

INSTITUTIONAL STRENGTHENING OF THE MINISTRY OF
SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL PROTECTION

(BO-0028)

EXECUTIVE SUMMARY

BORROWER: Republic of Bolivia

EXECUTING AGENCY: Ministry of Sustainable Development and Environmental Protection (MDSMA)

AMOUNT AND SOURCE:

| | |
|---------------------|----------------------|
| IDB: | US\$19 million (FSO) |
| Foreign exchange: | US\$10 million |
| Local currency: | US\$ 9 million |
| Local contribution: | US\$ 4 million |
| Total: | US\$23 million |

FINANCIAL TERMS AND CONDITIONS:

| | |
|-----------------------------|---|
| Amortization period: | 40 years |
| Disbursement period: | 3 years |
| Interest rate: | 1% during grace period (10 years); 2% in the following years |
| Inspection and supervision: | 1% of the loan |
| Credit fee: | 0.5% annually on the undisbursed balance |

OBJECTIVES:

The project's general objective is to help the government of Bolivia develop an effective capacity to manage sustainable development.

The project includes the following specific objectives to help achieve the general objective: (i) to strengthen the MDSMA's technical, regulatory, and administrative capacity and establish its presence on the departmental level; (ii) to improve the cartographic and biophysical databases on the country's forest resources and propose ecological and economic zoning for priority watersheds; (iii) to establish a program to monitor and control the quality of the environment and natural resources; (iv) to promote the inclusion of sustainable development concepts in formal and informal education and promote public participation in sustainable development programs; and (v) to evaluate the feasibility of private sector participation in providing certain public environmental services.

DESCRIPTION:

The project comprises technical assistance and training activities. It would be carried out over three years with execution subdivided into annual

stages; at the end of each year, the operations program for the following stage would be defined. The services of international consulting firms, individual consultants, and a group of local technicians (20) would be used, and the latter would gradually be assimilated into the staff of MDSMA and the beneficiary entities at the end of the project through the Civil Service Program. The project has been organized into five components: (i) institutional strengthening; (ii) development of information and decision-making criteria; (iii) control of environmental quality and evaluation of environmental impacts; (iv) promotion of citizen participation in sustainable development; and (v) studies of the feasibility of privatizing three previously-chosen environmental services.

**ENVIRONMENTAL
CLASSIFICATION:**

At its meeting of December 16, 1993, the Environmental Committee classified this as a Category I operation.

BENEFITS:

This operation's benefits will include: (i) an increase in the efficiency of the MDSMA and other beneficiary entities as a result of training for staff, specialized technical assistance, and the application of automated systems; (ii) watershed and forest studies will contribute significant socio-economic and environmental information for greater objectivity in decision making by the government in devising policies and strategies (national, departmental, and local), managing and conserving natural resources, designing and carrying out investments, and holding negotiations with neighboring countries; (iii) the large information base developed through the studies noted above will provide the country with a forest map, a forest monitoring system, a proposal for economic and ecological zoning in the Pilcomayo basin, and a geographic information system linking all these products; (iv) the establishment of an environmental quality monitoring and control system will provide technical background, facilitate regulation of the Environmental Protection Act, and enable the country to promptly identify possible negative impacts of development projects; (v) general awareness of the concept of sustainable development will be increased by educating and informing the public about the role and responsibilities that each person has in environmental matters; and (vi) the possibility of improving the quality and efficiency of environmental services through privatization.

RISKS:

The project's principal risk is whether the MDSMA can sustain the operation in both the short and medium

terms. The ministry's technical and financial resources must be strengthened in the short term so that it can carry out its duties and consolidate its position in the national government. To this end, Bank support will be crucial in facilitating the successful accomplishment of the Ministry's important duties. This consolidation effect will also be useful in ensuring the stability of the new ministry in the medium term when there is a change in the Bolivian government. Accordingly, social communications and consensus-building activities will play a very important role in obtaining the support of Bolivian society in general.

In operations of this kind, the potential lack of financial capacity to shoulder follow-up and maintenance costs after the project is completed is normally identified as a risk. To reduce this risk, the project will require gradually increasing contributions from the local counterpart during its execution.

**THE BANK'S
COUNTRY AND
SECTOR STRATEGY:**

This operation is consistent with the Bank's strategy in Bolivia, which focuses on modernization and reform of the public sector, as well as with the guidelines of Bank's Eighth Replenishment of Resources, which emphasize strengthening the legal and regulatory structure relating to the environment; support for the establishment of efficient environmental institutions; the capacity to conduct environmental evaluations of high technical quality for development projects, with effective participation by the public concerned; and rational administration of natural resources, and protection of the environment.

**SPECIAL
CONTRACTUAL
CONDITIONS:**

As conditions precedent to disbursement of the loan, the Borrower must present the interinstitutional agreement concluded between the executing agency and the Civil Service Program, and the contracts concluded between the executing agency and the consulting firms responsible for the institutional strengthening components, developing the geographic information system, and preparing the forest map and monitoring program and the watershed studies. It must also submit evidence that the administrative and accounting consulting services have begun and that the members of the project coordination unit have been appointed in keeping with the terms agreed upon before hand with the Bank.

The loan agreement will also include an obligation to submit annual progress reports, annual execution plans, audited financial statements, and a mid-term report.

I. FRAME OF REFERENCE

A. Background

1. The country's environmental problems

- 1.1 The sustainability of economic development in Bolivia depends critically on management of its natural resources since a significant part of its productive structure is based on production of fossil fuels, minerals, and agricultural and forest products.
- 1.2 According to the report of the Action Program for Bolivian Forest Development (1991), forests cover 50.8% of the country (about 550,000 km²) and the annual loss of forest is approximately 2,000 km². The greatest ecological impact of deforestation occurs in the Amazonian region. The causes of deforestation are varied, and those that are especially significant are: unplanned human settlements and the advance of the agricultural frontier into productive and protected forest areas; uncontrolled commercial logging; and firewood requirements for energy uses. The most adverse effects of the loss of forest cover include the decrease in natural habitat for different plant and animal species that are an important natural asset to Bolivia and the lack of protection of fragile soils.
- 1.3 Water pollution is another major problem from the environmental standpoint. The chief human activities causing water pollution in Bolivian rural areas are mining and the use of agrochemicals. In urban centers, untreated discharges of sewage into rivers, as well as household, industrial, agroindustrial, and hospital wastes, are the most important causes of bacteriological contamination.
- 1.4 Different studies indicate that between 35% and 41% of Bolivia's land is affected by erosion and degradation. The areas most susceptible to water and wind erosion are in the northern high plateau, river headwaters, Yungas, Chapare, and the Tarija valley. The Food and Agriculture Organization (FAO) estimates that between 20% and 25% of the country is in danger of desertification in Bolivia.
- 1.5 The periods of political and economic instability that Bolivia experienced in the past relegated environmental considerations and rational resource management to the background. Bolivia has had greater political and economic stability since 1985, which has also led to renewed interest in preventing and mitigating the environmental problems described. In addition, the structural and institutional changes noted below are effecting a significant change in this sphere.

2. Institutional and legal structure for environmental protection and sustainable development

- 1.6 Environmental management in Bolivia began to take shape in April 1992 with the promulgation of the General Environmental Protection Act and the creation of the National Environmental Protection Department (SENMA).
- 1.7 When the Ministry of Sustainable Development and Environmental Protection (MDSMA) was created in 1993, SENMA ceased to exist and its functions were absorbed by the ministry, as were certain functions of the former Ministry of Planning and Coordination. The MDSMA has been given a decisive role in national development planning. It is responsible for overseeing the country's harmonious development by linking human aspects, environmental quality, maintenance and restoration of renewable natural resources, and rational economic development.
- 1.8 In addition, the government has established a National Development Council (CONADE) composed of ministers of state and headed by the President of the Republic or, in his absence, the Minister of Sustainable Development and Environmental Protection. CONADE is the principal agency responsible for coordinating the activities of the government's sectoral organs; it began operating in mid-1994 and meets regularly.
- 1.9 One of the MDSMA's tasks is to provide a logical and coherent framework for the laws and regulations for environmental protection and sustainable development. Antedating the promulgation of the General Environmental Protection Act is a set of laws that, in a haphazard and isolated way, cover part of the MDSMA's area of interest: the Agrarian Reform Act (1953); the General Colonization Act (1966); the General Forestry Act of the Nation (1974) and its implementing regulations (1977); the Wildlife, National Parks, Hunting, and Fishing Act (1975); the Health Code (1978); the Historical Ecological Guide (1990); and the drafts of the new versions of the Forestry Act and the Biological Conservation and Diversity Act.

B. The Government's strategy

1. Economic and social stability and sustainable development strategies

- 1.10 The government that took office in August 1994 is carrying out an agenda which is expediting the process of structural change begun in 1985 and is attempting to eliminate several bottlenecks that impede faster growth of the Bolivian economy. It is trying to remove restrictions through: (i) modernization and reorganization of the public sector; (ii) passage of the Public Participation Act, under which communities themselves, through their civic governments, assume responsibility for managing their resources;

(iii) the Act with respect to Capitalization of Public Enterprises, which creates opportunities for the participation of private capital in managing major public companies and gives the public a role; (iv) the Educational Reform Act; and (v) the reform of the Constitution.

- 1.11 The Bolivian government is in the process of defining its first national sustainable development strategy, which is to become the general economic and social development plan for the entire country. Although the strategy has still not been made public, the government has repeatedly said that it will be aimed at: (i) re-converting the productive structure by increasing investment and employment in order to improve the population's living standards; (ii) increasing exports and supporting coca substitution efforts; (iii) dramatically increasing the participation of Bolivian society in the management of the State's affairs through the establishment of regional grassroots organizations; (iv) increasing society's share of the benefits stemming from public economic activities; and (v) conserving natural resources and the environment.

2. Investments in the environment and sustainable development

- 1.12 Among the projects now under negotiation and those to be carried out in 1992-1996, Bolivia would receive somewhat more than \$350 million (excluding the present project) from various bilateral and multilateral sources for projects for environmental protection and sustainable development. Bolivia has received and continues to receive funding from several sources for the environmental area. Nevertheless, the individual impact has been limited because of duplication of efforts, lack of coordination, and the scant capacity of public agencies to absorb the funding. The present project will help improve capacity for executing and absorbing these contributions by the beneficiary agencies.

3. The Civil Service Program

- 1.13 The Civil Service Program is responsible for drawing up the basic rules and regulations of the personnel administration system in the public sector. The system was established under Act 1178 - the Government Administration and Control Act (SAFCO) of 1990. Among its objectives are: (i) to professionalize the civic service; (ii) to use merit as the dominant criterion in selecting and evaluating human resources and promoting their development; (iii) to base salaries on the performance and experience of each employee; and (iv) to rationalize the assignment of personnel to truly necessary positions and administrative structures.
- 1.14 The body that administers the Civil Service Program is the Ministry of Finance and Economic Development (MHDE). Its authority extends to permanent public employees in central government institutions, and employees in the program are subject to the regulations governing the administrative career for public employees. The

Civil Service Program is financed by the Treasury Department (TGN) and the international community.

