness and Artisanry

The Central Bank and USAID are now in the process of creating a refinancing fund similar to FRI for agribusiness and artisanry. It is expected that this new fund will be operational by the end of 1978. Agribusinesses are defined as those that provide inputs for small farmer production purposes or for the marketing of small farmer products. Artisan activity in urban areas is limited to activities which involve the processing of agricultural products, e.g. wool, leather and wood. The financing of other types of artisanry, such as metalworking, furniture manufacturing and cottage industries, would be limited under this programme to projects located in rural areas only. The seven cities visited by the mission, which are the largest concentrations of SSI in the country, are thus excluded.

The fund will consist of a loan from USAID to the Bolivian Government in the amount of US\$ 6.2 million and US\$ 3.2 million equivalent in funds of the Central Bank. The USAID loan is proposed for a period of 40 years, including a grace period of 10 years, with interest at 2 percent per annum during the first ten years, and 3 percent thereafter. Sub-loans will be channelled through the Bolivian banking system at an interest rate of 13 percent p.a. for periods of up to 10 years. Sub-loans will be limited to 80 percent of the principal of eligible loans. The upper limit on sub-loans will be US\$ 400,000 equivalent for agribusiness and US\$ 15,000 equivalent for artisanry. Out of the 13 percent p.a. interest, the Central Bank will retain 3 percent as opposed to the 7 percent it has retained on sub-loans from FRI. The intermediary banks will receive 5.5 percent for sub-loans to urban agribusiness, 6.5 percent for sub-loans to rural agribusiness and urban artisanry, and 7.5 percent for sub-loans to rural artisanry. This spread to the intermediary banks is higher than

on the FRI sub-loans and reflects the previous lack of interest on the part of the intermediary banks when the spread was limited to 5 percent. It also reflects the determination on the part of USAID to utilize the commercial banking system as the best channel for sub-loans to small entrepreneurs.

The balance of the interest (from 2.5 percent to 4.5 percent) will be placed in a special technical assistance fund, also to be managed by the Central Bank. The latter is intended to provide a wide range of technical and promotional services to participating sub-lenders and sub-borrowers. Its major activities will be:

- (i) to finance an inventory of industrial projects for the benefit of the banking community,
- (ii) to finance promotional and training activities undertaken by participating banks, and
- (iii) to finance sub-project development from the idea stage through feasibility study.

The technical assistance programme will be funded initially by a US\$ 200,000 grant from USAID and US\$ 200,000 equivalent from the Central Bank, the latter originating from the interest spread to the Central Bank on earlier USAID loans. USAID grant financing will also be used to provide a long-term adviser to the Central Bank on the administration of lending and technical assistance programmes.

This new project is expected to result in US\$ 13.9 million equivalent additional direct productive investment in agribusiness and artisanry in Bolivia over the next 5 years, not including resources invested by sub-borrowers in their own projects. The project is expected to finance over 630 sub-loans over the five-year period and create about 5,000 jobs. Industries that qualify under this programme

are likely to overlap those that qualify under the mission's definition of SSI, particularly agro-industries and small businesses in rural areas. On the other hand, the programme is limiting in terms of eligibility, and the USAID officials that were interviewed stressed the need for complementarity of programmes to assure aid to all types of SSI. USAID would like to see a co-ordinated approach by all lending institutions, not only for lending but also for providing technical assistance in project identification and preparation.

e) Proposed Productive Credit Guarantee Programme

This new credit guarantee programme is sponsored jointly by USAID and the Central Bank and has yet to be approved by the participating institutions. It will become operative sometime in 1978. Its objective is to provide institutional credit to persons or groups that presently lack access to such credit because they have insufficient collateral to meet the normal requirements of the lending institutions. As such, it is destined to fill a long-recognized need that was observed repeatedly during the mission's programme of interviews with small-scale businessmen.

According to the plan, a fund is to be established within the Central Bank to guarantee 75 percent of the amount of each qualifying loan made by Bolivian financial institutions. The fund will be capitalized through a one-time guarantee commission of 4 percent on qualifying short-term loans and 5 percent on qualifying medium and long-term loans. It will be supported with up to US\$ 2.5 million from USAID and US\$ 1.25 million equivalent from the Central Bank. The programme will be implemented on a pilot project basis for four years subject to periodic evaluation.



The funds for loans that would be guaranteed under this programme would come from refinancing lines administered by the Central Bank as well as from resources of the participating lending institutions. Technical assistance and loan supervision would be provided to borrowers through another fund administered by the Central Bank. It is proposed that eligible loans should include those to: (1) agricultural production and related infrastructure and services, (2) small-scale privately-owned agro-industries, (3) business enterprises located in rural areas or market towns, (4) artisanry projects located in rural or urban areas, and (5) self-financing, self-help community development projects.

This new guarantee programme may have significant impact, as lack of sufficient collateral has been repeatedly observed to be a stumbling block to utilization of bank credits by SSI. Under this scheme, however, it is probable that SSI in urban areas, which are the primary concern of this mission, will be excluded from the guarantee programme.

1.2. CORPORACION BOLIVIANA DE FOMENTO (CBF)

CBF has in recent years become more of a holding company for Government investments than a development banking institution, although the latter was its original purpose. With investments in approximately 25 different companies, its assets exceed US \$150 million equivalent. In most instances, it is the sole owner of these companies and is directly involved in their management. Major investments are in sugar refining, milk processing, vehicle body construction, ceramics, cement, and metal smelting. CBF has borrowed heavily from the Central Bank to finance these projects and has been unable to meet the scheduled repayments. For this reason, CBF's investment plans have been curtailed, and the Government is arranging a loan from a syndication of foreign banks in order to consolidate CBF's debt and restructure its investments. Most of CBF's investments are very highly leveraged and in need of being recapitalized.

In addition to the refinancing of CBF's debt, the Government's new policy is to decentralise the management of CBF's companies, to divest by selling them wherever possible to the private sector, and to reconstruct CBF along the lines of a development banking institution. Thus far 3 firms have been sold, and CBF has published a list of 12 additional firms for sale with total assets estimated at US\$ 98 million equivalent. CBF is seeking outside assistance for its re-organization effort as well as for the sale of its assets, and the mission had discussions with CBF management regarding possible technical assistance from UNIDO for these purposes.

For a time in its recent history, i.e. between 1966 and 1973, CBF administered a fund for sub-loans to the productive sector. It received three global credits from the Interamerican Development Bank (IDB) totalling US\$ 30 million at an average cost of 4 percent p.a., for a period of 30 years with 10 years' grace, for on-lending to industry, mining, agriculture, tourism and artisanry. An additional sum of US\$ 1 million was provided to CBF for the same purposes by the Corporación Andina de Fomento (CAF) at an interest rate of 6 percent p.a. Out of the total to all sectors, 94 industrial enterprises received sub-loans totalling US\$ 2.9 million equivalent, and the amount channelled to SSI was about US\$ 300,000. The balance outstanding on all sub-loans as of October 1977 was US\$ 560,000. Terms for the sub-loans were 1 to 15 years at 12 percent p.a. interest.

CBF has been much criticized for poor administration of these sub-loans as well as for bias in the selection of candidates. Supervision was not adequate and many of the sub-loans have been in default. The mission believes that, without a major organizational restructuring, CBF is not in a position to administer effectively a lending programme to SSI.

Future plans of CBF include divesting of holdings and remodelling the institution along the lines of a development bank, but it is too early to predict the outcome. CBF's position in respect to financing SSI depends much on the restructuring of its staff and on priorities to be set. Clearly, with changes, it could be a candidate for the administration of financial and technical assistance to SSI. CBF is expecting a new line of credit from CAF for US\$ 10 million, but this would be mainly for agro-industry.

4.1.3.

BANCO DEL ESTADO (BANESTA)

BANESTA has been singled out for special attention because of its potential role in the financing of SSI. It was created in November 1970 to take over the functions of the Banking Department of the Central Bank. The Bolivian Government is the sole shareholder in BANESTA, and although it is a Government institution its orientation is exclusively towards the private sector. It has the character of both commercial and development bank, utilizing public deposits as the basis for making short-term commercial loans and specially designated sources for making loans at lower interest and longer term to priority sectors such as manufacturing industry, agro-industry, export and construction. BANESTA is Bolivia's largest commercial bank, with about 24 percent of all deposits held by the banking system and 44 branches throughout the country. Its paid-in capital by the end of 1976 was US\$ 2.5 million equivalent, capital and reserves US\$ 7.1 million equivalent, portfolio of commercial loans US\$ 33.7 million equivalent and portfolio of development loans US\$ 46.0 million equivalent. BANESTA has financed approximately 28 percent of all sub-loans rediscounted with the Central Bank under the Industrial Refinancing Fund (FRI), far more than any other single institution. It has also financed 37 percent of the sub-loans to artisans under the Central Bank's Artisanry Refinancing Line. Loan approvals in 1975 and 1976 by Sector and Department are given in Annex 15.

Because of its experience in the FRI programme, its character as a Government institution with an obligation to serve the country, its organization with 44 branches strategically located to service remote areas, and its staff of professionals qualified to handle project appraisal and supervision (30 in La Paz and 40 in the field), BANESTA has been mentioned by the banking community as a logical choice for an institution to administer a special programme of lending and technical assistance to SSI. The management of BANESTA is clearly interested in assuming such a responsibility, as evidenced during an interview by the mission with BANESTA's president.

Successful management of a special fund for SSI is not contingent upon Central Bank co-administration, according to the President of DANESTIA, and the mission concurs with this view. The President also stressed the importance of financial contributions from the Bolivian Government as symbolic of the mutual assistance that is required to make this type of programme successful.

3.4.1.4.

INSTITUTO NACIONAL DE PREINVERSION (INALPRE)

INALPRE is a public sector entity under the Ministry of Planning and Coordination, created mainly for the purpose of preparing pre-feasibility and feasibility studies for Government investments. However, a small part of its effort is directed to industry in general and to the private sector, but virtually none of it extends to SSI. INALPRE has a professional staff of 6 persons and a roster of local and foreign consultants on which to draw for specific projects.

Loans for pre-investment studies are granted by INALPRE for periods of up to 8 years at a cost of  $8\frac{1}{2}$  percent p.a.,  $6\frac{1}{2}$  percent being INALPRE's average cost for funds, leaving INALPRE with a 2 percent spread. Its financial resources are a fund of US\$ 14 million equivalent from the Government budget and various loans from the Union de Bancos Bolivianos. Negotiations are in progress for a US\$ 5 million loan from IDB and another US\$ 5 million from the Canadian International Development Agency (CIDA). Sub-loans for pre-feasibility studies are made for a minimum of US\$ 5,000 equivalent and a maximum of US\$ 15,000 equivalent; for feasibility studies, a minimum of US\$ 15,000 equivalent and a maximum of US\$ 100,000 equivalent. SSI are generally neither willing nor able to spend these sums on investment studies as they are out of proportion to the value of their projects. Thus INALPRE cannot be thought of as rendering a special service to SSI.

