FROM: The Secretary
January 16, 1998

BOLIVIA

PARTICIPATORY RURAL INVESTMENT PROJECT

ENVIRONMENTAL ASSESSMENT EXECUTIVE SUMMARY

1. Attached is the Environmental Assessment Summary (EAS) for the proposed Participatory Rural Investment Project, classified as environmental category A.

2. The Environmental Assessment Summary was prepared by the Borrower, and has not been evaluated or endorsed by the Bank. The Environmental Assessment is subject to review and possible change during the appraisal process.

3. Questions may be referred to the Task Manager, Mr. Pierre Werbrouck, LCSES, ext. 34494. The full Environmental Assessment Report is available upon request from the office of the Director LCC6C.

Distribution:

Executive Directors and Alternates
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PROJECT DESCRIPTION

The project aims to (i) increase rural incomes by co-financing rural investments which have been identified and formulated by rural communities and municipalities in participatory planning processes; and (ii) strengthen the capacity of municipalities, communities and private sector organizations to plan, implement, and maintain the investments.

The project would have two components: (i) rural investments; and (ii) institutional strengthening. Total project cost would be US$82 million of which US$60 million would be financed by IDA.

Component 1: Rural Investments - US$66.5 million.

This component would include the financing of pre-investment studies, works, goods and operational costs for rural investments (subprojects) of the following types:

- **Basic Infrastructure**, including (i) construction and rehabilitation of rural roads; (ii) construction and rehabilitation of one lane vehicular and pedestrian bridges; (iii) communal small-scale irrigation, including multiple use water reservoirs, sprinkler irrigation and other forms of water supply for productive or multiple use; (iv) municipal and community markets; (v) produce storage facilities in the rural areas; (vi) communal agro-processing infrastructure and equipment; (vii) river embankment improvements including boat ramps; (viii) micro-hydro-electric schemes; (ix) rehabilitation and maintenance of municipal infrastructure; (x) rehabilitation of cultural heritage works;

- **Natural Resources Management**: communal soil conservation works; and agro-forestry works;

- **Production Support**: technical assistance to communities in production, processing and marketing;

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1 From Mid-Term Review onwards and after positive evaluation of five pilot operations
Pre-investment Studies: feasibility and detailed engineering studies of basic infrastructure works;

Municipal Investment Programs and Specific Pilot Operations
Aggregate municipal rural investment programs tranched over several years and specific pilot operations which would be agreed upon with IDA on a case by case basis.

Above investments would be financed under the following conditions and eligibility criteria: (i) subprojects are included in the Municipal Development Plan which has to have been formulated in a participatory manner; (ii) beneficiaries, i.e. municipalities and communities (OTBs), contribute in money, labor or kind in various percentages but at least 10 percent of the cost of the subproject; (iii) design and cost of the individual subprojects are subject to economic, financial, technical, environmental and sustainability criteria which are included in FDC’s Operational Manual; (iv) beneficiary municipalities and communities belong to the Category II, III, IV and V poverty rating in accordance with the 1993 Poverty Map and are ranked the lowest on the human development index; and (v) technical specifications for subprojects would follow FDC’s technical requirements.

Component 2: Institutional Strengthening US$15.4 million

This component includes training and institutional strengthening of: (i) 200 local governments; (ii) 2,000 OTBs in 200 municipalities; (iii) 200 vigilance committees; (iv) nine Prefecturas; and (v) the Vice-Ministry of Popular Participation and Municipal Strengthening. The training and strengthening would include a menu of possibilities for technical assistance and support amongst which the municipalities could choose up to a certain annual ceiling. The ceiling would depend on the number of municipal inhabitants and their poverty level.

The investment component of the project would be carried out by the Fondo de Desarrollo Campesino (FDC). The institutional strengthening of the municipalities and communities would be carried out by the Vice-Ministry of Popular Participation and Municipal Strengthening under the Ministry of Sustainable Development and Environmental Planning (VMPPFM). The promoter agencies and implementing agencies for both components (except the training centers) would be recruited by the municipalities and communities from a list of eligible NGOs and private companies.
ENVIRONMENTAL ASSESSMENT

The objective of the environmental assessment carried out during project preparation has been to ensure that the subprojects (financed as separate investments or as aggregate subprojects under municipal program financing) are environmentally sound and sustainable. Consultations with NGOs and stakeholders and impacts on indigenous peoples are dealt with under social assessment.

The bulk of the environmental impacts of subprojects financed under the Project is expected to come from: (i) the construction and rehabilitation of access roads to communities; (ii) small-scale irrigation; (iii) micro hydroelectric power units (if they would be financed under the Project); and (iv) the use agrochemicals in agriculture. Watershed management, forestry and technical assistance would be beneficial for the environment. Because the Project will finance the construction of rural roads it is categorized as an environmental category A project. The environmental assessment has been carried out under the responsibility of the Borrower.

The Environmental Assessment covers the following aspects.

(i) the natural environmental conditions;
(ii) evaluation of environmental management in Bolivia and the legal and regulatory framework;
(iii) the project and FDC’s project cycle;
(iv) recommendations for environmental management of the subprojects
(v) environmental institutional strengthening in the municipalities and FDC

Conclusions of the Environmental Assessment

The EA describes and stresses the main natural characteristics of Bolivia and the regulations on key aspects, relevant to this work, such as planning schemes and tools, popular participation development, land reform, forestry and environmental definitions and enforcement mechanisms. In the last years Bolivia has developed a consistent framework for sustainable development, based on regulations, which define the basis for environmental

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2 Aspectos Ambientales del Proyecto de Inversion para el Desarrollo Rural Participativo, FDC, Diciembre de 1997.
criteria and screening procedures recommended for FDC and project environmental management.