C. The Bank's strategy

- 1.15 The Bank's strategy in Bolivia, reviewed during the Programming Mission of November 1993, is geared to supporting the government in removing obstacles that affect the country's sustainable development. The Bank's strategy emphasizes the improvement of social conditions, the modernization of the production apparatus and increased output, and the protection and preservation of the environment and natural resources. In addition, in referring to the environment, the guidelines of the Bank's Eighth Replenishment of Resources stress the strengthening of the legal and regulatory structure; the establishment of efficient environmental institutions; an increase in capacity to conduct evaluations of high technical quality in development projects; the promotion of community education, training, and participation; and the conservation and administration of natural resources.
- 1.16 The country's current pipeline of projects with the Bank (see tentative program of loans at the beginning of the document) anticipates a US\$360 million loan program during 1994-1995 in the different economic sectors that the Bank finances. It should be noted that the present project to strengthen the MDSMA is the only operation of an environmental nature included for that period. The government has shown interest in including an environmental forestation operation in the near future for the Guadalquivir river valley in the department of Tarija.
- 1.17 The Bank's activities in the area of protecting and conserving the Bolivian environment, initiated in 1987, thus far comprise six operations valued at approximately \$9.5 million. The financing awarded is mainly aimed at mitigating the environmental impact of major projects, and in the case of the technical-cooperation funding for a land management program of the Amazon region found in the Bolivia departments of La Paz, Beni, and Cochabamba (ATN/SF-4104-BO) to advancing efforts in land management that complement the present project. Since its creation, the MDSMA has acted as executing agency for all these operations.
- 1.18 Preparation of the studies on which the operation proposed in this document is based has been supported by the Bank with resources from the Italian Trust Fund (ATN/IF-4446-BO) and through technical-cooperation program ATN/SF-4511-BO.

D. Project design

- 1.19 The institutional and strategic diagnoses made during the preparation of the project note that the MDSMA has certain advantages that facilitate its response to the innovative and strategic function the government has assigned it: the existence

of the National Development Council, whose operation will lead to close coordination among the different ministries; assignment of planning duties to the MDSMA which make the ministry responsible for creating a general strategic framework to guide the country's development; designation of a senior management team close to the President of the Republic; and a streamlined and relatively small internal structure which intends to adhere to the provisions of the Civil Service Program and which will be supplemented by consulting contracts and subcontracts in order to prevent excessive growth.

- 1.20 The diagnoses also note certain drawbacks in the MDSMA: (i) the absence of institutional links outside the seat of government, which translates into a lack of an effective field presence; (ii) insufficient professional staff; and (iii) inadequate technical specialization of the staff in areas of interest to the ministry.
- 1.21 The analyses reveal that the basic information required for the government's decisions on sustainable development and environmental quality control is inadequate and not centralized. Priority areas have been identified and the difficulty in obtaining and processing information for each of these areas has been assessed. It has been concluded that remedying the chief deficiencies in this area is technically and economically feasible.
- 1.22 In summary, there are three main reasons to support the project described in this document: (i) the importance of the Bolivian government's commitment to adopting a model of economic and environmental sustainability in managing national development, which merits all the support the international community can give; (ii) the relative initial weakness of the MDSMA, the agency responsible for spearheading this process; and (iii) recognition that there are various obstacles of a technical nature that stand in the way of the government's commitment and which can be overcome through timely financial support.

II. THE PROJECT

A. Objectives and goals

- 2.1 The project's general objective is to help the government of Bolivia develop an effective capacity for managing sustainable development.
- 2.2 The project includes the following specific objectives to help achieve the general objective:
 - a. To strengthen the MDSMA's technical, regulatory, and administrative capacity and establish its presence on the departmental level.
 - b. To improve the cartographic and biophysical databases on the country's forest resources and propose ecological and economic zoning for priority watersheds.
 - c. To establish a program to monitor and control the quality of the environment and natural resources.
 - d. To promote the inclusion of sustainable development concepts in formal and informal education, and promote public participation in sustainable development programs.
 - e. To evaluate the feasibility of private sector participation in providing certain public environmental services.
- 2.3 The project has the following principal targets, which should have been fulfilled by the time it ends:
 - a. At least three reports containing recommendations regarding environmental public investment proposals, including those generated by the MDSMA itself and submitted to CONADE for consideration;
 - b. Twenty new technical staff trained under the project and absorbed into the MDSMA's regular staff;
 - c. Approximately 80 technical employees from the participating entities trained in technical environmental areas, including eight with master's degrees;
 - d. Draft legislation and regulations on the environment, water, land use, and public participation;
 - e. A geographic information system in operation for the forestry, watershed management, and environmental quality components of the project;

- f. A forest map based on updated information on a 1:250,000 scale; a ecoforestry zoning map on a 1:250,000 scale; a forest potential map; and a national forest monitoring program in operation;
- g. An economic and ecological zoning proposal for the Pilcomayo basin; a document evaluating development strategies for the Madre de Dios River basin; and a master plan for the Ichilo, Chimoré, and Yapacaní subbasins;
- h. A set of basic environmental quality standards governing water quality, air quality, the use of agrochemicals, and food inspection;
- i. A system in operation for evaluating environmental impact and monitoring environmental quality;
- j. Five environmental units established in the Ministry of Finance and Economic Development and one in the Ministry of Human Development, and nine departmental environmental units established in each of the country's departments;
- k. A proposal on policies, course contents, and guides for preparing sustainable development education projects;
- l. Consensus-building and social communications programs carried out;
- m. Three studies prepared of the feasibility of privatizing environmental services.

B. Description of the project

- 2.4 The project has been organized into five components corresponding to its five specific objectives: (i) institutional strengthening; (ii) development of information and decision-making criteria; (iii) environmental quality control and EIEs; (iv) promotion of community participation; and (v) studies of the feasibility of privatizing environmental services.
 - 1. Institutional strengthening component
- 2.5 The project will finance technical assistance for the MDSMA and selected sectoral and departmental agencies for both conceptual and organizational aspects associated with their respective responsibilities. The technical assistance will be provided by a specialized consulting firm which will bear the principal responsibility for guiding the execution of this first component.
- 2.6 The project will also finance an advisor for the National Development Council (CONADE) for the three years of the project in order to support the operation of the Council's Executive Secretariat, a

responsibility exercised by the MDSMA's National Planning Department. The advisor will be responsible for facilitating the task of reviewing public investment proposals to ensure that investment adheres to the guidelines of the general economic and social development plan.

- 2.7 In addition, the project will help to reduce the shortage of trained technical staff working as permanent employees of the ministry. It proposes to hire 20 technicians to reinforce key units for the smooth functioning of the institution and project execution. These technicians would be contracted through the Civil Service Program, thus guaranteeing salaries which will attract people with adequate levels of academic training and experience. Under civil service provisions, they would be hired as permanent employees. These technicians would be able to assume responsibility for continuing the operation of the systems after the end of the project.
- 2.8 In order to streamline access to, analysis, and transmittal of the MDSMA's internal information, and to link it to external bodies, automated systems will be installed for preparing documents, transmitting messages, budget control, and other procedures designed to make technical and administrative management more efficient (Annex II-1 available in the technical file gives a detailed description of the scope of these activities).
- 2.9 To improve the MDSMA's administrative capacity and at the same time ensure good administrative and accounting management of the loan, the Administrative and Financial Directorate (DAF) will be strengthened by contracting specialized consulting services. Initiation of this consultancy is a condition precedent to the first disbursement.
- 2.10 The execution of a training program is a key element in the institutional strengthening component. Four types of training will be offered: (i) short courses contracted with local universities and specialized agencies; (ii) fellowships for master's level studies abroad; (iii) in-service training; and (iv) specialized courses. The first and second types will allow for participation by civil society (approximately 10% of the beneficiaries). Training areas will be defined annually by the MDSMA after an analysis of real demand. In-service training will benefit particularly from the availability of the experts provided by the consulting firms and suppliers of specialized equipment.
- 2.11 Last, this component includes the development of proposals for regulating existing laws in the priority areas requested by the MDSMA. These tasks will be carried out by a team of consultants specializing in environmental legislation contracted for a total of 72 expert-months (three experts for 24 months each). The areas would include: (i) regulations for the Environmental Protection Act, specifically with respect to the use of environmental impact

evaluations (EIEs) and follow-up on them, management of dangerous wastes, and control of air-polluting emissions; (ii) draft legislation and regulations for the Water Act in matters regarding management of toxic effluents and wastes; (iii) regulations for Land Act with regard to land management and conservation and the use of agrochemicals; and (iv) regulations for the Public Participation Act with respect to the forgoing areas.

2. Information and decision-making component

- 2.12 The project will invest in the establishment of a geographic information system (GIS) based on satellite data which covers the areas of natural resources and environmental quality. It will serve as an input for the project's technical components. (Annex II-2 in the technical file contains a detailed description of this activity's technical scope.) The GIS will operate in the MDSMA and will help provide a solid basis for supporting executive decisions and obtaining the participation of Bolivian society in general.
- 2.13 The GIS will obtain information from the different studies and analytic activities financed by the project, process it, and generate intermediate products for the project's internal use and final products for public dissemination. The information processed by the GIS would be available for daily use by the MDSMA employees through computer equipment installed with project funds. The GIS has been designed at a technological level that takes into account the conditions and limitations of the local infrastructure as to telecommunications and the availability of basic information.
- 2.14 The GIS would be developed by experts hired through a consulting firm, operate as part of the MDSMA, and establish communications and exchange networks with other systems and databanks in the country which are able to and interested in taking part in this effort.
- 2.15 Thus structured, the GIS would form part of the integrated information system for sustainable development that would be established with financing from other sources, which will be broader in scope than the project under consideration here.
- 2.16 A second basic activity of this component will be the preparation of a forest map and establishment of a system for monitoring forest resources (the project's technical file contains a technical description of these activities in Annex II-3). The project will finance the collection, quality control, and organization of data about the situation, nature, condition, and processes affecting the country's natural forests. Through this investment it is hoped to obtain reliable data on forest processes for evaluation and follow-up purposes. The main product of this activity will be preparation of a forest map of Bolivia on a 1:250,000 scale.