PRIVATE COMMERCIAL BANKS

The private commercial banking system is made up of ten national and six foreign banks. These 16 banks have a total of 87 offices throughout Bolivia, for the most part concentrated in the departmental capitals.

Annex 16 shows locations for private commercial as well as private specialized banks. Except for those banks that have been active in agricultural lending programs, the commercial banks have had a prevailing urban orientation and have lent on relatively short term for traditional activities such as construction and commerce.

Total deposits registered in all private commercial banks were US \$ 225 million equivalent at December 31, 1976, an increase of 73 percent over the previous year. This phenomenal growth rate of the Bolivian banking system reflects the rapidly increasing usage of banking services throughout the country. Loans to the private sector from private commercial banks totalled US \$ 175.5 million equivalent at year end 1976, an increase of 42 percent over the previous year. The relative positions of private national, private foreign and the state-owned commercial bank in respect to deposits and loans at the end of 1976 were as follows:

TABLE N° 16

BOLIVIA: Deposits and Loans of Private Commercial Banks in 1976  
(in percent)

|                        | <u>Deposits</u> | <u>Loans</u> |
|------------------------|-----------------|--------------|
| Private national banks | 49.6            | 42.1         |
| Private foreign banks  | 26.5            | 26.7         |
| Banco del Estado       | 23.9            | 31.2         |
|                        | <u>100.0</u>    | <u>100.0</u> |

Source: Banco del Estado

Sources of finance for the private sector and distribution of deposits within the commercial banking system are shown in Annex 17. Total deposits and portfolio of loans from each bank's own sources are shown in Annex 18. Annex 12 illustrates portfolio growth and distribution by sector among the private commercial banks.

Private national commercial banks are required to have a minimum capital of US \$ 1 million equivalent, whereas the requirement for foreign commercial banks is US \$ 2 million equivalent. The maximum debt/capital ratio is 30 : 1 for national banks and 20 : 1 for foreign banks. Reserve requirements are as shown in the following table:

TABLE N° 17

BOLIVIA: Reserve Requirements for Private Commercial Banks  
(in percent)

|                | <u>Demand Deposits</u> | <u>Savings Accounts</u> |
|----------------|------------------------|-------------------------|
| National banks | 45                     | 10                      |
| Foreign banks  | 45                     | 15                      |

Source: USAID

Commercial banks must maintain a 10 percent legal reserve in respect to foreign loans when the loan is for less than two years and provided the sub-loans are granted to the productive sector for more than two years.

A law passed in 1975 requires every commercial bank to have at least 75 percent of its loan portfolio in credits to the productive sector and no more than 25 percent in credits to strictly commercial activities. A further restriction in respect to term of loans was enacted in June 1977, requiring commercial banks to apportion their loan portfolios as follows:

TABLE N° 18

BOLIVIA: Compulsory Portfolio Composition of Commercial Banks  
(in percent)

|                        | <u>Term</u>        |                    |
|------------------------|--------------------|--------------------|
|                        | <u>2 - 3 years</u> | <u>3 - 5 years</u> |
| National banks         | 10                 | 5                  |
| Existing foreign banks | 15                 | 10                 |
| New foreign banks      | 20                 | 15                 |

Source: Banco Central de Bolivia

The banks had until March 1978 to make the corresponding adjustments in their portfolios. Those that do not comply are required to invest in bonds of the State. The intent is to manoeuvre the commercial banks from their traditional short-term lending to medium-term activities.

From the above, it is apparent that foreign banks are not treated by the same standards as the national banks. Nevertheless, in the recent past, at least 2 or 3 foreign banks had been making enquiries every week to the Ministry of Finance about establishing operations in Bolivia.

Interest is not paid on demand deposits. The interest schedule for savings and time deposits is as follows:

TABLE N° 19

BOLIVIA: Legal Interest on Savings and Time Deposits  
(in percent)

|                  | <u>%</u> |
|------------------|----------|
| Savings deposits | 10       |
| 90-day deposits  | 10 3/4   |
| 180-day deposits | 11 1/4   |
| 360-day deposits | 11 3/4   |

Source: Banco Central de Bolivia

Dollar deposits yield up to 9 percent per annum. The consumer price index shows annual increases between 5 and 10 percent over the past three years. Due to the relatively low rate of inflation and a satisfactory trade balance, the possibility of a devaluation of the peso in the near future is not foreseen.

In the banking system, the interest rate on commercial loans from the banks' own sources is a nominal rate of 15 percent per annum plus 7 percent per annum tax plus 3 percent per annum commission for a bank employees' benefit fund, for a total effective interest rate of 25 percent per annum. The interest rate on productive loans from the banks' own sources is a nominal rate of 15 percent per annum plus 1 percent per annum tax, for a total effective rate of 16 percent per annum. For certain areas of activity, e.g. production and marketing of cotton, soy, coffee, wood, corn, sugar and livestock, and housing construction and promotion of non-traditional exports, the 1 percent tax is removed leaving an effective rate of 15 percent per annum for loans under 2 years, increasing to 16 percent per annum for loans with terms of 2 to 5 years. The current interest rate for loans from external sources is LIBOR plus from 4 to 6 percent per annum.

Additional fees, commissions, and practices can boost the effective interest rate several percentage points. Examples are front-end fees for closing and for supervision of loans, the practice of requiring prepayment of interest and fees, the practice of requiring compensating balances, a special fee for the benefit of bank employees amounting to 3/4 percent flat every 3 months on renewable loans, and a 1 percent university tax in the Department of Santa Cruz. During the interviews, the mission encountered companies that were paying effective interest rates in excess of 20 percent on productive loans and in excess of 30 percent on commercial loans.

Maturities on commercial bank loans are normally 30 days to 18 months for working capital and 1 to 5 years for fixed capital. Security arrangements for short-term loans are usually in the form of personal



guarantees. Mortgages are almost always required on loans exceeding 3 years, and the value of the collateral must be 2 or 3 times the amount of the loan.

From discussions with Bolivian bankers, it is apparent that they are not interested in increasing their lending activity to SSI, which is in any case minimal, because of the perceived high-risk factor on such loans and because of the excessive cost of processing and supervision. At present the banks can afford to limit their lending activity to well-known and well-established clients. As an indication of their conservative practices, the loss rate on loans for the commercial banking system as a whole is estimated at 1 percent of the portfolio. Arrears over 3 months affect less than 1 percent of the portfolio.

Suppliers' credits denominated in hard currency for capital goods made in Argentina and Brazil are available through the Banco de la Nacion Argentina and Banco do Brasil respectively. Terms are generally 3 to 8 years at 7 to 8 percent per annum interest plus the guarantee of a Bolivian bank, which costs up to  $1\frac{1}{2}$  percent per annum depending on the client's connections.

### 3.4.3. PRIVATE SPECIALIZED BANKS

#### 3.4.3.1. BANCO INDUSTRIAL S.A. (BISA)

Due largely to the support of international financial institutions, BISA has played a major role in the expansion of the productive sector, and its activities are expected to increase significantly. BISA was founded in 1963 as a private development bank under the sponsorship of

the Bolivian National Chamber of Industries and USAID. Its shareholders now number 246. All are private institutions grouped as follows:

|                                | <u>Percent</u> |
|--------------------------------|----------------|
| Private Bolivian banks         | 21             |
| Bolivian firms and individuals | 32             |
| Bolivian mining enterprises    | 15             |
| Foreign investors              | 32             |
|                                | <u>100</u>     |

The largest shareholder is ADELA Investment Company, with 23 percent of BISA's share capital. Among the other foreign investors are the International Finance Corporation (IFC) and Deutsche Gesellschaft für Wirtschaftliche Zusammenarbeit (DFG), both having become shareholders in 1977.

BISA's main office is in La Paz, where 17 professionals are employed. There is a branch office in Santa Cruz, with 3 professionals, and a regional representative in Tarija. Full branch offices are planned for Cochabamba and Tarija in the near future.

As of September 30, 1977, BISA's total assets were US\$ 24.3 million equivalent. Capital and reserves were US\$ 3.7 million equivalent, with paid-in capital at US\$ 3.0 million equivalent. Long-term debt was US\$ 18.9 million equivalent. The loan portfolio stood at US\$ 21.2 million equivalent, and equity investments at US\$ 319,000 equivalent. BISA's profit in 1976 was US\$ 349,000 equivalent after taxes and other deductions, representing a return of 15 percent on invested capital. Loans in arrears over 3 months affected 6 percent of the portfolio, down from the 15 percent level of 1972. Although this shows a considerable improvement in BISA's portfolio, it should be noted that BISA's lending to industry involves more risks than that undertaken by the commercial banks, as indicated by the fact that the latter have a corresponding arrears position of less than 1 percent.

BISA's objectives are (1) to stimulate investment in the Bolivian private productive sector and (2) to give financial and technical assistance to this end. Its principal activity is medium and long-term lending for periods of up to 10 years, but it is also authorized to buy shares in the enterprises that it assists, a function it has thus far exercised very little. In 1976 the loan portfolio was about 19 percent short-term and 81 percent medium and long-term. BISA's past and projected loan operations are shown in Annexes 20 and 21. BISA aims to have at least 10 percent of its portfolio in loans to SSI in the future, but up to now only about 6 percent of loan approvals have been for small companies. BISA defines SSI as those with equity not exceeding US\$ 50,000 equivalent and which employ not more than 50 persons; thus its loans to SSI are difficult to reconcile to our definition. Ninety percent of BISA's loans are in dollars and 10 percent in pesos from its own capital and from loans discounted with the Central Bank.

In its 13 years of operations, BISA's cumulative resources have been in the order of US\$ 35 million equivalent, the principal sources of credit being:

Interamerican Development Bank (IDB)  
International Bank for Reconstruction and Development (IBRD)  
US Agency for International Development (USAID)  
Kreditanstalt für Wiederaufbau (KfW)  
Banco Central de Bolivia (BCL)  
European Economic Community

In addition, during 1977 BISA succeeded in tapping the international capital markets with direct loans from a consortium led by the Atlantic International Bank Ltd. of London, together with the Royal Bank of Canada, Libra Bank Ltd., the First National Bank of Chicago, and the Deutsch-Südamerikanische Bank.