FDC does not have an environmental consistent management neither in subprojects nor in administrative procedures at central and department levels. At this moment the sole environmental consideration in projects is the Ficha Ambiental, requested by the environmental legislation. This one is completed, not by project owners but by the evaluation groups at departmental FDC offices. This indicates the lack of knowledge and interest of subproject owners in environmental considerations and management. FDC does not consider environmental impact an important aspect. Further, the environmental categorization of Fichas Ambientales is being carried out by the central offices of the Vice-Ministry of Sustainable Development, due to lack of institutional capability of Prefecturas, creating "positive silence" or ad hoc environmental approval of projects, after 10 days delay answering period. Therefore the Ficha Ambiental has converted into a "less than legal" requisite.

Environmental impacts are mainly related with lack of technical and environmental considerations of secondary works in projects such as material extraction areas and procedures, secondary access roads, remaining material from road excavation. The last one is specially worrisome in mountainous areas where materials are thrown away onto slopes, creating erosion and instability problems. The root of all this environmental impacts and lack of management is also the lack of environmental specific designs and/or environmental criteria in technical designs.

**Implications of the Environmental Assessment on Project Design**

**Negative Subproject Eligibility Criteria**

The following subprojects will not be eligible for financing under the Project:

(i) investments localized in natural and protected habitat areas, including 21 protected areas under management, 13 with a legal base, 5 which are being proposed and 4 with bio-diversity potential.

(ii) investments localized in areas of Forest Protection in accordance with the Forestry Law of 1996;
(iii) rural roads and bridges or other infrastructure leading to forest exploitation which need a forest concession;

(iv) investments in zones which have no potential for agriculture, livestock, or which are defined in the Plano de Uso del Suelos or Plano de Uso Departamental o Municipal as forest or protected areas, sustainable management forests, and the like. Are excluded from this category areas where brazil nuts, rubber, and other agricultural products which are the backbone of the livelihood of indigenous peoples and OTBs.

(v) construction of roads which do not lead to existing community settlements, or which do not have a connection with the primary and secondary road network.

(vi) construction of infrastructure which would lead to involuntary resettlement.

Positive Subproject Eligibility Criteria.

The following subproject are to be included under category Natural Resources Management: (i) development of municipal forest reserves; (ii) protection and rehabilitation of water capture networks; (iii) zoo-creation of native animal species to reduce economic pressure on communities; and (iv) other projects similar nature.

Environmental Screening

FDC's environmental screening procedures are deficient. They comply with the requirements of the Bolivian legislation, but there is little or no field compliance. Therefore the EA recommends that FDC sets up, with the help of a specialized institution and financed under the Project, an own environmental screening mechanism which would reject non-eligible projects. This screening process would be based on guidelines for the Definition of Environmental Analysis Criteria.

Subproject Environmental Management Guidelines.

FDC staff have little or no knowledge of how certain engineering or management techniques could reduce negative local environmental impacts. To increase environmental awareness and to ensure compliance, FDC should study the environmental impact of past basic infrastructure investments and, on the basis of the study results, elaborate Guidelines for environmental subproject
management. These guidelines should be discussed with FDC staff and contractors and been adopted in the technical design of the works contracts.

**Mitigation and Monitoring Plans**

Moreover, all infrastructure subprojects should (besides an environmental data sheet) have an environmental mitigation and monitoring plan in accordance with the Environmental Law 1333 of 1992. This plan should be based on Guidelines for Environmental Project Management, which should be drawn up under the project.

In particular for the subprojects under consideration in construction of rural roads, bridges and small-scale irrigation, the following mitigation measures should be included: (i) identification of alternative localization if important ecosystems are involved; (ii) localization and topography of earth removal and borrow areas; (iii) solid waste and rubbish disposal; (iv) erosion control measures; (v) construction on drainage canals and water evacuation infrastructure; (vi) waste management of work camps, including disposal of oils and grease; and (vii) resettlement of people.

Implementation of these measures should be monitored by FDC staff and by IDA staff (if budget resources are available) under an environmental monitoring plan.

**Environmental Management in the Subproject Cycle**

The Environmental Assessment document proposes to integrate negative environmental impact mitigation measures in all aspects of the subproject cycle. Such integration is obviously a long-term objective which can only be reached by the end of the project life. Environmental criteria in FDC operational and administration procedures are recommended. Within ex ante phase, project preparation should include environmental criteria for technical design and environmental designs, included in Mitigation and Monitoring Plans, according to management criteria guidelines. This should be a subproject approval requisite. During the implementation phase, aside of project environmental management practices implementation, environmental clauses in contracts of supervisors, executing entities and contractors are suggested. Ex-post environmental administration criteria, including the follow up of projects through the indicators defined in Monitoring Plans. A project environmental monitoring data base is defined.
Annual Environmental Audit

The Environmental Assessment suggests to carry out an annual environmental audit of projects financed by FDC.

Environmental Technical Assistance and Training

A training program on Project Environmental Management and Administration Practices is proposed. This is to be addressed to OTBs, municipal governments, Promoter Agencies, Executing Agencies and FDC central and departmental personnel. VMPPFM should include such training program in the municipal training modules.

FDC would make a formal commitment to include environmental considerations into its daily project work (Norm ISO 14.000 (43)) and set up a special unit with an in-house environmental training program.

Environmental Strengthening of the Municipalities

Environmental planning and management at the municipal level is still very weak in Bolivia. A Municipal Environmental Planning and Natural Resources Management Training Program should be included within the training component of the Project. In order to make it concrete and to multiply its positive effects it is suggested to develop as the basic instrument of the program the Environmental Action Plan and its link to Municipal Development Plans.