- 2.17 Using this updated information, the project will finance preparation of an ecoforestry zoning scheme for the country which will delimit areas where logging is permitted, protected forest areas, and forest areas which can be converted to crop or livestock farming. Additionally, a map will be prepared showing the potential use of Bolivian forests which will provide information about their quantitative characteristics.
- 2.18 Last, the project will develop a forest monitoring program that will provide better information on volumes, production, the deforestation rate, the nature and distribution of its causes, and measures that should be taken to prevent undesirable processes (fires, diseases and pests, and illegal logging).
- 2.19 The project will also finance a series of studies in varying detail on watershed zoning and management (see the technical description of these activities in Annex II-4 in the technical file). These studies will round out information on the ecological and socio-economic opportunities and restrictions affecting Bolivia's development. Watersheds have been chosen as the unit of analysis for this purpose because they provide a comprehensive view of the operation of biophysical and socioeconomic systems. The introduction of a comprehensive view of this kind will provide Bolivia's traditionally sectoral approach to managing its natural resources and preserving its human environment with a cross-sectional view that will facilitate identifying and dealing with unwanted cross-sectoral impacts and actions that do not contribute to sustainable management of natural and human areas.
- 2.20 The first and most extensive of the planned studies will be carried out in the Pilcomayo River basin, where the project will finance the preparation of a proposal for ecological and economic zoning, in the first instance for four representative microbasins. The information obtained for those areas would be supplemented by data obtained under other, related projects which would be executed in adjoining areas, and then, with the necessary corrections, would be extrapolated to cover the entire watershed.
- 2.21 Three study areas have been selected in the Amazonian watershed and the interior drainage region: the Madre de Dios River basin, the subbasins of the Ichilo, Chimoré, and Yapacaní Rivers, and the Lake Titicaca basin. The project will conduct additional studies in these areas to supplement existing studies in order to bring them up to the same level of detail as will be achieved at the end of the Pilcomayo study. Observations and conclusions will result from this analysis that can be used to complete and update the national land management program. In two cases the project will move forward in studying the feasibility of specific investments in the subbasins of the Ichilo, Chimoré, and Yapacaní Rivers, since adequate background studies already exist.

- 2.22 The watershed and forest studies will be executed under a contract with a specialized consulting firm.

3. Environmental quality control and EIE component

- 2.23 The project will help remedy two basic deficiencies in order to improve the government's capacity to act effectively in improving the quality of the human environment. The first is the inadequacy of the specific regulatory framework, and the second is the absence of management mechanisms to facilitate the enforcement of policies in this field.
- 2.24 In the regulatory sphere, the project proposes to provide specialized technical assistance (through the consulting firm hired to provide institutional strengthening) to enable the MDSMA's units to draw up policy and strategy proposals to complete and improve the existing guidelines.
- 2.25 The project will also finance the development of environmental quality standards for areas that are priorities for the MDSMA: water quality, air quality, agrochemical use, and food control. The MDSMA staff, with support from consultants, will develop and put into practice temporary standards, to be followed by definitive standards to be implemented over a set period (10 or 15 years, for example). The conclusion of this process will require additional financing from other sources, until all the technical areas in which similar studies must be conducted are covered.
- 2.26 Together with the development of the regulatory framework, the project will finance the establishment of a basic capacity for implementing the rules and regulations developed on two levels: in the sectoral agencies that are not under the direct jurisdiction of the MDSMA, and in the departments, where the central agencies are usually poorly represented.
- 2.27 At the sectoral level, the project will finance the establishment and operation of six environmental units, which would be located in the Ministries of Health, Mining, Transportation and Communications, Industry, Energy, and Agriculture. The project would contribute by hiring two technicians specializing in environmental impact evaluation and environmental quality control in their respective areas of expertise for each of these environmental units. The units will form part of the national environmental quality control and environmental impact evaluation system headed by the MDSMA, whose procedures will be developed as part of the project.
- 2.28 The project will also finance the establishment and operation of nine departmental units, one in each department. These units would be temporarily located in the Regional Development Corporations (CORDES) until the decentralization act is passed. The departmental units will carry out two duties: (i) they will promote the

economic and social development plan on behalf of the Ministry; and (ii) they will act as environmental units responsible for supporting the environmental quality control and EIE programs financed by the project. The project will finance four technicians that specialize in the environmental and sustainable development problems of each department, with experience in EIE and environmental quality control.

- 2.29 The technicians in the environmental units of both the sectoral and departmental offices would be direct beneficiaries of the in-service training and technical assistance provided.
- 2.30 In addition, the technicians in the environmental units will receive equipment, and the units' operating expenses will be met with funds from the project throughout the execution period.
- 2.31 The beneficiary entities, i.e., the sectoral offices and departmental commissions (or the agencies at whose headquarters the departmental units are established), would commit themselves to assimilate the technicians financed by the project and to assume the operating costs of the environmental units at the end of the project.
- 2.32 The incorporation of the environmental units in sectoral and departmental offices, the conceptual and operational strengthening of the MDSMA units specializing in this area, and the provision of high-level technical assistance will create the conditions needed to initiate the operation of the national EIE and environmental quality control system. The consultants contracted by the consulting firm as part of the institutional strengthening component will help to fine tune the current design of the system.
- 2.33 With the participation of the structures thus established, six national campaigns will be conducted during the project's three years to gather data about the quality of the environment. The campaigns have been designed as expeditious and low-cost ways to obtain information about the nature, location, and magnitude of the country's environmental quality problems. Three acute cases of national importance and scope have been preselected: household effluents, industrial effluents, and dangerous wastes. Samples will be collected and analyzed in each campaign with the participation of various sectors of society. The MDSMA, through its information program, will make the findings from each campaign known to the Bolivian public and will also outline possible solutions, emphasizing problems that can be prevented or diminished through changes in the behavior of individuals and institutions.

4. Promotion of civic participation in sustainable development

- 2.34 The project will finance formal and informal education activities (see details of the activities in Annex II-5 in the technical file) to help implement sustainable development policies and guidelines.

Proposals will be designed for educational policies to introduce the concepts of sustainable development and the environment, and guides and manuals will be written which can be used in preparing educational project proposals which would later be submitted for financing. This effort will be an MDSMA contribution to the regular work of the National Education Department (Ministry of Human Development) on the request of and in agreement with the MHD.

- 2.35 The execution of a social communications program and a consensus-building program will be financed as basic support for the execution of the entire project. The object of the first is to disseminate, with the support of professionals in social communications, the information and messages that the project's different components generate, as well as others stemming from the general economic and social development plan. The purpose of the second is to facilitate interinstitutional and interdisciplinary meetings and discussions of action priorities concerning sustainable development and the environment. This program will facilitate exchanges and communication among the MDSMA, NGOs, provincial grassroots organizations, and the public at large. Annexes II-6 and II-7 in the technical file contain descriptions of the activities included in the social communications and consensus-building programs, respectively.
- 2.36 The technical alternatives for the consensus-building program will be: (i) strategic planning or planning by objective, on the basis of the concrete objectives and goals of the groups involved in the topics under consideration and with their active participation; (ii) development of proposals to solve the main obstacles detected in applying sustainable development policies, with the support of highly-specialized technical assistance in identifying technically and economically viable alternatives for the parties involved; (iii) the use of conflict-resolution techniques in discussions of subjects of interest with the groups involved and/or participants.

5. Feasibility of privatizing environmental services

- 2.37 During project preparation, prefeasibility studies were made of four cases in the following four priority areas (see the summary of the prefeasibility report in Annex II-8 in the technical file): (i) solid waste management; (ii) control of industrial and mining pollution; (iii) agrochemical control; and (iv) vehicle emission control.
- 2.38 Based on the analysis of these four cases, the project will finance feasibility studies of the three cases identified as potentially viable: (i) privatization of the services of the transfer station and sanitary landfill in La Paz, and supervision of private operators; (ii) privatization of the system for treating liquid waste from mines and sewage in Oruro; and (iii) measurement and control of vehicle emissions in La Paz (agrochemical control did not pass the prefeasibility analysis since no additional functions

were identified that the private sector could cover). Once the feasibility studies are completed, the Bolivian government would be in a position to put the services out for public bidding.

C. Beneficiaries

- 2.39 The objective of the program is to benefit the country by helping to build up a rational system for planning and managing its natural resources. The benefits to society would result from improvements in the quality of the environment and in harmonious and sustainable development whose benefits would extend to future generations.
- 2.40 The program will train approximately 80 public professionals out of an estimated universe of 106 professionals working in the environmental area in the MDSMA and the environmental units of the sectoral and departmental offices to be established; this makes for coverage of approximately 75%. The information campaigns will be aimed at all segments of the population through radio and television programs and the formal education system.

D. Scale of the project

- 2.41 The scale of the project has been determined on the basis of a master plan to strengthen the MDSMA and an environmental management system for the whole country. This plan was submitted for the IDB's consideration by the government of Bolivia. Taking into consideration the plan's technical proposals, the project team worked on an analysis to determine priority areas requiring strengthening, and made a deeper study of demand and needs and of institutional and financial constraints. Another important factor in the scaling was the availability of cofinancing funds to cover certain aspects of the plan.
- 2.42 On the basis of the priorities determined, specific objectives and products were defined that could be obtained in a three-year execution period and would meet technical, institutional, and financial viability criteria. The scale also responds to an execution plan which is considered viable and effective given present institutional weaknesses.

E. Cost and financing

- 2.43 The project's total cost is estimated at US\$23 million and will be financed through a loan from the Bank of US\$19 million equivalent and a local counterpart in the equivalent of US\$4 million from the Treasury Department. The US\$19 million loan will come entirely from FSO resources, of which US\$9 million will be in local currency and US\$10 million in foreign exchange.
- 2.44 The Bank loan will finance the costs of consultation, training, computers and miscellaneous equipment, 73% of the incremental

technical staff assigned to the ministry during the project's initial years, and 93% of the incremental costs of administration.

2.45 The counterpart (equivalent to US\$4 million) will consist of financing to rent office space, logistical facilities, import duties on equipment and vehicles (under "General Support"), communications, equipment maintenance, and incremental technical staff, part of which would initially be financed by the Bank and ultimately absorbed by the MDSMA. The additional annual budget obligation would be approximately US\$1.3 million equivalent during the execution of the project.

2.46 The project is divided by investment category into administrative costs, direct costs, concurrent costs, unallocated costs, and financing costs. The project's detailed budget is shown in Annex II-9, and the calculation of the budget is presented in Annex II-9-A in the project's technical file. A summary of the budget is given below:

| | CATEGORY | IDB | LOCAL | TOTAL | % |
|-----|--|-----------|-----------|------------|------|
| I | ADMINISTRATION | 797,000 | 58,000 | 855,000 | 3.7 |
| | 1.1 Coordination unit | 292,000 | 58,000 | 350,000 | 1.5 |
| | 1.2 Office of the project director | 505,000 | 0 | 505,000 | 2.2 |
| II | DIRECT COSTS | 7,450,000 | 3,374,000 | 10,824,000 | 47.1 |
| | 2.1 Institutional strengthening | 1,068,000 | 255,000 | 1,323,000 | 5.8 |
| | 2.1.1 Technical personnel | 686,000 | 255,000 | 941,000 | |
| | 2.1.2 National consultants | 382,000 | 0 | 382,000 | |
| | 2.2 Environ. quality control and EIE | 1,760,000 | 1,210,000 | 2,970,000 | 12.9 |
| | 2.3 Promotion of civic participation | 1,303,000 | 0 | 1,303,000 | 5.7 |
| | 2.4 General support | 0 | 1,659,000 | 1,659,000 | 7.2 |
| | 2.5 Equipment and vehicles | 3,319,000 | 250,000 | 3,569,000 | 15.5 |
| | 2.5.1 Quality control/EIE equipment | 1,031,000 | 0 | 1,031,000 | |
| | 2.5.2 Field, forest, and watershed equipment | 958,000 | 0 | 958,000 | |
| | 2.5.3 GIS equipment | 367,000 | 0 | 367,000 | |
| | 2.5.4 Office automation equipment | 782,000 | 0 | 782,000 | |
| | 2.5.5 Vehicles | 181,000 | 250,000 | 431,000 | |
| III | CONCURRENT COSTS | 8,665,000 | 0 | 8,665,000 | 37.7 |
| | 3.1 Consulting firms | 7,648,000 | 0 | 7,648,000 | 33.3 |