The cost of BISA's financial resources varies from one source to another and from one loan to another from the same source, e.g. 3.25 percent to 8 percent p.a. in the case of IDB, zero to 6 percent p.a. from USAID, 8 percent p.a. from the World Bank, LIBOR plus 2 percent p.a. from the Atlantic International Bank, LIBOR plus 1.75 percent p.a. from the First National Bank of Chicago, and 9.5 percent p.a. from the Deutsch-Südamerikanische Bank. Uncommitted resources as of 30 September 1977, were US\$ 5 million equivalent in domestic currency and US\$ 1.7 million in foreign currency, the latter being principally from a 1976 IBRD loan of US\$ 10 million for industry and mining. BISA is presently negotiating a new US\$ 15 million credit from IDB. Also, as a shareholder in the newly formed Arab-Latin American Bank, BISA may have access to new lines of credit in the future.

Interest rates charged by BISA are 15 percent p.a. for working capital loans in domestic currency up to 3 years, 12 percent p.a. on dollar loans up to 10 years for fixed assets using funds mainly from IBRD and LIBOR plus 4.5 percent p.a. for working capital loans up to 2 years using dollar sources. Other fees are: a 1 percent commitment fee on the undisbursed balance of a loan, soon to be increased to 1.5 percent, and a 2 to 4 percent closing and supervision fee on the full amount of the loan.

Loans of under US\$ 50,000 equivalent are usually channelled through commercial banks and carry the guarantees of those banks at a cost to the client of up to an additional 3 percent p.a. In the latter case, BISA holds the commercial bank responsible for collection and loan supervision.

Where BISA directly manages the loan, it usually holds a mortgage equivalent to 2 to 3 times the amount of the loan.

BISA's plans for the future include issuing bonds in order to raise local currency for lending. It also aims to expand its activities to areas of the country in which it is not presently operating. Fifty percent of its activity is now in La Paz and 25 percent in Santa Cruz, where it has been established for only two years.

BISA has been designated as the channel for an IBRD loan of US\$ 2.05 million to SSI in the La Paz area, this being a component of IBRD's new US\$ 22.5 million Urban Development Project for La Paz. SSI is herein defined as business with a paid-in capital of less than US\$ 20,000 equivalent. IBRD estimates that about 140 small-scale enterprises will benefit from this loan, assuming the average loan requirement is about US\$ 17,500. Terms will be 5 to 8 years plus up to 3 years of grace. The interest rate on these loans will be 12 percent p.a. plus up to 6 additional points depending on the assessed risks or appraisal work required. A relatively high spread is needed to cover the administrative costs associated with this type of loan, for additional feasibility studies, and to allow for possible bad debts. A special appraisal unit will be set up within BISA for the selection, monitoring and supervision of the small firms that are expected to seek credit under this scheme. BISA is expected to give assistance in financial and cost accounting to borrowers under the programme.

BISA is respected as a highly professional institution, well-managed, well-organized and efficient in its operations. It is a major domestic source of medium and long-term financing for industry and mining. However, it is unable to satisfy the fast growing demands of private industry. It has been criticized for neglecting promotional activity, particularly in outlying areas of the country and particularly among small companies. Especially in Santa Cruz, where all BISA's loans have been channelled through local commercial banks, BISA is thought to be weak in its promotional work and slow in satisfying local needs. For that reason, local business groups in Santa Cruz, including the Regional Development Authority, are planning to establish their own development bank (see section on 3.4.3.5). At the same time, the commercial banks in Santa Cruz are not satisfied to earn only 3 percent as intermediaries

for loans originating with BISA, believing this to be inadequate compensation for the many problems inherent in the collection and supervision of these loans.

Backed by the international financial community and enjoying a reputation for professionalism, BISA is expected to continue to play a very important role in lending to industry and mining, including ever-increasing attention to SSU.

5.4.3.2.

BANCO DE FINANCIAMIENTO INDUSTRIAL S.A. (BAFINSA)

In November 1974 a private financial institution, known as Banco de Financiamiento Industrial S.A. (BAFINSA) was formed in Oruro by a number of small mining companies. Its headquarters was moved to La Paz in February 1977. BAFINSA now has 1,070 Bolivian shareholders, most of them mining companies, and 30 together have a controlling interest. BAFINSA's paid-in capital is US\$ 1.2 million equivalent. Employees number 12, of which 7 are in La Paz and 5 in Oruro.

BAFINSA's policy is to extend short and medium-term credit up to 5 years to industry and mining. As with all non-commercial banks, BAFINSA is not allowed to accept deposits of any kind. It concentrates on export financing for mining companies. Subsequent to criticism for granting loans to its own shareholders, BAFINSA adopted a rule of not lending to any company in which a shareholder of BAFINSA has an interest greater than 20 percent. It intends to assist borrowers in project preparation, but very little of this has been done thus far. BAFINSA plans to maintain leverage at 5 to 1, and to increase its paid-in capital to US\$ 1.5 million equivalent in the near future. Local resources are its own capital plus lines of credit from the Central Bank. Other sources of funds are lines of credit from U.S. banks, particularly Citybank and Banco de Boston.

BAFINSA's maximum term for fixed asset loans is 5 years, and for working capital loans 12 to 18 months. As with commercial banks, the interest rate for local currency loans to industry is 16 percent p.a. The spread on loans from foreign sources is between 2 and 3 percent. The maximum loan granted is US\$ 100,000 equivalent and the minimum US\$ 25,000 equivalent. Borrowers are expected to maintain a debt/equity ratio no greater than 1:1. Preferred security arrangements are mortgages

on real estate (but not on plant and equipment), and also the assignment of sales proceeds.

Theoretically, the resources of this financial institution could be made available to SSI but it is doubtful that this will occur due to the administrative problems and expense involved in lending to SSI and BAPINSA's limitations in respect to personnel for evaluating and supervising loans. In the opinion of BAPINSA's management, very little reliance can be placed on the official financial statements of small companies, and cash flow projections must be made for every case. At the same time, BAPINSA is of the opinion that SSI are highly profitable, the average rate of return on invested capital being in the neighbourhood of 30 percent. This largely coincides with the mission's findings.

### 3.4.3.3. BANCO DE INVERSION BOLIVIANO S.A. (BIBSA)

Founded in September 1977, BIBSA is Bolivia's newest specialized banking institution. Its five shareholders are all in the private sector. One is a holding company that was formed to purchase the Bolivian interests of W.R. Grace and Co.; another is Bolivia's largest private mining corporation. Eighty percent of the equity is owned by Bolivians, the balance by a Canadian national. BIBSA's paid-in capital is US\$ 1 million equivalent, to be increased to US\$ 1.5 million equivalent by September 1978. BIBSA plans to build up its resources to US\$ 25 million equivalent over the next 5 years, depending largely on the support of the U.S. banking community. Lines of credit have already been established with American Express, Manufacturers Hanover, Wells Fargo, Continental Illinois, First National of Dallas and Dow Banking Corporation of Switzerland, among others. Leverage is planned at about 9 times paid-in capital including contingent liabilities. The intention is to have a lending mix of 2/3 at 2 to 5 years and 1/3 at short-term. Total lending commitments for 1977 were expected to be between US\$ 5 and 6 million equivalent. BIBSA has 8 full time employees, 5 of whom are professionals.

BIBSA's policy is to concentrate on short and medium-term dollar loans to the productive sector, defined as agriculture, ranching, industry, mining and tourism. Short-term credit will be extended to cover working capital needs, medium-term for financing

industrial machinery and new plants. It is also allowed to take equity, and is considering doing so in lieu of fees which it would otherwise charge for its services. BIBSA also hopes to place a number of large Government and private sector borrowings with international banks.

On short-term loans the nominal interest rate charged is 15 percent p.a., the effective rate considering front-end fees and stamp taxes amounting to about 20 percent p.a. The terms for long-term lending vary according to the foreign source of funds, with a spread of 3 to 4 percent p.a. over the cost. Maturities must not exceed 5 years inasmuch as this is the maximum term for funds obtained by BIBSA from foreign commercial banks for on-lending. BIBSA's statutes prohibit lending more than 20 percent of its capital to a single client. Security requirements are a first mortgage as well as personal guarantees of the borrower, particularly in the case of small and relatively unknown borrowers.

According to BIBSA's management, the mission's definition of SSI does not embrace companies that are among its clients. Not one of the companies in its present portfolio of loans totalling approximately US\$ 1 million equivalent would qualify as SSI, all being relatively large enterprises. BIBSA would not be interested in lending to SSI because of the high work input required. If such loans were made, BIBSA would charge a loan supervision fee to compensate for the extra time and effort involved.

3.4.3.4.

CORPORACION FINANCIERA DE BOSTON S.A. (FINANCIERA BOSTON)

Financiera Boston, 100 percent owned by the Boston Overseas Financial Corporation, was opened in La Paz in June 1975 in connection with obtaining approval for the establishment of the Banco de Boston as a commercial bank. Financiera Boston's paid-in capital is US\$ 1.5 million equivalent. The staff at its only office in La Paz includes 5 professionals for project analysis.

Financiera Boston has been engaged mostly in medium-term project financing for up to 5 years for industry and agriculture. In 2½ years of operations it has financed a total of 43 projects for approximately US\$ 13 million equivalent. Very few of these would qualify as SSI under our definition. Two-thirds of the loans have been for new projects and one third for expansions. Only 3 were



short-term loans for working capital. The average loan size is US\$ 350,000 equivalent, and the average term is 28 months. Its main source of funds is Eurodollar loans from the parent company, and all sub-loans have been in foreign exchange with the exchange risk to the borrower. The interest rate is LIPOR plus 2 to 3 percent p.a., which averages out to about 13 percent p.a. Arrears are not significant, and there has been only one default out of the 43 loans. Clients represent geographically 7 out of the 9 departments in Bolivia.

According to Financiera Boston's management, the net spread is about 3.5 percent, and it is just breaking even. Since its affiliated company, the Banco de Boston, is engaged in similar lending activities, the two companies plan to merge as soon as the Bolivian authorities grant permission to do so.

3.4.3.5.

CORPORACION FINANCIERA DE SANTA CRUZ S.A. (COFINSA)

A private development bank for medium and long-term loans to industry and agriculture is in the process of formation in the Department of Santa Cruz. Principal sponsors are the Regional Development Authority <sup>1/</sup> and the Banco de Santa Cruz de la Sierra, which is Bolivia's largest private commercial bank. COFINSA is a priority project for the Regional Development Authority, which finances this and other projects through a royalty of 11 percent which it receives on the market value of all natural gas and petroleum produced in the Department of Santa Cruz. The Regional Development Authority will be a 20 percent shareholder in COFINSA, and in addition plans to provide a loan of US\$ 5 million equivalent under quasi-equity terms.