| | | | | |
|---|------------|-----------|------------|-------|
| 3.1.1 Institutional strengthening | 2,000,000 | 0 | 2,000,000 | |
| 3.1.2 Watersheds and forests | 4,926,000 | 0 | 4,926,000 | |
| 3.1.3 GIS | 322,000 | 0 | 322,000 | |
| 3.1.4 Feasibility privatization env. services | 400,000 | 0 | 400,000 | |
| 3.2 Training (general, GIS, systems) | 1,017,000 | 0 | 1,017,000 | 4.4 |
| IV EVALUATION | 40,000 | 0 | 40,000 | 0.2 |
| SUBTOTAL (I + II + III + IV) | 16,952,000 | 3,432,000 | 20,384,000 | 88.6 |
| V UNALLOCATED | 1,460,000 | 386,000 | 1,846,000 | 8.0 |
| 5.1 Contingencies | 1,334,000 | 386,000 | 1,720,000 | 7.5 |
| 5.2 Cost escalation | 126,000 | 0 | 126,000 | 0.6 |
| VI FINANCING COSTS | 588,000 | 182,000 | 770,000 | 3.4 |
| 6.1 Interest | 398,000 | 0 | 398,000 | 1.7 |
| 6.2 Credit fee | 0 | 182,000 | 182,000 | 0.8 |
| 6.3 Inspection and supervision | 190,000 | 0 | 190,000 | 0.8 |
| TOTAL | 19,000,000 | 4,000,000 | 23,000,000 | 100.0 |
| Percentages | 83% | 17% | 100% | |

2.47 Administrative costs (US\$855,000) account for 3.7% of the total cost and are for the coordination unit and the office of the project director. In the coordination unit (US\$350,000), the costs connected with contracting the coordinator (36 person-months), part of the costs of contracting two experts (72 person-months), and travel and per-diems would be charged to the Bank's contribution. In the office of the project director (US\$505,000), the costs of the director (international) and two experts (national), totaling 108 person-months, plus travel and per-diems, would be charged to the Bank's contribution.

2.48 The direct costs (US\$10,824,000) represent 47.1% of the total cost and cover the following subcategories:

- a. Institutional strengthening (US\$1,323,000), which includes the costs of the technical staff that the MDSMA will gradually absorb and costs connected with the national consultants to be contracted exclusively for execution of this component (includes the strengthening of the Administrative and Financial Directorate). The local contribution of US\$255,000 represents the portion of the technical staff to be absorbed by the MDSMA under the Civil Service Program during project execution.

- b. Environmental quality control system and environmental impact evaluation (US\$2,970,000). The items included are 12 technicians (432 person-months) to be assigned to the environmental units of the six sector offices (US\$605,000), 36 technicians (1,296 person-months) to be assigned to the nine departmental environmental units (US\$1,815,000), and the costs of individual consultants plus other direct costs (US\$550,000). Half of the technicians' remuneration will be paid out of the local contribution.
- c. Promotion of civic participation (US\$1,303,000) to be financed from the Bank's contribution. This includes two international consultants at US\$105,000 (15 person-months) and 10 national consultants at US\$296,000 (168 person-months) to assist in the definition of environmental policies and guidelines, the inclusion of environmental topics, and the social communications and consensus-building programs. Other direct costs and the costs of workshops, seminars, television and radio campaigns, and publications (US\$902,000) are also included.
- d. General support (US\$1,659,000) to be financed from the local contribution. This includes the operating costs for renting offices, import duties on equipment and vehicles, furniture, maintenance, supplies, computer inputs, and communications for the different program components.
- e. Equipment and vehicles (US\$3,569,000) covers: (i) environmental quality control and EIE equipment (US\$1,031,000) to be financed from the Bank's contribution, including collection of samples of various kinds, well drilling, field and metering materials, and computer equipment; (ii) field equipment for the forest and watershed component (US\$958,000) to be financed from the Bank's contribution, including satellite images (forest map), field equipment, different samples, civil works, digitized cartography from satellite images, hydrometric stations, field measurements, and computer equipment; (iii) GIS equipment (US\$367,000) to be financed from the Bank's contribution, including the equipment (hardware and software) needed to implement this subcategory; (iv) office automation equipment (US\$782,000) to be financed from the Bank's contribution, including the computer equipment needed to automate the MDSMA; (v) 17 vehicles (US\$431,000), including nine for the environmental quality control components, six for the preparation of the forest map and monitoring and watershed studies, one for the office of the project director, and one for the coordination unit. It also includes renting a boat for six months for the Madre de Dios basin. The nine environmental quality vehicles and one for forest monitoring will be financed from the local contribution.

2.49 The concurrent costs (US\$8,665,000) to be financed from the Bank's contribution include the fees of the consulting firms responsible

for: (i) institutional strengthening; (ii) development of the geographic information system; (iii) preparation of the forest map and monitoring and watershed studies; and (iv) feasibility of privatizing environmental services. Training is also included (general, geographic information systems, and office systems).

- 2.50 US\$40,000 chargeable to the Bank's contribution is included for preparing the mid-term external evaluation report.
- 2.51 The unallocated category (US\$1,846,000) comprises contingencies (US\$1,720,000, or 7.5% of the total cost) and cost escalation (US\$126,000). Contingencies associated with the local contribution have been calculated as US\$386,600 equivalent.
- 2.52 The financing costs are US\$770,000, of which the credit fee (US\$182,000, 0.5%) will be financed from the local contribution. Interest (US\$398,000, FSO 1%), and the inspection and supervision fee (US\$190,000, 1%) will be financed from the Bank's contribution. The last was calculated on the basis of equal parts during the three years of disbursement.

III. PROGRAM EXECUTION

A. Executing agency

- 3.1 The project's executing agency will be the Ministry of Sustainable Development and Environmental Protection (MDSMA).

B. Internal operating structure of the project

- 3.2 The internal operating structure of the project will be: (i) the office of the project director; (ii) the coordination unit of the MDSMA's institutional strengthening program; and (iii) the follow-up and evaluation committee (FEC) (see Annex III-1).

1. Office of the project director

- 3.3 The office of the project director will consist of a project director (international) and two experts (national). The office will be physically located in the offices of the coordination unit of the institutional strengthening program (ISP) and will be responsible for directing all project activities, including supervision of the technical, financial, and administrative aspects. The project director will be hired within six months after the loan agreement is signed.
- 3.4 The project director will report to the chairman of the FEC and will have overall responsibility for the project (see terms of reference in Annex III-2 in the technical file), supervising the execution of the specific components by the consulting firms and the MDSMA's technical units. His responsibilities will include: (i) carrying out the project in accordance with the contract with the Bank and the project's technical file; (ii) supervising the procurement of the goods and services planned in the project following Bank procedures; (iii) coordinating activities with the participating sectoral and departmental entities; and (iv) preparing and submitting to the follow-up and evaluation committee the annual plan of execution and the project's technical and financial reports. The project director will work in close coordination with the coordination unit.

2. The coordination unit of the institutional strengthening program for the MDSMA

- 3.5 The coordination unit of the institutional strengthening program (PCU) will consist of a coordinator, a technical expert, and an administrative supervisor (see terms of reference in Annex III-3 in the technical file). This unit will act as liaison between the project and the MDSMA and will have the following additional responsibilities: (i) ensuring the participation of ministry staff in institutional strengthening and other planned activities;

(ii) taking part in drawing up the annual plan of activities; (iii) verifying the local contribution and the financial execution of the project with the Administrative and Financial Directorate (DAF); (iv) ensuring logistical support for satisfactory execution of the project; and (v) administering the fellowship program.

- 3.6 The PCU will be specifically responsible for the organization, operation, and subsequent continuation of the teams of technicians contracted with project financing (the distribution of the technicians among the branches of the MDSMA and their terms of reference are shown in Annex III-4 in the technical file), and will make periodic evaluations of the team members in coordination with the civil service. The PCU will also coordinate the implementation of the environmental units in the sectoral and departmental offices.

3. Follow-up and evaluation committee

- 3.7 The follow-up and evaluation committee (FEC) will be responsible for project supervision and internal evaluation and will meet at least half-yearly or in extraordinary session. Its members will be the three National Secretaries of the MDSMA; the project director (who will act as the Committee's secretary); and the head of the PCU. The chairman of the PCU will be appointed by the executing agency under a ministerial directive. The Bank will be invited to attend the meetings.
- 3.8 One of the FEC's first tasks will be to design the project's output indicators and the criteria for project evaluation. Once a year the FEC will consider the progress report for the preceding year and the annual plan of execution for the following period prepared by the project director and the head of the PCU. These reports will contain justifications of any delays that have occurred and proposals for minor changes in the project's original work program set out in the loan proposal.
- 3.9 At the end of each period or stage, the FEC will evaluate headway in the annual plan of execution, the extent to which the objectives have been attained, their compatibility with the goals established and with other national and regional programs, and the distribution of investments by each of the project's components. The FEC will pay special attention to the progress of drafting legislation and regulations, civil society's participation in the management of the project, and the quality of the consultants's work.
- 3.10 Any adjustments made by the FEC should not change the project's original scope or objectives, but rather should be aimed at improving the efficiency and effectiveness of the execution strategies planned initially. In the event that proposed adjustments involve substantial changes in the project's orientation or budget structure, the consultation procedures to be followed will be those established for that purpose in the Bank's policy.

C. Execution priorities

- 3.11 To guide the work of the FEC and internal decision-making for the project, the following order of priorities will apply among the components: (i) first priority: institutional strengthening component; (ii) second priority: information and decision-making criteria for environmental quality control and EIE, and promotion of civic participation; and (iii) third priority: analysis of the feasibility of privatizing environmental services.

D. Execution method

- 3.12 The project will be executed in three annual stages. At the end of each year the program for the next stage will be defined, taking into account the evaluation of the preceding stage. This method has been chosen because the MDSMA is a recently established institution working in a new area in which it has little experience and which can be expected to change rapidly in the coming years. The method has the following advantages: (i) flexibility in programming activities; (ii) the possibility of adjusting the project's goals during execution; (iii) usefulness in the initial stage, in which institutional and operational mechanisms for execution will be adapted and consolidated; (iv) the compatibility of the project's objectives and strategies with the country's macroeconomic policy; and (v) the project's compatibility with other programs in related areas. Programming by stages requires the use of clear prioritization criteria, which will be developed and agreed on by the FEC in the first period of its operation.
- 3.13 Since the project's principal objective is to strengthen the MDSMA institutionally, a project director's office that is part of the ministry's regular structure is a more appropriate execution mechanism than an executing unit; under this approach, the MDSMA will play an active part in technical supervision, contracting consultants, and administering funds.
- 3.14 In addition, a mixed method of direct execution and service contracting is proposed. This strategy responds to a policy shared by the MDSMA and the Bank whose goal is to prevent unwanted growth in the ministry's internal bureaucracy. The activities that will be contracted out share the following characteristics: (i) they are highly specialized; (ii) they require major staff inputs; (iii) they are to be conducted chiefly in the field; and (iv) they will end when the project does.
- 3.15 The project has adopted a policy of reinforcing the MDSMA's professional staff by hiring a group of technicians to be placed in the units requiring the most strengthening. Accordingly, the project will provide the additional funds needed to contract the technicians. The technicians will gradually be assimilated into the MDSMA's staff and into the sector and departmental entities in which they will work; at the end of the project they will become

permanent staff in their respective institutions. It is anticipated that this assimilation will take place through the civil service mechanism (the signing of a cooperation agreement between the MDSMA and the civil service is a prior condition for the first disbursement) in order to guarantee salaries which are competitive in the local market so that technical support will not end when the project does. All of the MDSMA will join the Civil Service Program in the near future; some of its sections already belong. It is thus believed that any wage distortions caused by the hiring of the project's technicians will be temporary.

- 3.16 Last, the project would be too narrow in scope unless investments were also made in strengthening other bodies associated with the MDSMA at the sector and departmental levels. This consideration means that, though the project's executor and chief beneficiary is the ministry, the universe of beneficiaries will be broadened to cover the other participating institutions as well.

E. Technical execution

- 3.17 Some of the project's components will be executed by the MDSMA directly through its technical units, under the supervision of the office of the project director and the PCU. These components are: (i) environmental quality control and EIE; and (ii) promotion of civic participation (see Annex III-5 in the technical file for the terms of reference for the environmental education, social communications, and consensus-building activities.). Further, individual consultants will be contracted directly to support office automation activities (see terms of reference in Annex III-6 in the technical file) and provide administrative and accounting assistance for the DAF (to begin prior to the first disbursement with cost recognition, see terms of reference in Annex III-7).
- 3.18 The activities to be conducted by consulting firms are: (i) technical assistance for the institutional strengthening component (contracting the firm is a condition precedent to the first disbursement, see terms of reference in Annex III-8 in the technical file); (ii) development of the geographic information system (contracting the firm is a condition precedent to the first disbursement, see terms of reference in Annex III-9 in the technical file); (iii) preparation of the forest map and monitoring component and the watershed studies (contracting the firm is a condition precedent to the first disbursement, see Annex III-10 in the technical file); and (iv) the feasibility studies for the environmental services privatization component (see Annex III-11 in the technical file).
- 3.19 Regardless of the execution method (direct or under contract) carrying out the project components will require close professional coordination and participation by the MDSMA's different offices in their respective fields of specialization. The following table shows the distribution of these responsibilities:

| Component | Basic responsibility | Supplementary responsibility |
|---|--|--|
| Institutional strengthening | MDSMA | All departments |
| Development of information and decision-making criteria | Deputy Secretary of Natural Resources | National Planning Department, National Natural Resource and Environment Department |
| Environmental quality control and EIEs | Deputy Secretary of Environmental Protection | Environmental units of sectoral and departmental offices |
| Promotion of civic participation | Deputy Secretary of Promotion | National Civic Participation Department and National Natural Resource and Environment Department |
| Feasibility of privatizing environmental services | Deputy Secretary of Environmental Protection | National Natural Resource and Environment Department, and MDSMA |

3.20 To accomplish the tasks with which they are entrusted, the MDSMA's technical units will have the support of the technicians and consultants contracted with project funds. The cost of the consultants will be covered entirely by the loan, and their contracts will end at its conclusion. The cost of the technicians will be covered only partly by the loan, and the following formula will be used to transfer financial responsibility gradually to the MDSMA: (i) year 1: loan 79%, MDSMA 21%; (ii) year 2: loan 68%, MDSMA 32%; (iii) year 3: loan 46%, MDSMA 54%. After the end of the project, the sectoral beneficiaries will assume all of the costs of these technicians (see the model agreements with the sectoral entities in Annex III-12 and with the civil service in Annex III-13 in the technical file). The MDSMA's contributions would come from its budget and would be channeled through the civil service system to ensure the subsequent hiring of these technicians.

3.21 Each year the office of the project director will draw up an execution plan setting out: (i) each activity to be conducted; (ii) the team or unit responsible; (iii) the results anticipated; (iv) the date on which each activity will be carried out; and (v) the information necessary for coordination and integration with other activities. The execution plan will specifically include programming of the use of fellowship funds abroad (see the fellowship regulation in Annex III-14 in the technical file). The project director, together with the PCU, will submit the execution plan to the FEC at its first meeting for approval.

3.22 Beginning in year two of the project, the office of the project director, together with the PCU, will annually submit a detailed report on the progress made in the preceding year with appropriate justifications. These reports will make it possible to evaluate: (i) the extent of compliance with the annual plan; (ii) changes

needed to attain the objectives; (iii) execution problems encountered and external factors affecting the achievement of objectives and results; and (iv) compliance with procurements, disbursements, financing, and budgeting.

- 3.23 Also in the second year, the execution plan will contain proposals for modifying the project's initial execution plan if any are needed. Such proposals will also be accompanied by the necessary justifications.

F. Reports

- 3.24 The executing agency will submit the following reports to the Bank: (i) half-yearly progress reports based on the meetings of the follow-up and evaluation committee. The first FEC report will include the indicators to be used to measure project results and evaluation criteria. The reports at the end of each year will describe the progress made in the preceding year and any adjustments planned for the following period; (ii) annual financial reports audited by an independent firm approved by the Bank; (iii) a mid-term report, which will coincide with the FEC's second annual report; and (iv) a final technical and financial report.

G. Financial and administrative execution

- 3.25 The MDSMA will open a special account to manage the project funds. The ministry's Administrative and Financial Directorate (DAF) will administer them.
- 3.26 Because the ministry has been created recently, and given the absence of national institutions with enough experience in conducting institutional strengthening activities of the nature and magnitude required for this project, it will be necessary to contract the services of a consulting firm with broad experience and prestige in the administrative and accounting management of public-sector institutions to assist the DAF for 36 months.

H. Procurement and contracting of goods and services

- 3.27 The project's funds will be used to procure and contract goods and services for its different components, in accordance with Bank procedures. For the procurement of vehicles, computer equipment, field and metering equipment, and other goods related to the project, and in awarding contracts for works, the international public bidding system will be used in all cases in which the value of procurements exceeds the equivalent of US\$250,000; that of contracts for works exceeds the equivalent of US\$1,000,000; and that of consulting contracts exceeds the equivalent of US\$200,000. Tenders will be subject to the procedures of the Bank. The services to be contracted and goods to be procured are listed below:

| GOODS AND SERVICES | PROJECT CATEGORY | APPROXIMATE AMOUNT |
|--------------------------------|---|--------------------|
| Consulting firms | -Institutional strengthening (2,000,000) -GIS (322,000) -Watersheds and forests (4,928,000) -Environmental service privatization (400,000) | 7,650,000 |
| Computer equipment | -Institutional strengthening (782,000) -Watershed/forests (128,000) -Environmental quality/EIE support (315,000) | 1,225,000 |
| GIS equipment | -GIS | 370,000 |
| Satellite images | -Forests (map and monitoring) | 475,000 |
| Field equipment | -Forests and watersheds | 275,000 |
| Vehicles (17) | -Project administration (50,000) -Watersheds and forests (150,000) -Environmental units of sectoral and departmental offices (225,000) | 425,000 |
| Radio and television campaigns | -Promotion of civic participation | 550,000 |
| TOTAL | | 10,970,000 |

I. Recurrent expenses

- 3.28 Annual recurrent expenses are estimated as approximately US\$1.2 million connected mainly with the need to provide and train the human resources needed to carry out this project, which will have large social and environmental impacts. ^{1/} These costs are distributed as follows: (i) incremental staff contracted in the MDSMA (US\$250,000); (ii) incremental staff contracted in the departmental units, who will be on the ministry's payroll (US\$300,000); (iii) operation and maintenance of computer equipment and vehicles (US\$225,000); and (iv) operation of the installed geographic information systems, water monitoring stations, sampling, hydrological studies, and operation of the environmental quality monitoring stations (US\$425,000). Under an agreement between the Ministry of Finance and Economic Development and the MDSMA, the civil service will cover approximately US\$400,000 of the costs of incremental personnel, which will significantly ease the additional burden on the MDSMA's budget, and there should thus be no obstacle to the continuity of the project.
- 3.29 The project team has evaluated the additional burden on the MDSMA that the recurrent expenses described above will pose and has concluded that it will not be excessive for the following reasons. In the first place, the approximate increase of US\$800,000 that

^{1/} See paragraph 2.12(c) of the Report on the Eighth General Increase in the Resources of the IDB.

would be added to the MDSMA's budget represents a little more than 10% of its 1994 budget (the equivalent of US\$7.72 million). In view of the new functions and major responsibilities assigned to the ministry in the areas of civic participation, execution of the general economic and social development plan, and other areas, its budget is expected to increase considerably in coming years, thus reducing the burden of the additional spending involved in continuing the activities begun by this project. Moreover, it should be remembered that the government of Bolivia has committed itself to providing local support equivalent to approximately US\$1.3 million annually during the project, which is almost double the amount required to continue its operation. This attests to the government's commitment to continue the activities begun under the project.

- 3.30 Approximately US\$300,000 annually in incremental recurrent expenses will be required to enable all six environmental units in sectoral offices to continue operating after the project's execution. The costs of incremental staff would be approximately US\$200,000 and operation and maintenance (including amortization of the computer equipment) would require US\$100,000. The approximate cost per sectoral unit would be about US\$50,000 a year. Because five of the six offices belong to the Ministry of Finance and Economic Development, the US\$250,000 burden would represent only 0.04% of its 1994 budget of US\$600 million, and the additional burden of US\$50,000 would represent only 0.01% of the Ministry of Human Development's 1994 budget of US\$400 million.
- 3.31 The impact of the annual local contribution (US\$1.3 million) during the project and of the annual recurrent expenses (US\$1.5 million) after its completion on an annual central government budget similar to that for 1994 (US\$1,600 million) would be approximately 0.1% in both cases. The impact of service for this loan on the guaranteed public debt service (US\$331 million) would be 0.18%. Similarly, the impact of the loan on the external debt would be minimal since the increase of US\$19 million represents 0.5% of Bolivia's guaranteed public debt (US\$3,827 million).

J. Execution period and disbursement schedule

- 3.32 The project will be executed in three years, and the disbursement period is three years (see the execution timetable in Annex III-15).
- 3.33 The disbursement schedule is as follows:

| DISBURSEMENT SCHEDULE (in thousands of US\$) | | | | |
|---|-------|-------|-------|--------|
| | 1995 | 1996 | 1997 | Total |
| IDB-FSO | 7,125 | 6,475 | 5,400 | 19,000 |
| Local contribution | 1,500 | 1,040 | 810 | 4,000 |
| Total | 9,275 | 7,515 | 6,210 | 23,000 |

K. Cost recognition and retroactive financing

- 3.34 For purposes of the operation of the PCU and in order to begin strengthening the MDSMA's Administrative and Financial Directorate (DAF), prior expenses of US\$200,000 incurred after the date of the loan request will be recognized - US\$115,000 will be charged to the loan and US\$85,000 to the local contribution.