In addition to lending medium and long-term, COFINSA intends to underwrite securities, issue marketable paper, issue guarantees and letters of credit and finance feasibility studies. It does not intend to engage in commercial banking activities or make equity investments. COFINSA's initial paid-in capital will be US\$ 1.0 million equivalent, to be increased to US\$ 2.5 million equivalent within 5 years. It intends to seek loans from the World Bank among others, and plans to secure financial resources totalling

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<sup>1/</sup> Comité de Obras Públicas de Santa Cruz.

US\$ 17.5 million equivalent by the fifth year of operations. The sponsors intend that COPINSA should eventually operate nationally and not be limited to the Santa Cruz area.

Santa Cruz businessmen are dissatisfied with the paucity of assistance they receive from Government institutions and from BISA and for that reason are creating this new institution to cope with the shortage of financing for investment projects. COPINSA's sponsors estimate that the shortage of such financing for all projects in the Santa Cruz area will amount to about US\$ 25 million equivalent per year over the next 5 years.

3.4.3.6.

CORPORACION FINANCIERA DEL SUR (CODESUR)

The Departmental Development Corporations of Tarija, Potosi and Sucre are actively promoting the creation of CODESUR as a regional financial corporation with practically the same objectives as COPINSA. A consulting firm, hired by the three corporations, has prepared a feasibility study for CODESUR, and negotiations with the Central Government in La Paz are underway in order to obtain legal authorization and financial support for the new organization.

3.4.3.7.

BOLIVIAN DEVELOPMENT FOUNDATION (FBD)

FBD is a private, non-profit institution founded in July 1971. It belongs to the Council of American Development Foundations, which was created in Santo Domingo in 1972 for the purpose of channelling private resources and capital assistance to Latin American countries. The FBD has distinctly social objectives while working in the financial, technical, educational and cultural fields. As a non-profit organization, it receives tax-free status from the Bolivian Government. FBD operates with a very small budget. Since inception it has had less than US\$ 100,000 for on-lending to eligible borrowers. The organization has only 5 employees, all based in La Paz, but it has plans to open centers in Cochabamba, Santa Cruz and Tarija, where it will organize technical assistance to serve those who benefit from FBD loans.

Sources of finance have thus far been contributions from private persons and organizations, a loan from the Panamerican Development Foundation, contributions from the National Chamber of Industries, donations from USAID, the proceeds from public health activities, and funds provided by BISA for small industries and handicrafts. These

altogether financed 27 loans totalling US\$ 97,500 equivalent between 1974 and 1977. Fifty percent of these by value went to small businesses and artisans for a total of 18 loans with an average size of US\$ 2,700 equivalent. Repayment periods varied from 1 to 3 years and interest rates from 8 to 14 percent p.a. Due to lack of funds there has been no further lending activity for the past 8 months.

The average interest spread to FBD has been 2 percent, which is insufficient to cover costs. Twenty percent of the loans have been in arrears and in need of rescheduling. The general policy has been not to require guarantees.

FBD has a plan to create a service unit to provide technical assistance to borrowers. Help will be given in teaching techniques of production, administration and commercialization, internal organization and accounting, and techniques related to credit. For this service, FBD is considering charging a commission of 1 percent flat on all loans.

With its limited resources, both in respect to finance and personnel, FBD can only operate on a very small scale. It is in continuous need of soft loans and grants. Because of its social orientation, however, it has been recommended by the Corporación Andina de Fomento (CAF) as an organization that could be expanded to play a more important role in lending to SSI.

#### CONCLUSIONS AND RECOMMENDATIONS

For Bolivia, SSI is of major importance as a source of employment, a means to promote industrialization, and an opportunity for the formation of skilled labour and experienced entrepreneurs and managers. In addition, the promotion of SSI could complement ongoing programmes for developing rural areas and improving the economic conditions of the urban poor. In conclusion, Bolivia must develop a modern and healthy SSI sector as a basis for the successful economic and sound social development of the country.

Despite the apparent profitability of most SSI, the possibilities for further growth and modernization are limited under existing conditions. The mission therefore recommends that the Government

provide specific fiscal incentives and financial and technical assistance to SSI in order to improve the quality of management and the efficiency of operations. Such efforts must be complemented by a more positive attitude on the part of the Government towards the small entrepreneur, who at present feels alienated from public institutions.

In order to achieve the above-mentioned goals, the mission offers the following suggestions:

4.1

#### RECOMMENDATIONS REGARDING FINANCE

The few existing credit facilities dealing with SSI are costly and restrictive. The relatively high cost of credit to SSI is of less concern to the entrepreneurs than are the short maturities, excessive collateral requirements, and complicated and lengthy application procedures. Considering the fact that small-scale industrialists are largely unaware of the benefits to be gained from credit utilization and that project preparation is a major problem for them, it is apparent that technical assistance is needed along with financial assistance.

SSI's past experience in receiving a relatively minor allocation of loans from FRI resources and in obtaining little assistance from commercial and specialized banks leads the mission to propose a package of measures for a new line of credit especially for SSI. This package includes the following three complementary measures:

- a) Creation of a special credit line for SSI
  - b) Creation of a guarantee fund
  - c) Provision of special assistance for the preparation of credit applications and applications for Government incentives.
- a) Creation of a special line of credit for SSI

The proposed line of credit should cover both fixed investment and permanent working capital. The mission estimates that 80 percent of the total future financial requirements of SSI can be covered by internal cash generation and by other credit facilities presently available to SSI. As described in Section 2.3, investment by SSI for replacement and expansion of fixed assets is predicted to be about

US\$ 20 million annually. The need for a new source of financing, conservatively estimated at 20 percent of the total requirement, is therefore US\$ 4 million per year. Assuming that the entire credit is to be disbursed over a 5-year period and subsequently revolved, the total amount of new financing required would be roughly US\$ 20 million.

The needs for permanent working capital are estimated as follows: Annual sales of SSI are in the order of US\$ 300 million equivalent (see Table 4 of Statistical Annex 7). Assuming that the working capital requirement is equivalent to about two months' sales, or US\$ 50 million equivalent, and that the need for a new source of funds amounts to one-fifth of this amount, then a sum of about US\$ 10 million should be earmarked for permanent working capital.

It is therefore recommended that the total amount of a new line of credit for SSI be fixed at about US\$ 30 million. Based upon the mission's observations, the organization best equipped to administer such a special line of credit, including appraisal and supervision, is the Government-owned Banco del Estado (BANESPA). As described in Section 3.4.1.3, this choice is based upon BANESPA's past experience and demonstrated capability. Less desirable alternatives could be the Corporación Boliviano de Fomento or the Central Bank utilizing, in the case of the latter, the entire commercial banking system.

b) Creation of a guarantee fund, along the lines of the system that is being organized by the Central Bank with USAID support, in order to reduce the risk factor. In the opinion of the mission, this is a sound programme filling a very important need to make credit facilities available to companies or persons that lack sufficient collateral.

In its presently proposed pilot project form, the Central Bank's credit guarantee programme will be limited to special types of SSI in rural areas. In the mission's experience, however, most SSI are located in urban areas and will therefore be excluded from the guarantee scheme. By increasing the financial support to the guarantee fund, the coverage could be extended so that all sub-sectors of SSI in all locations would benefit from easier collateral arrangements. The Central Bank and USAID have pledged to support the guarantee fund to the extent of US\$ 3.75 million.

The mission proposes that initially this amount be doubled through participation by other institutions so that loans to a substantial number of urban SSI could be covered in the pilot programme.

c) Provision of special assistance for the preparation of credit applications and applications for fiscal incentives. In the opinion of the mission, this assistance should come from an institution outside the banking system, thus separating the cost of such assistance from the cost of money. These services should be free of charge or at most carry a nominal fee. The Government should be encouraged to absorb a portion of the cost as promotional assistance to SSI.

The existing organization which, in the opinion of the mission, would be best prepared to provide this type of assistance is INBOPIA. INBOPIA is an autonomous public sector entity, whose mandate even now is the providing of technical assistance programmes aimed at increasing productivity of SSI. There would be an advantage in terms of objectivity in having a neutral agency such as INBOPIA assist in preparing credit applications, which would then be acted upon by the institution or institutions administering the credits.

## RECOMMENDATIONS REGARDING TECHNICAL ASSISTANCE

In addition to assistance to SSI in preparing credit and incentive applications, the need for technical assistance in matters of accounting, financial management, and commercialization was amply documented in the course of the mission's interviews with 94 companies. An initial sum of at least US\$ 500,000 (equivalent to 10 man/years) is suggested for a technical assistance fund aimed at alleviating some of the problems caused by lack of basic business knowledge.

Once again, INDOPIA is considered by the mission as the most appropriate institution, which, after a thorough review and possible revision of its present policies, organization and staffing, could channel technical assistance and extension services to SSI. This technical assistance should concentrate on the following areas:

- i) Informing SSI of incentives and sources of financial and technical assistance.
- ii) Preparing applications for credit and/or Government fiscal incentives.

- iii) Providing extension services, especially in the fields of financial management (general, cost and cash accounting), industrial management (product design, quality control, materials balance and flow, production techniques, industrial safety and plant maintenance and repair), and operational management (procurement, commercialization, and market research).
- iv) Identifying investment projects and preparing market and feasibility studies.

It is obvious that Government financial support to INNOPIA should be substantially increased before this institution can be entrusted with carrying out an effective technical assistance programme. International assistance to provide foreign expertise, train professional staff, and supply equipment to INNOPIA would also be desirable.

Alternatively, technical assistance could be administered by the Banco del Estado, in conjunction with administering a lending programme, although probably not without some significant restructuring of that organization. It could also be administered by the Central Bank, utilizing the same facilities as exist within the new lending programme for agribusiness and artisanry. The Bolivian Development Foundation already has plans for a business advisory assistance programme on a limited scale, and this could be expanded. Such assistance could also be administered by or through the semi-autonomous regional development corporations, such as CORDEPAZ and CORDECO. These organizations are already giving financial and technical assistance to small farmers and, at least as expressed by CORDEPAZ, would welcome the opportunity to extend this aid to small businesses in rural areas.

The mission advocates the creation of independent management centers, similar to those existing in other Latin American countries. These centers could be established with Government grants in the beginning and could later cover a major part of their operating costs through training fees. For SSI entrepreneurs, training fees could be nominal. Seminars for SSI should be carefully designed to cover basic knowledge of management, administration, production techniques, and commercialization. They should have a practical orientation in order to complement the accumulated experience of small industrialists.

RECOMMENDATIONS REGARDING THE LEGAL AND ADMINISTRATIVE FRAMEWORK

In order further to strengthen SSI, the matter of official policy should be reviewed and legislation amended. In particular, the mission recommends the following:

- a) Preparing a development plan for SSI, in which policies, strategies and targets are clearly defined. The impact on SSI of large projects in the industrial sector as well as in other sectors of the economy, such as agriculture, education, health and transport, should be considered for determining priority activities for SSI. Programmes such as the one linked to the automotive industry of the Andean Group will create a number of possibilities to provide components and services through SSI. International organizations should be in a position to assist in preparing such plans.
- b) Improving existing legislation through the amendment of existing investment incentives or the issuance of a special law for SSI. New legislation should cover existing as well as new enterprises. The incentives that are the most urgently needed and which should be readily attainable are:
  - i) Exemption of customs duties on imported equipment and raw materials.
  - ii) Income tax reductions in case of reinvestment of profit, either in the same company that generated the profit or in other existing or new enterprises.
  - iii) Export incentives.

Regulations concerning the availability of financial and technical assistance should be included in this legislation.



BOLIVIA

**POPULATION: PAST AND FUTURE DEVELOPMENT**  
**ESTIMATED ON THE BASIS OF THE 1976 NATIONAL CENSUS OF POPULATION AND HOUSING**  
 (THOUSANDS OF PERSONS)

|  | 1970    | 1971    | 1972    | 1973    | 1974    | 1975    | 1977    | 1978    | 1979    | 1980    |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>POPULATION</b>                          | 2,052.6 | 2,114.4 | 2,171.5 | 2,230.2 | 2,290.4 | 2,352.2 | 2,415.2 | 2,484.6 | 2,554.1 | 2,624.6 |
| LA PAZ                                     | 1,259.1 | 1,293.1 | 1,328.0 | 1,363.9 | 1,400.7 | 1,438.5 | 1,478.1 | 1,515.5 | 1,552.0 | 1,590.7 |
| URBAN                                      | 263.7   | 270.8   | 278.1   | 285.6   | 293.3   | 301.2   | 309.5   | 318.2   | 327.1   | 336.3   |
| RURAL                                      | 536.4   | 550.5   | 559.4   | 580.7   | 596.4   | 612.5   | 629.3   | 646.9   | 665.0   | 683.6   |
| PERCENT                                    | 12.6    | 12.8    | 12.8    | 12.9    | 12.9    | 13.0    | 13.1    | 13.2    | 13.2    | 13.3    |
| COCHABAMBA                                 | 299.6   | 307.7   | 316.0   | 324.5   | 333.3   | 342.3   | 351.7   | 361.5   | 371.6   | 382.0   |
| SUCRE                                      | 645.7   | 652.1   | 658.0   | 669.4   | 678.3   | 687.7   | 698.0   | 709.2   | 721.0   | 733.4   |
| TRIPOLI                                    | 143.5   | 147.4   | 151.4   | 155.5   | 159.7   | 164.0   | 168.5   | 173.2   | 178.0   | 183.2   |
| OTHER                                      | 700.6   | 721.0   | 741.2   | 762.0   | 782.4   | 803.4   | 824.2   | 845.8   | 867.2   | 889.2   |
| SANTA CRUZ                                 | 624.0   | 640.8   | 658.1   | 675.9   | 694.1   | 712.8   | 732.4   | 752.9   | 774.0   | 795.7   |
| ORURO                                      | 136.0   | 139.7   | 143.5   | 147.4   | 151.4   | 155.5   | 159.8   | 164.3   | 168.9   | 173.5   |
| PLUMB (incl. without specification resid.) | 39.6    | 40.5    | 41.6    | 42.7    | 43.9    | 45.1    | 46.3    | 47.6    | 48.9    | 50.3    |
| POPULATION GROWTH                          | 1,027.4 | 1,053.6 | 1,081.1 | 1,109.5 | 1,139.1 | 1,169.6 | 1,201.0 | 1,233.3 | 1,266.5 | 1,300.7 |
| URBAN                                      | 51.2    | 52.1    | 53.0    | 54.0    | 55.0    | 56.1    | 57.2    | 58.3    | 59.4    | 60.5    |

Source: Censo Nacional de Poblacion y Vivienda 1976 "Resultados Anticipados Cuatros" Republica de Bolivia, Ministerio de Planeamiento y Coordinacion, Instituto Nacional de Estadistica, Page 26, Table 4.

Notes: Average annual growth rate of population is estimated at 2.7% during 1965-1975 and at 2.6% during 1976-1980. According to the Plan of Economic and Social Development: 1975 - 1980 - Bureau - (pages 122 and 126) published by Republica de Bolivia, Ministerio de Planeamiento y Coordinacion de la Presidencia de la Republica.

The 1975-1976 growth rate has been estimated at 2.75% by the mission.

**COSTA RICA**

LABOUR FORCE IN URBAN AND RURAL AREAS: PAST AND FUTURE DEVELOPMENTS  
ESTIMATES BASED ON THE 1974 NATIONAL CENSUS OF POPULATION AND HOUSING

(THOUSANDS OF PERSONS)

| REGION AND DEPARTMENT | 1970  |       | 1972  |       | 1974  |       | 1976 <sup>1/2</sup> |       | 1978  |       | 1980  |       |
|-----------------------|-------|-------|-------|-------|-------|-------|---------------------|-------|-------|-------|-------|-------|
|                       | URBAN | RURAL | URBAN | RURAL | URBAN | RURAL | URBAN               | RURAL | URBAN | RURAL | URBAN | RURAL |
| <b>TOTAL</b>          | 342.0 | 213.6 | 361.2 | 311.5 | 392.2 | 334.2 | 405.1               | 322.2 | 428.2 | 452.2 | 453.2 | 482.2 |
| LA PAZ                | 224.6 | 174.3 | 237.4 | 184.2 | 251.2 | 198.0 | 265.8               | 216.1 | 281.2 | 282.6 | 297.3 | 311.2 |
| GUAYMAS               | 33.7  | 30.0  | 36.8  | 31.7  | 60.1  | 34.1  | 63.6                | 37.1  | 67.3  | 39.3  | 71.2  | 67.1  |
| POCARI                | 63.9  | 109.3 | 67.6  | 115.6 | 71.5  | 122.3 | 75.7                | 129.4 | 80.1  | 136.9 | 94.7  | 142.1 |
| <b>TOTAL</b>          | 143.2 | 207.2 | 152.3 | 212.2 | 161.2 | 232.6 | 170.5               | 246.2 | 176.3 | 250.5 | 255.7 | 272.2 |
| GENERALA              | 26.8  | 70.1  | 28.3  | 74.1  | 30.0  | 78.4  | 31.7                | 83.0  | 33.5  | 87.8  | 35.5  | 92.1  |
| SANTARUCIA            | 96.8  | 111.8 | 102.5 | 118.3 | 108.4 | 125.1 | 114.7               | 132.4 | 117.7 | 140.1 | 124.2 | 132.2 |
| PARITA                | 20.3  | 26.0  | 21.5  | 27.5  | 22.8  | 28.1  | 24.1                | 30.2  | 25.5  | 32.6  | 27.0  | 34.1  |
| <b>TOTAL</b>          | 157.2 | 221.1 | 167.0 | 225.2 | 176.7 | 241.4 | 187.0               | 242.0 | 195.5 | 225.9 | 225.6 | 242.2 |
| SANTA CRUZ            | 130.3 | 71.3  | 137.8 | 75.55 | 145.8 | 79.9  | 152.3               | 84.5  | 162.2 | 89.4  | 170.5 | 94.1  |
| LEON                  | 25.2  | 18.0  | 26.6  | 19.0  | 28.2  | 20.4  | 29.8                | 22.3  | 31.3  | 23.6  | 32.9  | 25.1  |
| PARO                  | 2.4   | 9.3   | 2.6   | 10.4  | 2.7   | 11.1  | 2.9                 | 12.2  | 3.0   | 12.9  | 3.2   | 13.1  |
| <b>TOTAL</b>          | 643.8 | 620.6 | 681.1 | 655.3 | 720.7 | 698.2 | 755.7               | 727.8 | 801.4 | 791.2 | 826.7 | 811.2 |

<sup>1/2</sup> This information is based on data indicated for "cities and populated centres" in publications "Resultados Provisionales" by departments, published in March 1977 by the Ministerio de Planificación y Coordinación, Instituto Nacional de Estadística.

<sup>2</sup> Minor differences between Tables 3 and 2 are due to rounding.

General Note: Possible differences in population growth between urban and rural areas, between individual Departments or Regions, as well as the influence of migration from rural to urban areas had to be neglected, because reliable information is not available. The average yearly growth rates of the population according to the note on Table 4 have also been applied for the labour force. Possible influences due to changes in the age structure of the population are negligible over such short periods.

BOLIVIA: Shares of Economic Sectors in Gross National Product

| Economic Sectors                      | 1970                       |       | 1972                       |       | 1974                       |       | 1976                       |       |
|---------------------------------------|----------------------------|-------|----------------------------|-------|----------------------------|-------|----------------------------|-------|
|                                       | (10 <sup>6</sup> 1976-\$b) | %     | (10 <sup>6</sup> 1976-\$b) | %     | (10 <sup>6</sup> 1976-\$b) | %     | (10 <sup>6</sup> 1976-\$b) | %     |
| Agriculture                           | 7,748.8                    | 18.6  | 8,353.3                    | 18.1  | 9,061.6                    | 17.3  | 10,006.0                   | 17.0  |
| Mining                                | 3,610.5                    | 8.7   | 4,203.2                    | 9.1   | 4,974.7                    | 9.5   | 4,886.8                    | 8.3   |
| Manufacturing Industry                | 4,965.3                    | 11.9  | 5,559.0                    | 12.0  | 6,496.5                    | 12.4  | 7,370.3                    | 12.5  |
| Civil Construction                    | 1,712.0                    | 4.1   | 1,792.4                    | 3.9   | 1,993.5                    | 3.8   | 2,429.0                    | 4.1   |
| Energy, Transport, Communications     | 3,156.2                    | 7.6   | 3,616.0                    | 7.8   | 4,437.5                    | 8.5   | 5,232.0                    | 8.9   |
| Commerce, Hotels + Restaurants        | 2,639.1                    | 6.3   | 2,866.7                    | 6.3   | 3,345.0                    | 6.4   | 3,771.0                    | 6.5   |
| Other Sectors                         | 11,754.4                   | 28.3  | 13,619.5                   | 29.5  | 16,131.4                   | 30.7  | 17,654.0                   | 29.9  |
| Total Gross National Product          | 41,526.3                   | 100.0 | 46,212.1                   | 100.0 | 52,144.2                   | 100.0 | 58,549.1                   | 100.0 |
| Bilateral growth (%)                  |                            |       | -11.1                      |       | -13.5                      |       | -12.4                      |       |
| Average annual growth (%) (1970-1976) |                            | 6.0   |                            |       |                            |       |                            |       |

Sources: Banco Nacional de Bolivia, National Economic Accounts. Revised and unpublished figures.