L. Advance funds

- 3.35 Following the Bank's customary practice, it is recommended that an advance of funds of up to 10% of the total of the respective loans be made in the respective currencies. The advance will be used to procure goods and/or contract the services planned in the project. The advances will be justified by the MDSMA within 180 days after they have been made.

M. Cost recovery

- 3.36 The program is not designed to generate revenues, and therefore no special mechanism has been provided for cost recovery except through the general tax system. This is justifiable since the program's benefits are by nature public.
- 3.37 Nevertheless, it is expected that the regulations to the Environmental Act and the establishment of environmental monitoring procedures will enable revenue-raising mechanisms to be developed (e.g., payments for permits and approval of EIEs) to help maintain the country's capacity for environmental quality control.

N. Operation and maintenance

- 3.38 The borrower, through the executing agency, will bear responsibility for maintaining the computer equipment, field equipment, vehicles, and other metering equipment. As for equipment that the executing agency assigns to the participating ministries and departmental entities, the executing agency should include appropriate maintenance clauses in agreements concluded with the ministries and entities.

O. Inspection and supervision

- 3.39 Bank inspection and supervision will be carried out by the Country Office and the project team, which will take part in the follow-up and evaluation of each annual execution stage.

P. Auditing

- 3.40 The MDSMA will submit annual financial reports on the project to the Bank, together with the report of the external auditors. The project's financial statements will be certified by independent public accountants and submitted to the Bank within 120 days of the close of each year.

Q. Mid-term evaluation

- 3.41 Loan proceeds will be used to finance a mid-term evaluation, which should coincide with the second annual review of the project by the FEC. The mid-term evaluation will substantially broaden the scope of the annual review, and will cover the execution of programmed activities, attainment of the objectives and goals set out in this loan proposal, and the benefits accruing during the period in question.
- 3.42 The evaluation will place special emphasis on the following aspects: (i) fulfillment of the program's objectives measured by the criteria and indicators developed by the FEC; (ii) effectiveness of the environmental quality control system and EIE; (iii) impact of the program on training; (iv) impact of the program on formal and informal education; (v) the viability of having the private sector provide public environmental services; and (vi) substantiation in the form of respective annual budget allocation of the continuity of the services contracted through the civil service.

IV. BORROWER AND EXECUTING AGENCY

A. The borrower

- 4.1 The borrower will be the Government of the Republic of Bolivia, represented by the Ministry of Finance and Economic Development.

B. The executing agency

- 4.2 The executing agency will be the Ministry of Sustainable Development and Environmental Protection through its General Secretariat, which will be responsible for planning, supervising, and executing the project with the support of the office of the project director.
- 4.3 The MDSMA was created by Act No. 1493 on September 17, 1993. The ministry began functioning officially on October 12, 1993, the date on which the regulations implementing the National Ministries Act was approved (Supreme Decree No. 23660). Accordingly, the institution's financial statements for the 1993 fiscal year cover the period from October 12 to December 31. During that period the MDSMA operated with resources from the former National Environmental Protection Department.
- 4.4 On its establishment the ministry took over a large part of the functions of the former Ministry of Planning and Coordination and the former National Environmental Protection Department. The chief responsibilities of the new ministry are: (i) long-term strategic planning; (ii) the management of renewable natural resources; (iii) preservation of the environment, and (iv) implementation of the Civic Participation Act.

1. Organization

- 4.5 Administratively, the MDSMA is one of the three development ministries established under the Ministries Act. The other two are the Ministry of Finance and Economic Development and the Ministry of Human Development. The MDSMA now has three National Departments (Planning, Natural Resources and the Environment, and Civic Participation), a General Secretariat, and seven Under Secretaries (see the MDSMA organization chart in Annex IV-1).

2. Personnel

- 4.6 The MDSMA has a shortage of staff to deal with the responsibilities conferred on it under the Act. The hiring of the proposed 20 local technicians, who would work with the international experts during project execution, would alleviate the ministry's immediate needs in this field.

3. Budget and budget execution

- 4.7 The MDSMA's 1994 budget is US\$14.47 million. Of that amount, US\$6.75 million are transfers to institutions belonging to the ministry such as FONAMA and INE, and US\$7.72 million are for the MDSMA's own operations.

| General MDSMA Budget for 1994 (in US\$) | |
|---|-----------|
| CATEGORY | 1994 |
| Personal services | 2,152,000 |
| Nonpersonal services | 4,340,000 |
| Materials and supplies | 630,000 |
| Other | 598,000 |
| Total | 7,720,000 |

Source: MDSMA, 1994

- 4.8 Because of its recent creation, the MDSMA has not executed projects with international financing or allocated counterpart funds; it will therefore have to demonstrate the availability of local support through annual budget allocations from the TGN approved for this purpose.

- 4.9 Since 1992 the accounts of the ministries of state have been regulated by the SAFCO Act through a single regulation of accounts. Under this scheme the ministry's expenditures, like those of all public bodies, are subject to prior control and subsequent auditing by the Controller General of Bolivia.

C. Interinstitutional coordination: National Development Council

- 4.10 Supreme Decree 23873 created the National Development Council (CONADE) as the Executive Branch's coordinating unit, responsible for proposing, considering, and coordinating national economic and social policies and strategies.

D. Regional coordination

- 4.11 Departmental execution will be supported by the nine Regional Development Corporations until the Decentralization Act is passed. Coordination will be carried out by the PCU.

E. Sectoral coordination

- 4.12 The six environmental units in the sectoral institutions will be located in the National Departments of Agriculture, Transportation and Communications, Health, Mining, Industry, and Energy. Coordination will be carried out by the PCU.

V. PROJECT VIABILITY AND RISKS

A. Project viability

1. Environmental viability

- 5.1 The current institutional situation that has led to this loan proposal has direct and indirect impacts that negatively affect the country's prospects for sustainable development. These institutional shortcomings stand in the way of solving the problems of environmental quality and sustainable management of natural resources. The improvements achieved in the operation of the agencies in these fields will indirectly create improvements in environmental conditions.
- 5.2 In particular, it is expected that this operation will decisively help improve local capacity to execute or supervise evaluations of the environmental impact of public and private investments and of operations that the Bank finances. The project's environmental impacts are positive in nature and will have indirect effects; these benefits are explained in detail in the respective environmental summary in the project's technical files.

2. Technical viability

- 5.3 The capacity of the MDSMA's professional staff to carry out the activities described in this proposal, though limited, will be significantly reinforced through the addition of the technicians, consultants, and consulting firms to be contracted. The technical scope of the activities under consideration is consistent with methods and practices now used in the country, and they represent major but not radical improvements on them. Adequate assimilation of the technical contributions that the project will make can thus be guaranteed.
- 5.4 For their part, the methodology contained in the proposals enables the MDSMA to execute them directly or through contracts with consulting firms. The scope of the operation is adequate and sufficient to meet the specific objectives established.

3. Institutional viability

- 5.5 To analyze the institutional viability of this project, account must be taken of institutional capacity at several levels: (i) coordination capacity; (ii) execution capacity; (iii) administrative and financial capacity to manage the project funds; and (iv) evaluation and follow-up capacity. The project will be institutionally viable because safeguards will be implemented in each area.

- 5.6 Project coordination capacity will be provided through two mechanisms. The first will be the follow-up and evaluation committee (FEC), supported by the PCU and the office of the project director, ensuring linkage between the project and each government ministry. The second mechanism will ensure interministerial and departmental coordination, and will be provided by the National Development Council (CONADE) chaired by the President of the Republic.
- 5.7 The execution capacity of the MDSMA, which is known to be weak in certain areas, will be reinforced by contracting technical staff whom the ministry will gradually absorb during project execution. This mechanism will enable experts in areas identified as critical to be hired immediately and will allow the MDSMA to continue the processes begun under the project after its conclusion.
- 5.8 The MDSMA's administrative and financial capacity will be strengthened by contracting the consulting services described in the relevant sections of this document. To ensure that the follow-up and evaluation committee discharges its duties adequately, the Bank will maintain an active presence in evaluating the extent to which the objectives are attained.

4. Financial viability

- 5.9 The total cost of this project will be US\$23 million, of which US\$19 million will be financed by the Bank and US\$4 million by the counterpart. Since the first budget approved for the MDSMA was the equivalent of US\$14.47 million, of which US\$7.72 million was for the ministry's internal operations, an annual increase of approximately US\$1.3 million will not represent a significant burden since it is expected that its budget will grow significantly in coming years because of the additional responsibilities that have been assigned to the MDSMA. These figures have been discussed with the ministry, and the government's commitment to provide the funds needed for local support of the project has been confirmed. In view of the MDSMA's importance as one of the three pillars of Bolivia's public sector, no difficulties are anticipated in obtaining the funds.
- 5.10 The viability analysis concludes that: the Republic has the financial resources needed to cover the counterpart; the MDSMA's internal administrative and accounting structures are being strengthened to ensure proper management of the funds; and the additional burden of approximately US\$1.3 million a year will not be an obstacle. The project is therefore viable from the financial standpoint.

5. Socioeconomic viability

- 5.11 Needs and priorities in all the areas that the project intends to cover have been determined in the socioeconomic analysis. This

analysis has borne in mind that investments to correct deficiencies in the quality of resources (air, land, and water) are normally high. One-time investments in river clean-up, reforestation, and soil conservation could easily amount to hundreds of millions of dollars. It is clearly more effective in cost-benefit terms to develop preventive capacity, which begins with and is based on efficient institutional structure, the effective participation of the public, and well-defined and acceptable rules guiding economic activity in both the public and private sectors. The economic benefits result indirectly from the removal of institutional constraints.

- 5.12 Because the program's economic benefits will indirectly reach all of society and are not subject to monetary valuation, its distributional impact cannot be measured by quantitative indicators. Nevertheless, given the direct relationship between poverty and environmental deterioration in Bolivia, it is valid to assume that the most disadvantaged groups would be those that would ultimately benefit from the program's results.