**Table 1. Production Value and Value Added by Major Branches of Manufacturing Industry - 1976**  
(Millions of Bolivian Pesos)

| Industrial Branches              | 1970              |              |                |              | 1976              |                 |              |                 | 1970 - 1976       |                       |               |               |
|----------------------------------|-------------------|--------------|----------------|--------------|-------------------|-----------------|--------------|-----------------|-------------------|-----------------------|---------------|---------------|
|                                  | Gross Prod. Value |              | Value Added    |              | Gross Prod. Value |                 | Value Added  |                 | Gross Prod. Value | Change of Value Added |               |               |
|                                  | \$b               | %            | \$b            | %            | \$b               | %               | \$b          | %               |                   |                       |               |               |
| 31 Food Industry                 | 4,541.8           | 41.1         | 1,639.4        | 33.0         | 36.1              | 7,030.5         | 41.9         | 2,622.5         | 35.6              | 37.3                  | + 54.3        | + 60.0        |
| 32 Textile and Leather           | 3,742.0           | 33.8         | 1,707.9        | 34.4         | 45.6              | 3,640.8         | 21.7         | 1,676.6         | 22.7              | 46.1                  | - 2.7         | - 2.8         |
| 33 Wood and Furniture            | 347.3             | 3.1          | 149.8          | 3.0          | 43.1              | 544.5           | 3.3          | 233.3           | 3.2               | 42.8                  | + 36.8        | + 55.7        |
| 34 Paper and Printing            | 157.6             | 1.4          | 62.1           | 1.3          | 39.4              | 339.5           | 2.0          | 135.1           | 1.8               | 39.8                  | + 213.4       | + 217.6       |
| 35 Chemical Industry             | 1,329.9           | 12.6         | 954.0          | 19.2         | 69.7              | 2,531.8         | 15.1         | 1,722.3         | 23.4              | 66.0                  | + 82.3        | + 80.5        |
| 36 Ceramic Industry              | 406.1             | 3.7          | 240.8          | 4.9          | 59.3              | 779.5           | 4.6          | 463.5           | 6.3               | 59.5                  | + 91.9        | + 92.5        |
| 37 Iron/Steel-Non-ferrous Metals | 17.2              | 0.1          | 5.3            | 0.1          | 30.8              | 1,014.1         | 6.0          | 326.8           | 1.7               | 12.5                  | + 9965.3      | + 2392.5      |
| 38 Mechanical + Elec. Eng.       | 139.5             | 1.3          | 61.6           | 1.2          | 44.2              | 415.3           | 2.5          | 176.1           | 2.4               | 42.9                  | + 197.7       | + 189.1       |
| 39 Other Manuf. Industries       | 322.3             | 2.9          | 144.5          | 2.9          | 44.8              | 428.8           | 2.9          | 211.9           | 2.9               | 43.4                  | + 51.7        | + 46.6        |
| <b>Total</b>                     | <b>11,062.7</b>   | <b>100.0</b> | <b>4,955.4</b> | <b>100.0</b> | <b>44.9</b>       | <b>16,784.8</b> | <b>100.0</b> | <b>77,370.1</b> | <b>100.0</b>      | <b>43.9</b>           | <b>+ 51.7</b> | <b>+ 43.4</b> |

Source: Banco Nacional de Bolivia, Nacional Economic Accounts, Revised, and unpublished figures.

BOLESLAW: THE URBAN LABOUR FORCE IN 1976

TABLE 1: URBAN LABOUR GROUPS

|  | <u>Persons ('000)</u> | <u>Share in Total (%)</u> |
|--|-----------------------|---------------------------|
| 1. Employees with fixed working hours and regular income                                     | 419.5                 | 55                        |
| 2. Under-employed persons with irregular working hours and fluctuating relatively low income | 236.4                 | 31                        |
| 3. Independent Professionals with relatively high income (lawyers, doctors, etc.)            | 45.8                  | 6                         |
| 4. Unemployed  | 60.6                  | 8                         |
| <b>TOTAL URBAN LABOUR FORCE</b>  | <b>762.7</b>          | <b>100</b>                |

Source: National Institute of Statistics, "Investigation on Employment, September 1977," a sample survey in 4,400 households.

TABLE 2: URBAN EMPLOYMENT BY SECTOR

|   | <u>1970</u>  | <u>1972</u>  | <u>1975</u>  | <u>1976</u><br>( <u>'000 persons</u> )<br>based on 1975<br>distribution |
|---|--------------|--------------|--------------|---|
|   | <u>%</u>     | <u>%</u>     | <u>%</u>     |   |
| Professionals                           | 6.0          | 6.0          | 6.0          | 305.0   |
| Urban unemployment and under-employment | 39.0         | 39.0         | 39.0         |   |
| Urban Employment                        |              |              |              |   |
| Mining and Petroleum                    | 6.0          | 5.8          | 5.5          | 45.8  |
| Manufacturing                           | 12.7         | 12.5         | 12.4         | 103.0   |
| Civil Construction                      | 3.9          | 4.2          | 5.5          | 45.8  |
| Energy, Transport and Communications    | 6.1          | 5.9          | 5.5          | 45.8  |
| Commerce                                | 10.1         | 9.9          | 9.4          | 78.5  |
| Services                                | 16.2         | 16.7         | 16.7         | 138.8   |
| <b>TOTAL URBAN LABOUR FORCE</b>         | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>762.7</b>  |

Source:

1. "Plan de Desarrollo Economico y Social 1976-1980", Volume 1, pp. 129-130.
2. Ministry of Labour, "Estadística Laboral 1970-1975", pp. VIII and Tables 12 and 40.
3. Mission estimates based on the September 1977 investigation on urban employment, existing labour statistics, and recent data on the urban labour force.

**BOLIVIA: EMPLOYMENT ACCORDING TO SIZE OF INDUSTRIAL ENTERPRISE**

| Government<br>Institution<br>Reporting      | Artisanry |      | Small-scale                      |      | Medium and<br>Large Scale |      | Total<br>Employees |       |
|---|-----------|------|----------------------------------|------|---------------------------|------|--------------------|-------|
|   | No.       | %    | No.                              | %    | No.                       | %    | No.                | %     |
| Social Security                             | 1,950     | 7.6  | 7,956                            | 31.0 | 15,756                    | 61.4 | 25,662             | 100.0 |
| Ministry of Labour                          | 1,181     | 5.7  | 4,702                            | 22.7 | 14,831                    | 71.6 | 20,713             | 100.0 |
| INBOPIA                                     | 111,249   | 66.6 | 25,729                           | 15.4 | 30,176                    | 18.0 | 167,154            | 100.0 |
| Ministry of<br>Planning and<br>Coordination | 39,577    | 28.8 | <u>small and medium together</u> |      |                           |      | 137,187            | 100.0 |
|   |           |      | <u>No.</u>                       |      | <u>%</u>                  |      |                    |       |
|   |           |      | 97,610                           |      | 71.2                      |      |                    |       |

**Source:** Information collected by the mission during visits to the following institutions:

1. Social Security: Computer print-out prepared upon request of the mission.
2. Ministry of Labour: Computer print-out showing employment, enterprise, location and industrial activity.
3. INBOPIA: Unpublished report determining parameters for a work programme.
4. Ministry of Planning and Coordination: "1978 Progress Report on the Five Year Plan for Economic and Social Development 1976-1980," page 5, unpublished draft.

STATISTICAL INFORMATION ON ENTERPRISES VISITED NOVEMBER 1977

(AS RECORDED ON QUESTIONNAIRES)

TABLE 1: LOCATION OF ENTERPRISES

| <u>CITY</u>  | <u>TABLE 1: NUMBER OF FIRMS</u> | <u>PERCENT</u> |
|--------------|---------------------------------|----------------|
| La Paz       | 38                              | 48             |
| Cochabamba   | 15                              | 21             |
| Sta. Cruz    | 9                               | 11             |
| Tarija       | 5                               | 6              |
| Oruro        | 5                               | 6              |
| Sucre        | 4                               | 5              |
| Potosi       | 3                               | 3              |
| <b>Total</b> | <u>79</u>                       | <u>100</u>     |

TABLE 2: AGE OF ENTERPRISES

| <u>AGE IN YEARS</u> | <u>NUMBER OF FIRMS</u> | <u>PERCENT</u> |
|---------------------|------------------------|----------------|
| 0 - 3               | 17                     | 21             |
| 3 - 5               | 10                     | 13             |
| 5 - 10              | 12                     | 15             |
| 10 - 20             | 16                     | 20             |
| More than 20        | 24                     | 31             |
| <b>Total</b>        | <u>79</u>              | <u>100</u>     |

Average age: 18 years

MACHINERY AND EQUIPMENT

| <u>US \$ EQUIVALENT</u> | <u>NUMBER OF FIRMS</u> | <u>PERCENT</u> |
|-------------------------|------------------------|----------------|
| Up to 10,000            | 16                     | 20             |
| Up to 20,000            | 13                     | 17             |
| Up to 40,000            | 16                     | 20             |
| Up to 60,000            | 9                      | 11             |
| Up to 80,000            | 9                      | 11             |
| Up to 100,000           | 17                     | 21             |
| Total                   | <u>79</u>              | <u>100</u>     |

Average investment in machinery and equipment US \$ 44,000

TABLE 4: SIZE AS DETERMINED BY ANNUAL SALES (1976)

|                      | <u>NUMBER OF FIRMS</u> | <u>PERCENT</u> |
|----------------------|------------------------|----------------|
| Up to 50,000         | 18                     | 22.8           |
| 50,000 to 100,000    | 20                     | 25.3           |
| 100,000 to 200,000   | 14                     | 17.7           |
| 200,000 to 400,000   | 14                     | 17.7           |
| 400,000 to 600,000   | 7                      | 8.9            |
| 600,000 to 800,000   | 4                      | 5.0            |
| 800,000 to 1,000,000 | 1                      | 1.3            |
| N.A.                 | 1 1/2                  | 1.3            |
|                      | <u>79</u>              | <u>100.0</u>   |

Average annual sales: US\$ 188,000

1/ One company shut down for the entire year due to fire.



| <u>WORKERS</u> | <u>NUMBER OF FIRMS</u> | <u>PERCENT</u>    |
|----------------|------------------------|-------------------|
| 5 through 10   | 20                     | 25                |
| 11 through 15  | 14                     | 18                |
| 16 through 20  | 12                     | 15                |
| 21 through 25  | 9                      | 11                |
| 26 and more    | <u>24</u>              | <u>31</u>         |
| <b>Total</b>   | <u><u>79</u></u>       | <u><u>100</u></u> |

Average number of workers per firm: 21

1/ Excluding owner.

TABLE 6: TYPE OF EMPLOYMENT

|                             | <u>NUMBER OF EMPLOYEES</u> | <u>PERCENT</u>    |
|-----------------------------|----------------------------|-------------------|
| Administrative and Clerical | 116                        | 7                 |
| Skilled workers             | 478                        | 29                |
| Semi-skilled workers        | 631                        | 39                |
| Non-skilled workers         | 413                        | 25                |
| <b>Total</b>                | <u><u>1,638</u></u>        | <u><u>100</u></u> |

Average assets per employee: US \$ 6,700

Average fixed investment in machinery and equipment per employee: US \$ 2,100

Average sales per employee: US \$ 8,950

TABLE 7: TYPE OF INDUSTRIAL ACTIVITY

|                              | <u>NUMBER OF FIRMS</u> | <u>PERCENT</u> |
|------------------------------|------------------------|----------------|
| Food processing              | 12                     | 15.4           |
| Leather and leather products | 11                     | 14.1           |
| Wood and wood products       | 12                     | 15.4           |
| Textiles and wearing apparel | 14                     | 18.0           |
| Metal products               | 13                     | 16.6           |
| Building materials           | 6                      | 7.7            |
| Others                       | 10                     | 12.8           |
| <b>Total</b>                 | <b>78</b>              | <b>100.0</b>   |

TABLE 8: ANNUAL SALES BY INDUSTRIAL ACTIVITY (1976) <sup>1/</sup>

|                              | <u>US \$ 000</u>            | <u>PERCENT</u> |
|------------------------------|-----------------------------|----------------|
| Food processing              | 3,778                       | 25.8           |
| Leather and leather products | 2,101                       | 14.4           |
| Wood and wood products       | 1,527                       | 10.4           |
| Textiles and wearing apparel | 2,494                       | 17.0           |
| Metal products               | 1,084                       | 7.4            |
| Building materials           | 1,336                       | 9.1            |
| Others                       | 2,333                       | 15.9           |
| <b>Total</b>                 | <b>14,653 <sup>2/</sup></b> | <b>100.0</b>   |

<sup>1/</sup> Based on data from 78 firms.

<sup>2/</sup> Includes exports, mainly leather products, wearing apparel, and handicrafts, for a value of approximately US \$ 405,200 equivalent (2.8 per cent of total sales.)

TABLE 9: TECHNICAL EVALUATION OF SSI OPERATIONS BASED ON VISUAL INSPECTION

|                             | PLANT<br>LAY-OUT | MATERIALS<br>HANDLING | MACHINERY and<br>EQUIPMENT | PROCESS<br>TECHNOLOGY | CAPACITY<br>UTILIZATION | RAW MATERIAL<br>UTILIZATION |
|-----------------------------|------------------|-----------------------|----------------------------|-----------------------|-------------------------|-----------------------------|
|                             | %                | %                     | %                          | %                     | %                       | %                           |
| GOOD                        | 9                | 16                    | 18                         | 24                    | 19                      | 14                          |
| SATISFACTORY                | 26               | 43                    | 44                         | 48                    | 23                      | 52                          |
| SUB-STANDARD                | 51               | 27                    | 24                         | 18                    | 53                      | 20                          |
| NOT EVALUATED <sup>1/</sup> | 14               | 14                    | 14                         | 10                    | 5                       | 14                          |
|                             | <u>100</u>       | <u>100</u>            | <u>100</u>                 | <u>100</u>            | <u>100</u>              | <u>100</u>                  |

<sup>1/</sup> NOTE: This corresponds to companies where the production facilities were located on premises far from administrative offices and therefore impossible to visit during time allotted for interview.

<sup>2/</sup> For capacity utilization, good equals greater than 90%, satisfactory 60%-90%, sub-standard less than 60%.

| <u>SALES MARKET</u>  | <u>NUMBER OF FIRMS</u> | <u>PERCENT</u>    |
|--|------------------------|-------------------|
| Excessive competition from large industries and/or artisans  | 6                      | 5                 |
| Insufficient demand  | 24                     | 18                |
| Competition from contraband                                  | 8                      | 6                 |
| Excessive down-time due to excessive product diversification | 2                      | 2                 |
| Low quality of product and design                            | 1                      | 1                 |
| <br><u>RAW MATERIALS</u>                                     |                        |                   |
| Insufficient supply  | 8                      | 6                 |
| Excessive cost   | 3                      | 2                 |
| Low quality  | 5                      | 4                 |
| <br><u>TECHNICAL ASPECTS</u>                                 |                        |                   |
| Frequent breakdowns  | 5                      | 4                 |
| Production bottlenecks                                       | 15                     | 12                |
| Inability to operate machinery                               | 3                      | 2                 |
| <br><u>FINANCIAL PROBLEMS</u>                                |                        |                   |
| High production cost   | 3                      | 2                 |
| Lack of working capital                                      | 28                     | 22                |
| <br><u>LABOUR</u>  |                        |                   |
| Unreliability and low-productivity                           | 3                      | 2                 |
| Lack of skilled labour                                       | 8                      | 6                 |
| <br><u>INFRASTRUCTURE</u>                                    |                        |                   |
| High transportation costs                                    | 5                      | 4                 |
| Lack of transport facilities                                 | 3                      | 2                 |
| <b>TOTAL NUMBER OF EXPLANATIONS</b>                          | <b><u>130</u></b>      | <b><u>100</u></b> |

**TABLE 11: PROJECTS FOR EXPANSION AND DIVERSIFICATION**

**(IN THOUSAND U.S. DOLLARS)**

|                            | NUMBER<br>OF<br>PROJECTS | FIXED            |                | PERCENT OF<br>TOTAL FIXED<br>INVESTMENT |
|----------------------------|--------------------------|------------------|----------------|---|
|                            |                          | INVESTMENT       | CREDIT         |   |
| FOOD PROCESSING            | 9                        | 2,245.00         | 1,825.0        | 21.3                                    |
| LEATHER + LEATHER PRODUCTS | 10                       | 1,615.00         | 1,331.0        | 15.3                                    |
| WOOD + WOOD PRODUCTS       | 9                        | 868.90           | 660.9          | 8.3                                     |
| TEXTILES + WEARING APPAREL | 12                       | 2,212.00         | 2,122.80       | 21.0                                    |
| METAL -- PRODUCTS          | 11                       | 2,372.50         | 1,811.5        | 22.6                                    |
| BUILDING MATERIALS         | 5                        | 715.00           | 575.3          | 6.8                                     |
| OTHERS                     | 7                        | 499.30           | 362.8          | 4.2                                     |
| <b>TOTAL</b>               | <b>63</b>                | <b>10,527.70</b> | <b>8,689.3</b> | <b>100.0</b>                            |
| <b>POSITION EXCHANGE</b>   |                          | <b>5,867.70</b>  |                | <b>55.0</b>                             |

BOLIVIA: SMALL SCALE INDUSTRY  
SELECTED FINANCIAL DATA (\*)

1976

|  | La Paz                        | Cochabamba | Santa Cruz | Tarifa                | Sucre   | Potosí  | Oruro   | Total   |
|--|-------------------------------|------------|------------|-----------------------|---------|---------|---------|---------|
| <b>Number of Firms in Sample</b>             | 36                            | 15         | 9          | 5                     | 4       | 3       | 5       | 79      |
| <b>Number of Employees</b>                   |                               |            |            |                       |         |         |         |         |
| Range:                                       | High<br>53                    | 30         | 60         | 62                    | 23      | 21      | 23      | 62      |
| Low  | 5                             | 5          | 5          | 11                    | 11      | 5       | 5       | 5       |
| Average                                      | 21                            | 19         | 27         | 26                    | 18      | 13      | 13      | 21      |
| <b>Total Assets</b>                          |                               |            |            |                       |         |         |         |         |
| Range:                                       | High<br>410,300               | 640,900    | 570,000    | 195,000 <sup>1/</sup> | 534,300 | 133,000 | 134,700 | 640,500 |
| Low  | 8,000                         | 13,750     | 32,900     | 73,000                | 35,000  | 15,510  | 17,200  | 8,000   |
| Average                                      | 113,600                       | 179,360    | 233,530    | 94,300                | 256,970 | 74,950  | 56,730  | 147,100 |
| <b>Investment in Machinery and Equipment</b> |                               |            |            |                       |         |         |         |         |
| Range:                                       | High<br>125,400               | 125,000    | 151,000    | 45,000                | 113,000 | 66,200  | 50,200  | 151,000 |
| Low  | 3,000                         | 12,500     | 2,500      | 12,500                | 9,000   | 8,700   | 6,700   | 3,000   |
| Average                                      | 41,400                        | 59,190     | 51,730     | 29,160                | 47,900  | 33,540  | 24,350  | 44,100  |
| <b>Net Worth</b>                             |                               |            |            |                       |         |         |         |         |
| Range:                                       | High<br>153,950               | 540,500    | 537,500    | 198,000               | 64,930  | 73,000  | 32,000  | 540,500 |
| Low  | 4,000                         | 5,900      | 5,900      | 2,500                 | 5,000   | 15,700  | 2,715   | 4,000   |
| Average                                      | 49,230                        | 139,670    | 176,220    | 59,390                | 31,650  | 47,550  | 19,630  | 75,950  |
| <b>Annual Sales</b>                          |                               |            |            |                       |         |         |         |         |
| Range:                                       | High<br>895,950 <sup>2/</sup> | 600,000    | 763,500    | 373,400               | 115,000 | 253,340 | 93,500  | 895,950 |
| Low  | 10,000                        | 36,000     | 40,000     | 31,500                | 28,750  | 10,700  | 2,420   | 10,000  |
| Average                                      | 160,260                       | 235,770    | 409,500    | 168,350               | 52,150  | 73,500  | 49,670  | 163,000 |

1/ Based on data from 4 firms, 1 not reporting.

2/ Based on data from 37 firms; 1 operated for 2 month period only.

(\*) Data are based on 1976 actual and 1977 estimated figures. Unofficial and therefore more realistic data have been used wherever possible and in preference to official financial statements prepared for the tax authorities.