B. Project risks

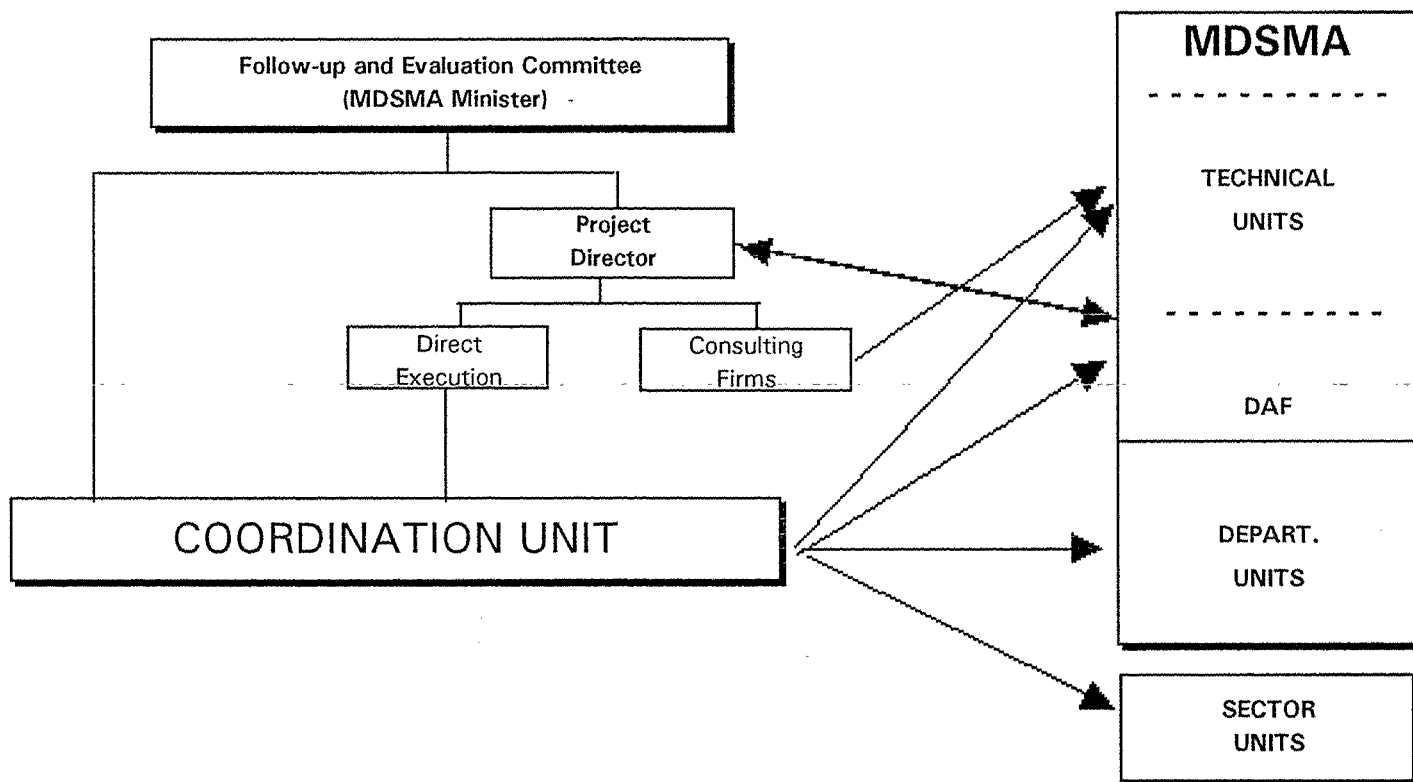
- 5.13 The principal risk is the sustainability of the operation within the MDSMA in both the short and medium terms. In the short term, the ministry's technical and financial resources should be strengthened so that it can carry out its duties and consolidate its position in the national government. Bank support will be an essential factor in that it will facilitate the successful discharge of the ministry's major obligations. This consolidating effect will also be useful in ensuring the stability of the new ministry in the medium term, when a change occurs in Bolivia's government. Accordingly, the social communications and consensus-building activities will play a very important role in obtaining the support of Bolivian society in general.
- 5.14 A possible lack of financial capacity to assume follow-up and maintenance costs after a project has been executed is normally identified as a risk in operations of this kind. To reduce the risk in this case, the project will require gradually increasing local counterpart contributions during execution so that virtually all of the incremental expenses will have been absorbed by the time the project ends.

| COMPONENTS | | | | |
|--|-------------------|------------------|-------------------|---------------|
| | BANK | LOCAL | TOTAL | % |
| A. INSTITUTIONAL STRENGTHENING | 5,847,400 | 681,168 | 6,528,568 | 28.4% |
| A1. NATIONAL COORD. UNIT | 317,400 | 57,600 | 375,000 | 1.6% |
| A2. Office of Project Director | 530,000 | 0 | 530,000 | 2.3% |
| A3. Consulting Firm | 2,000,000 | 0 | 2,000,000 | 8.7% |
| A4. For MDSMA | 2,200,000 | 0 | 2,200,000 | 9.6% |
| A5. General training | 800,000 | 0 | 800,000 | 3.5% |
| A6. General support | 0 | 623,568 | 623,568 | 2.7% |
| B. GIS CONSULTING FIRM | 757,000 | 186,620 | 943,620 | 4.1% |
| B1. Administration of consulting firm | 134,000 | 0 | 134,000 | 0.6% |
| B2. Equipment | 366,500 | 0 | 366,500 | 1.6% |
| B3. Training | 68,500 | 0 | 68,500 | 0.3% |
| B4. Overhead (approx. 150%) | 188,000 | 0 | 188,000 | 0.8% |
| B5. General support | 0 | 186,620 | 186,620 | 0.8% |
| C. FOREST/WATERSHEDS FIRM | 6,016,000 | 311,285 | 6,327,285 | 27.5% |
| C1. Administration of consulting firm | 260,500 | 0 | 260,500 | 1.1% |
| C2. Forests (map and monitoring) | 1,328,000 | 25,000 | 1,353,000 | 5.9% |
| C3. Watersheds | 1,640,000 | 0 | 1,640,000 | 7.1% |
| C4. Overhead (approx. 150%) | 2,787,500 | 0 | 2,787,500 | 12.1% |
| C5. General support | 0 | 286,285 | 286,285 | 1.2% |
| D. ENV. QUALITY CONTROL AND EIA | 2,843,800 | 1,953,000 | 4,796,800 | 20.9% |
| D1. Establishment of six sector env. units | 450,600 | 410,400 | 861,000 | 3.7% |
| D2. Establish. of nine departmental env. units | 1,493,200 | 1,542,600 | 3,035,800 | 13.2% |
| D3. Startup of env. quality control system | 900,000 | 0 | 900,000 | 3.9% |
| E. PROMOTION OF CIVIC PARTICIPATION | 1,303,000 | 45,000 | 1,348,000 | 5.9% |
| E1. Definition of policies and guidelines | 45,000 | 0 | 45,000 | 0.2% |
| E2. Inclusion of environmental topics | 110,000 | 0 | 110,000 | 0.5% |
| E3. Social communications program | 650,000 | 0 | 650,000 | 2.8% |
| E4. Consensus building program | 498,000 | 0 | 498,000 | 2.2% |
| E5. General support | 0 | 45,000 | 45,000 | 0.2% |
| F. PRIVATIZATION OF SERVICES | 400,000 | 0 | 400,000 | 1.7% |
| F1. Feasibility studies | 165,000 | 0 | 165,000 | 0.7% |
| F2. Overhead (approx. 150%) | 235,000 | 0 | 235,000 | 1.0% |
| G. MID-TERM EVALUATION | 40,000 | 0 | 40,000 | 0.2% |
| SUBTOTAL | 17,207,200 | 3,177,073 | 20,384,273 | 88.6% |
| H. UNALLOCATED COSTS | 1,204,800 | 640,927 | 1,845,727 | 8.0% |
| H1. Cost escalation | 125,600 | 0 | 125,600 | 0.5% |
| H2. Contingencies (approx. 10% of subtotal) | 1,079,200 | 640,927 | 1,720,127 | 7.5% |
| I. FINANCIAL COSTS | 588,000 | 182,000 | 770,000 | 3.3% |
| I1. Interest (1% FSO) | 398,000 | 0 | 398,000 | 1.7% |
| I2. Credit fee (0.5%) | 0 | 182,000 | 182,000 | 0.8% |
| I3. Inspection and supervision (1%) | 190,000 | 0 | 190,000 | 0.8% |
| TOTAL | 19,000,000 | 4,000,000 | 23,000,000 | 100.0% |
| Percentage | 82.6% | 17.4% | 100.0% | |

| COMPONENTS | | | | | | | | | | |
|--------------------|-----------|-----------|----------|----------|----------|-----------|-----------|-----------|---------|-----------|
| | TECH | CONS | EQUIP | TRAIN | VEHIC | TRAV/ALLW | OTHER | BANK | LOCAL | TOTAL |
| | subtotal | subtotal | subtotal | subtotal | subtotal | subtotal | | | | |
| AL STRENGTHTENING | 1,264,800 | 1,578,200 | 781,600 | 895,400 | 50,000 | 163,000 | 1,795,568 | 5,847,400 | 681,168 | 6,528,568 |
| ORD. UNIT | 324,000 | 0 | 0 | 0 | 25,000 | 26,000 | 0 | 317,400 | 57,600 | 375,000 |
| f | 324,000 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| r diem | 0 | 0 | 0 | 0 | 0 | 26,000 | 0 | | | |
| | 0 | 0 | 0 | 0 | 25,000 | 0 | 0 | | | |
| Director | 0 | 414,000 | 0 | 0 | 25,000 | 91,000 | 0 | 530,000 | 0 | 530,000 |
| consultants | 0 | 414,000 | 0 | 0 | 0 | 0 | 0 | | | |
| r diem | 0 | 0 | 0 | 0 | 0 | 63,500 | 0 | | | |
| nt costs | 0 | 0 | 0 | 0 | 0 | 27,500 | 0 | | | |
| | 0 | 0 | 0 | 0 | 25,000 | 0 | 0 | | | |
| | 0 | 798,000 | 0 | 0 | 0 | 30,000 | 1,172,000 | 2,000,000 | 0 | 2,000,000 |
| consultants | 0 | 798,000 | 0 | 0 | 0 | 0 | 0 | | | |
| prox . 150%): | 0 | 0 | 0 | 0 | 0 | 0 | 1,172,000 | | | |
| r diem | 0 | 0 | 0 | 0 | 0 | 30,000 | 0 | | | |
| | 940,800 | 366,200 | 781,600 | 95,400 | 0 | 16,000 | 0 | 2,200,000 | 0 | 2,200,000 |
| ity subject areas | 940,800 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| automation | 0 | 100,800 | 0 | 0 | 0 | 0 | 0 | | | |
| unting | 0 | 121,400 | 0 | 0 | 0 | 0 | 0 | | | |
| | 0 | 144,000 | 0 | 0 | 0 | 0 | 0 | | | |
| r diem | 0 | 0 | 0 | 0 | 0 | 16,000 | 0 | | | |
| Office Automation) | 0 | 0 | 781,600 | 95,400 | 0 | 0 | 0 | | | |
| | 0 | 0 | 0 | 800,000 | 0 | 0 | 0 | 800,000 | 0 | 800,000 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 623,568 | 0 | 623,568 | 623,568 |
| ING FIRM | 0 | 125,000 | 366,500 | 68,500 | 0 | 9,000 | 374,620 | 757,000 | 186,620 | 943,620 |
| of consulting firm | 0 | 125,000 | 0 | 0 | 0 | 9,000 | 0 | 134,000 | 0 | 134,000 |
| consultants | 0 | 105,000 | 0 | 0 | 0 | 0 | 0 | | | |
| ultants | 0 | 20,000 | 0 | 0 | 0 | 0 | 0 | | | |
| r diem | 0 | 0 | 0 | 0 | 0 | 9,000 | 0 | | | |
| | 0 | 0 | 366,500 | 0 | 0 | 0 | 0 | 366,500 | 0 | 366,500 |
| | 0 | 0 | 265,100 | 0 | 0 | 0 | 0 | | | |
| | 0 | 0 | 101,400 | 0 | 0 | 0 | 0 | | | |
| | 0 | 0 | 0 | 68,500 | 0 | 0 | 0 | 68,500 | 0 | 68,500 |
| ox. 150%) | 0 | 0 | 0 | 0 | 0 | 0 | 188,000 | 188,000 | 0 | 188,000 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 186,620 | 0 | 186,620 | 186,620 |
| ERSHEDS FIRM | 0 | 1,865,400 | 126,200 | 0 | 156,960 | 272,800 | 3,905,925 | 6,016,000 | 311,285 | 6,327,285 |
| of consulting firm | 0 | 252,000 | 0 | 0 | 0 | 8,500 | 0 | 260,500 | 0 | 260,500 |