BOHOTA: SMALL SCALE INDUSTRY  
SELECTED FINANCIAL RATIOS  
1976-1977 (\*)

|  | La Paz   | Cochabamba   | Santa Cruz  | Tuzi   | Score  | Profit  | Current  | Total   |
|--|--|--|---|--|--|---|--|---|
| Number of firms in Sample                    | 36   | 15   | 9   | 5  | 4  | 3   | 2  | 72  |
| Current Ratio                                | 22 firms > 2:1<br>16 firms < 2:1<br>5 firms negative             | 10 firms > 2:1<br>5 firms < 2:1<br>1 firm negative           | 8 firms > 2:1<br>1 firm < 2:1                               | N.A.   | N.A.   | N.A.  | N.A.   | 40 firms > 2:1<br>22 firms < 2:1<br>6 firms negative              |
| Total Debt to Total Assets                   | 11 firms > 50%<br>12 firms < 20%                                 | 1 firm > 50%<br>1 firm < 20%<br>1 firm none                  | 2 firms > 50%<br>4 firms < 20%                              | 1 firm > 50%<br>3 firms < 20%<br>1 firm none               | 1 firm > 50%<br>2 firms < 20%<br>1 firm none               | 1 firm > 50%<br>2 firms < 20%<br>1 firm none                  | no firm > 50%<br>2 firms < 20%<br>2 firms none               | 12 firms > 50%<br>32 firms < 20%<br>3 firms none                  |
| Long-Term Debt to Capital Structure          | 4 firms > 30%<br>30 firms < 20%<br>11 firms none                 | 1 firm > 30%<br>13 firms < 20%<br>9 firms none               | 2 firms > 30%<br>7 firms < 20%<br>5 firms none              | 1 firm > 30%<br>4 firms < 20%<br>4 firms none              | 1 firm > 30%<br>3 firms < 20%<br>3 firms none              | 1 firm > 30%<br>2 firms < 20%<br>2 firms none                 | 1 firm > 30%<br>3 firms < 20%<br>2 firms none                | 13 firms > 30%<br>43 firms < 20%<br>36 firms none                 |
| Gross Earnings <sup>2/</sup> to Total Assets | 10 firms > 20%<br>17 firms < 5%<br>3 firms loss                  | 11 firms > 20%<br>no firm < 5%<br>no losses                  | 9 firms > 20%<br>no firm < 5%<br>no losses                  | 3 firms > 20% <sup>3/</sup><br>1 firm < 5%<br>no losses    | 1 firm > 20%<br>1 firm < 5%<br>no losses                   | 2 firms > 20%<br>no firm < 5%<br>no losses                    | 3 firms > 20%<br>2 firms < 5%<br>1 firm loss                 | 39 firms > 20%<br>21 firms < 5%<br>4 firms loss                   |
| Net Profit to Total Assets                   | 8 firms > 10%<br>10 firms < 5%<br>3 firms loss                   | 14 firms > 10%<br>1 firm < 5%<br>no losses                   | 9 firms > 10%<br>no firm < 5%<br>no losses                  | 2 firms > 10% <sup>4/</sup><br>1 firm < 5%<br>no losses    | no firms > 10%<br>1 firm < 5%<br>no losses                 | no firms > 10%<br>no firms < 5%<br>no losses                  | 2 firms > 10%<br>3 firms < 5%<br>1 firm loss                 | 24 firms > 10%<br>24 firms < 5%<br>1 firm loss                    |
| Net Profit to Net Worth                      | 8 firms > 10%<br>12 firms > 10%<br>16 firms < 5%<br>3 firms loss | 10 firms > 10%<br>14 firms > 10%<br>1 firm < 5%<br>no losses | 8 firms > 10%<br>9 firms > 10%<br>no firm < 5%<br>no losses | 1 firm > 10%<br>3 firms > 10%<br>no firm < 5%<br>no losses | 1 firm > 10%<br>2 firms > 10%<br>no firm < 5%<br>no losses | no firms > 10%<br>no firms > 10%<br>no firm < 5%<br>no losses | 1 firm > 10%<br>2 firms > 10%<br>2 firms < 5%<br>1 firm loss | 28 firms > 10%<br>42 firms > 10%<br>21 firms < 5%<br>5 firms loss |
| Gross Earnings <sup>2/</sup> to Net Sales    | 5 firms > 20%<br>16 firms < 5%<br>3 firms loss                   | 12 firms > 20%<br>1 firm < 5%<br>no losses                   | 5 firms > 20%<br>no firm < 5%<br>no losses                  | 3 firms > 20% <sup>3/</sup><br>no firm < 5%<br>no losses   | 3 firms > 20%<br>no firm < 5%<br>no losses                 | 3 firms > 20%<br>no firm < 5%<br>no losses                    | 2 firms > 20%<br>1 firm < 5%<br>1 firm loss                  | 27 firms > 20%<br>16 firms < 5%<br>4 firms loss                   |
| Net Profit to Net Sales                      | 6 firms > 10%<br>15 firms < 5%<br>3 firms loss                   | 14 firms > 10%<br>1 firm < 5%<br>no losses                   | 9 firms > 10%<br>no firm < 5%<br>no losses                  | 2 firms > 10% <sup>4/</sup><br>no firm < 5%<br>no losses   | 2 firms > 10%<br>no firm < 5%<br>no losses                 | 1 firm > 10%<br>no firm < 5%<br>no losses                     | 2 firms > 10%<br>2 firms < 5%<br>1 firm loss                 | 35 firms > 10%<br>19 firms < 5%<br>4 firms loss                   |

1/ Supporting data obtained only in La Paz, Cochabamba and Santa Cruz — 62 firms total  
2/ Earnings before interest and taxes  
3/ 4 firms reporting; 1 N.A.  
4/ 3 firms reporting; 2 N.A.  
5/ 2 firms reporting; 1 N.A.

(\*) Data are based on 1976 actual and 1977 estimated figures. Unofficial and therefore more realistic data have been used wherever possible and in preference to official financial statements prepared for the tax authorities.

BOLIVIA

BENEFITS AND INCENTIVES GRANTED BY THE LAW OF INVESTMENTS

| BENEFITS AND INCENTIVES   | NEW INDUSTRY   |  |  |                 |                | Existing Industry | Mining | Agriculture, Livestock, Aquaculture, Fisheries                           | Commerce-Tourism | Tourism                   |
|---|--|--|--|-----------------|----------------|-------------------|--------|--|------------------|---------------------------|
|   | First Category   | Second Category  | Third Category   | Fourth Category | Fifth Category |                   |        |  |                  |                           |
| — Exemption from import duties and related additional taxes, except charges for customs warehousing services and consular fees, on machinery and equipment imports; parts imported therewith and vehicles to be used in the process of production (see time—only).            | 100 %  | 100 %  | 100 %  | 100 %           | 100 %          | —                 | 100 %  | 100 %  | 100 %            | 100 %                     |
| — Exemption of custom duties and related additional taxes and surcharges imposed by Decree No. 03400 of Jun 27/68 on imports of raw material and supplies not produced in the country, except customs warehousing services and consular fees.                                 | 100 %<br>7 Years<br>(20% annual reduction during the following 3 years). | 75 %<br>7 Years<br>(Reduction of 30% 30 and 40% during the following 3 years). | 50 %<br>7 Years<br>(50 % annual reduction during the 2 following). | —               | —              | —                 | —      | 100 %<br>7 Years<br>(20% annual reduction during the following 5 years). | —                | 100 %<br>100 %<br>Yes (*) |
| — Refund of customs duties on raw materials and supplies imported and incorporated to the products exported, if this benefit has not been already granted.  | 100 %  | 100 %  | 100 %  | 100 %           | 100 %          | 100 %             | —      | —  | —                | —                         |
| — Tax exemption on transfers of capital and credits either domestic or foreign which have been entirely invested in the approved project.   | Yes  | Yes  | Yes  | Yes             | Yes            | —                 | Yes    | Yes  | Yes              | Yes                       |
| — Exemption of national departmental and municipal taxes and university surcharges on production and sales of manufactured goods exported.  | 100 %  | 100 %  | 100 %  | 100 %           | 100 %          | 100 %             | —      | —  | —                | —                         |
| — Option to adhere to the annual depreciation granted to fixed assets.  | Yes  | Yes  | Yes  | Yes             | Yes            | —                 | Yes    | Yes  | Yes              | Yes                       |
| — 10 years national, departmental and municipal tax exemption on new constructions of the companies except charges on municipal public service. Exemption for one—time only of taxes on real estate incorporated as capital of the Company.                                   | Yes  | Yes  | Yes  | Yes             | Yes            | —                 | Yes    | Yes  | Yes (*)          | Yes                       |
| — Proportional tax exemption on profits, of Bolivian companies that invest such profits for the purchase of new shares issued by companies in which there is foreign capital participation. Such exemption will be granted until national capital participation reaches 51 %. | 100 %  | 100 %  | 100 %  | 100 %           | 100 %          | —                 | 100 %  | 100 %  | 100 %            | 100 %                     |

— In the Departments of Beni, Pando, Chuquisaca, Tarija, and other areas of lesser economic and social development, a 10 years tax exemption on profits and total income derived from an approved investment will be granted.

— Tax preference will be granted temporarily on the basis of technical-economic studies made by the Ministry of Industry and Commerce.

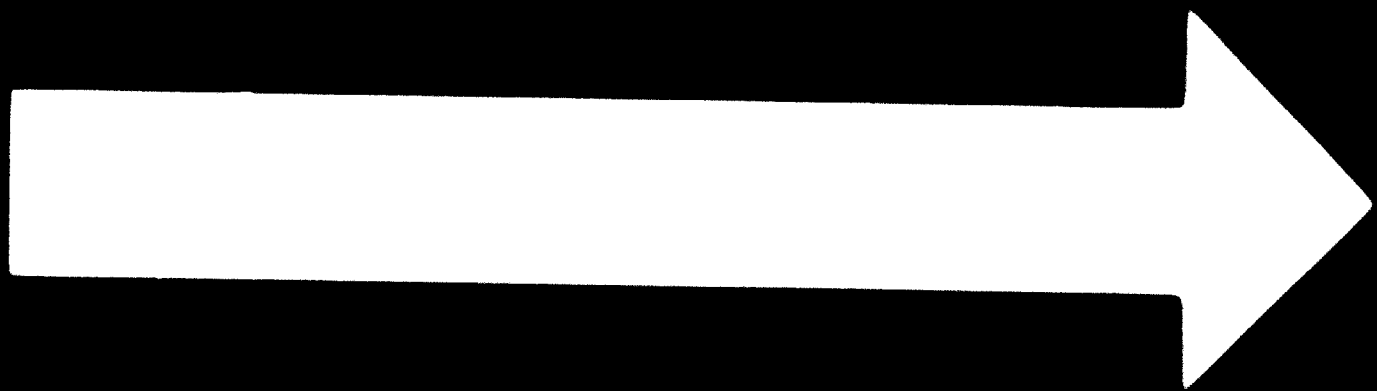
**OTHER BENEFITS NOT RELATED TO TAXATION**

— Land for the establishment of industries will be supplied by the Government, even though they may not be a part of industrial complexes. State owned land concessions for livestock and agriculture development, within legal limitations.

(\*) Subject to special legal provisions.



**F - 674**



**78.11.10**