| COMPONENTS | | | | | | | | | | | % |
|--------------------------------|-----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|----|
| | TECH | CONS | EQUIP | TRAIN | VEHIC | TRAV/ALLW | OTHER | BANK | LOCAL | TOTAL | |
| | subtotal | subtotal | subtotal | subtotal | subtotal | subtotal | | | | | |
| consultants | 0 | 252,000 | 0 | 0 | 0 | 0 | 0 | | | | |
| per diem | 0 | 0 | 0 | 0 | 0 | 8,500 | 0 | | | | |
| and monitoring) | 0 | 632,200 | 37,800 | 0 | 75,000 | 101,000 | 507,000 | 1,328,000 | 25,000 | 1,353,000 | |
| al consultants | 0 | 126,000 | 0 | 0 | 0 | 0 | 0 | | | | |
| nsultants | 0 | 384,000 | 0 | 0 | 0 | 0 | 0 | | | | |
| upport | 0 | 122,200 | 0 | 0 | 0 | 0 | 0 | | | | |
| per diem | 0 | 0 | 0 | 0 | 0 | 101,000 | 0 | | | | |
| ment | 0 | 0 | 0 | 0 | 0 | 0 | 30,000 | | | | |
| pment | 0 | 0 | 37,800 | 0 | 0 | 0 | 0 | | | | |
| ages | 0 | 0 | 0 | 0 | 0 | 0 | 477,000 | | | | |
| | 0 | 0 | 0 | 0 | 75,000 | 0 | 0 | | | | |
| | 0 | 981,200 | 88,400 | 0 | 81,960 | 163,300 | 325,140 | 1,640,000 | 0 | 1,640,000 | |
| t basic information | 0 | 106,000 | 7,900 | 0 | 0 | 20,000 | 30,640 | | | | |
| ning | 0 | 415,600 | 27,700 | 0 | 50,000 | 73,000 | 128,000 | | | | |
| ps | 0 | 230,000 | 24,100 | 0 | 31,960 | 32,200 | 38,000 | | | | |
| ré-Yapacani | 0 | 229,600 | 28,700 | 0 | 0 | 38,100 | 128,500 | | | | |
| prox. 150%) | 0 | 0 | 0 | 0 | 0 | 0 | 2,787,500 | 2,787,500 | 0 | 2,787,500 | 1 |
| ort | 0 | 0 | 0 | 0 | 0 | 0 | 286,285 | 0 | 286,285 | 286,285 | |
| ITY CONTROL AND EIA | 2,419,200 | 308,400 | 315,000 | 52,800 | 225,000 | 242,200 | 1,234,200 | 2,843,800 | 1,953,000 | 4,796,800 | 20 |
| t of six sector env. units | 604,800 | 0 | 115,200 | 33,000 | 0 | 0 | 108,000 | 450,600 | 410,400 | 861,000 | |
| | 604,800 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| (Office Automation): | 0 | 0 | 115,200 | 33,000 | 0 | 0 | 0 | | | | |
| upport for sector units | 0 | 0 | 0 | 0 | 0 | 0 | 108,000 | | | | |
| nine departamental env. units | 1,814,400 | 0 | 199,800 | 19,800 | 225,000 | 172,200 | 604,600 | 1,493,200 | 1,542,600 | 3,035,800 | 1 |
| | 1,814,400 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| per diem | 0 | 0 | 0 | 0 | 0 | 172,200 | 0 | | | | |
| (Office Automation): | 0 | 0 | 199,800 | 19,800 | 0 | 0 | 0 | | | | |
| soil sampling | 0 | 0 | 0 | 0 | 0 | 0 | 194,200 | | | | |
| | 0 | 0 | 0 | 0 | 225,000 | 0 | 0 | | | | |
| upport for departamental units | 0 | 0 | 0 | 0 | 0 | 0 | 410,400 | | | | |
| v. quality control system | 0 | 308,400 | 0 | 0 | 0 | 70,000 | 521,600 | 900,000 | 0 | 900,000 | |
| policies and strategies | 0 | 42,000 | 0 | 0 | 0 | 49,000 | 10,000 | | | | |
| ampaigns in critical areas | 0 | 266,400 | 0 | 0 | 0 | 21,000 | 425,500 | | | | |
| of manuals and tech. guides | 0 | 0 | 0 | 0 | 0 | 0 | 86,100 | | | | |
| ON OF CIVIC PARTICIPATION | 0 | 401,400 | 0 | 0 | 0 | 51,100 | 895,500 | 1,303,000 | 45,000 | 1,348,000 | 5 |
| policies and guidelines | 0 | 28,800 | 0 | 0 | 0 | 4,000 | 12,200 | 45,000 | 0 | 45,000 | |
| consultants | 0 | 28,800 | 0 | 0 | 0 | 0 | 0 | | | | |
| d per diem | 0 | 0 | 0 | 0 | 0 | 4,000 | 0 | | | | |
| d services | 0 | 0 | 0 | 0 | 0 | 0 | 12,200 | | | | |

| COMPONENTS | TECH | CONS | EQUIP | TRAIN | VEHIC | TRAV/ALLW | OTHER | BANK | LOCAL | TOTAL | % |
|-----------------------------|-----------|-----------|-----------|-----------|----------|-----------|-----------|------------|-----------|------------|-----|
| | subtotal | subtotal | subtotal | subtotal | subtotal | subtotal | | | | | |
| Environmental topics | 0 | 52,800 | 0 | 0 | 0 | 4,000 | 53,200 | 110,000 | 0 | 110,000 | |
| consultants | 0 | 52,800 | 0 | 0 | 0 | 0 | 0 | | | | |
| and per diem | 0 | 0 | 0 | 0 | 0 | 4,000 | 0 | | | | |
| and services | 0 | 0 | 0 | 0 | 0 | 0 | 53,200 | | | | |
| Communications program | 0 | 91,800 | 0 | 0 | 0 | 18,200 | 540,000 | 650,000 | 0 | 650,000 | |
| onal consultants | 0 | 21,000 | 0 | 0 | 0 | 0 | 0 | | | | |
| consultants | 0 | 70,800 | 0 | 0 | 0 | 0 | 0 | | | | |
| and per diem | 0 | 0 | 0 | 0 | 0 | 18,200 | 0 | | | | |
| and services | 0 | 0 | 0 | 0 | 0 | 0 | 540,000 | | | | |
| Building program | 0 | 228,000 | 0 | 0 | 0 | 24,900 | 245,100 | 498,000 | 0 | 498,000 | |
| onal consultants | 0 | 84,000 | 0 | 0 | 0 | 0 | 0 | | | | |
| consultants | 0 | 144,000 | 0 | 0 | 0 | 0 | 0 | | | | |
| and per diem | 0 | 0 | 0 | 0 | 0 | 24,900 | 0 | | | | |
| and services | 0 | 0 | 0 | 0 | 0 | 0 | 245,100 | | | | |
| ort | 0 | 0 | 0 | 0 | 0 | 0 | 45,000 | 0 | 45,000 | 45,000 | |
| ATION OF SERVICES | 0 | 160,000 | 0 | 0 | 0 | 5,000 | 235,000 | 400,000 | 0 | 400,000 | |
| udies | 0 | 160,000 | 0 | 0 | 0 | 5,000 | 0 | 165,000 | 0 | 165,000 | |
| l consultants | 0 | 160,000 | 0 | 0 | 0 | 0 | 0 | | | | |
| d per diem | 0 | 0 | 0 | 0 | 0 | 5,000 | 0 | | | | |
| prox. 150%) | 0 | 0 | 0 | 0 | 0 | 0 | 235,000 | 235,000 | 0 | 235,000 | |
| EVALUATION | 0 | 0 | 0 | 0 | 0 | 0 | 40,000 | 40,000 | 0 | 40,000 | 0 |
| | 3,684,000 | 4,438,400 | 1,589,300 | 1,016,700 | 431,960 | 743,100 | 8,480,813 | 17,207,200 | 3,177,073 | 20,384,273 | 88 |
| ATED COSTS | | | | | | | | 1,204,800 | 640,927 | 1,845,727 | |
| n | | | | | | | | 125,600 | 0 | 125,600 | |
| s (approx. 10% of subtotal) | | | | | | | | 1,079,200 | 640,927 | 1,720,127 | |
| COSTS | | | | | | | | 588,000 | 182,000 | 770,000 | |
| (SO) | | | | | | | 0 | 398,000 | | 398,000 | |
| (%) | | | | | | | 0 | 0 | 182,000 | 182,000 | |
| supervision (1%) | | | | | | | 0 | 190,000 | 0 | 190,000 | |
| | 3,684,000 | 4,438,400 | 1,589,300 | 1,016,700 | 431,960 | 743,100 | 8,480,813 | 19,000,000 | 4,000,000 | 23,000,000 | 100 |
| | 16.0% | 19.3% | 6.9% | 4.4% | 1.9% | 3.2% | 36.9% | 82.6% | 17.4% | 100.0% | |



EXECUTION DIAGRAM

36 months from

[illegible]

BO-0028. Cont.

[illegible]

PROPOSED RESOLUTION

BOLIVIA. REIMBURSABLE TECHNICAL COOPERATION
FOR THE INSTITUTIONAL STRENGTHENING OF THE MINISTRY
OF SUSTAINABLE DEVELOPMENT AND ENVIRONMENT

The Board of Executive Directors

RESOLVES:

1. That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such agreements as may be necessary and to adopt such other measures as may be pertinent for the execution of the plan of operations referred to in Document AT-_____ with respect to a technical cooperation with the Republic of Bolivia for the execution of the program for the institutional strengthening of the Ministry of Sustainable Development and Environment.

2. That up to the sum of US\$19,000,000 or its equivalent, is authorized for the purposes of this resolution, chargeable to the resources of the Fund for Special Operations of the Bank, of which up to US\$10,000,000 shall be disbursed in United States of America dollars or its equivalent, except that of Bolivia, and up to US\$9,000,000 equivalent shall be disbursed in bolivianos.

3. That the above mentioned amount is to be provided on a reimbursable basis, in accordance with the respective conditions which shall be set forth in the agreement to be signed for this operation.