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**BOLIVIA**

**PREPARATION OF WATER PROGRAM FOR SMALL COMMUNITIES**

**(BO-T1056)**

**PLAN OF OPERATIONS**

This document was prepared by the project team consisting of: Christopher Jennings, Project Team Leader; Hubert Quille (RE1/EN1); Andres Cossio (COF/CBO); and Alicia Maldonado (RE1/EN1).

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## **BASIC SOCIOECONOMIC DATA**

For basic socioeconomic data, including public debt information, please refer to the following address:

<http://www.iadb.org/RES/index.cfm?fuseaction=externallinks.countrydata>

**INFORMATION AVAILABLE IN THE FILES OF RE1/EN1**

**PREPARATION:**

**EXECUTION:**

**ABBREVIATIONS**

VSB	The Deputy Ministry of Basic Services
PROAGUAS	The Basic Sanitation Program for Small Municipalities
FPS	Productivity and Social Investment Fund

# PREPARATION OF WATER PROGRAM FOR SMALL COMMUNITIES

(BO-T1056)

## I. EXECUTIVE SUMMARY

<b>Beneficiary:</b>	Bolivia		
<b>Executing agency:</b>	Inter-American Development Bank		
<b>Target Beneficiaries:</b>	An estimated 200,000 new rural consumers of water and sanitation services will benefit from the Program to be prepared with assistance from this Technical Cooperation.		
<b>Financing:</b>	IDB: (FSO)	US\$	149,000
	Local:	US\$	10,000
	Total:	US\$	159,000
<b>Objectives:</b>	The specific objective of the operation is to justify a new Water Program for Small Communities in socio-economic terms, based on an evaluation of PROAGUAS and an economic analysis of the proposals for the proposed program.		
<b>Execution timetable:</b>	Execution: 14 weeks; Disbursement: 24 weeks.		
<b>Special contractual conditions:</b>	None		
<b>Exceptions to Bank Policies and Procedures:</b>	None		
<b>Environmental and social review:</b>	The operation will have an indirect environmental and social impact, which is expected to be overwhelmingly positive. The operation was submitted to the CESI for information on December 15, 2006. There were no comments and it was classified as a category “C” project by SDS. See paragraphs 8.1 and 8.2.		
<b>Coordination with Other Donors:</b>	The project team has coordinated with, and continues to coordinate with the other international agencies working in the sector. See paragraphs 2.10 and 2.11.		

## II. BACKGROUND AND JUSTIFICATION

### A. Rural water in Bolivia

- 2.1 According to the Pan-American Health Organization, there are 2 million people living in rural areas of Bolivia without improved water supply. This represents 70% of the rural population. Approximately the same number of rural inhabitants lack basic sanitation. The Pan-American Health Organization also records that infant mortality, an indicator related to good water services, is the highest in the region.

<b>Table 1: Infant mortality, for children under 5 years old. (deaths/1,000 live births)</b>					
<b>Bolivia</b>	Colombia	Ecuador	Paraguay	Peru	Venezuela
<b>92</b>	34	59	25	59	1
Source: PAHO, WHO. Figures are for 2002.					

### B. The Basic Sanitation Program for Small Municipalities, PROAGUAS

- 2.2 The Basic Sanitation Program for Small Municipalities, PROAGUAS, has represented the principal effort to reduce the coverage deficit in rural areas. The total project cost of PROAGUAS was to be US\$ 56 million, financed by IDB loan 1050/SF-BO for US\$ 40 million approved in December 1999, and US\$ 16 million in counterpart funds from the Government of Bolivia. The final contribution of the Government is likely to be US\$ 10 million, as the legal requirement of the municipalities to contribute to these projects has been reduced.
- 2.3 The objectives of PROAGUAS were: (i) Increase coverage and quality of basic sanitation services in communities with populations of less than 5,000 (later changed to 10,000); (ii) Make basic sanitation services sustainable in the medium and long term by involving the community in preparation, implementation and operation of the projects; (iii) Strengthen the capacity of municipalities and other entities executing and operating the projects.
- 2.4 PROAGUAS has three components: (i) Water supply and sanitation works (US\$37.3 million from the original total program value); (ii) Community development (US\$ 4.5 million); (iii) Institutional strengthening (US\$ 3.5 million). The Productivity and Social Investment Fund (FPS<sup>1</sup>) is responsible for managing the water supply and sanitation works component, and for the community development component. The corresponding municipalities procure the works and equipment for the communities. A project coordinating unit of the VSB is responsible for implementing the institutional strengthening component.
- 2.5 PROAGUAS appears to have been implemented efficiently. The final disbursement date has been extended a total of 24 months to July 31<sup>st</sup> 2007, which is less than the time lost before effective implementation started. To date, 90% of

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<sup>1</sup> *Fondo de Inversión Productiva y Social.*

the loan funds have been committed, and all of the remaining funds have been allocated to individual projects. The targets for measuring compliance with the objective of increasing coverage are: 300,000 new beneficiaries from water services in 850 communities (so far PROAGUAS has recorded 416,000 new beneficiaries in 777 communities) and 150,000 beneficiaries from sanitation services in 150 communities (so far, there are 155,000 new beneficiaries in 129 communities). The targets related to community development were: 850 water committees legally constituted and operating (771 achieved to date), and 1900 individuals trained as water or sanitation system operators (1,410 achieved to date). Internal evaluations by the FPS have shown that water committees in rural areas that have benefited from a project operate well with community backing, and PROAGUAS represents an important step in overcoming the problems of sustainability. Communities visited by the IDB project team after putting their individual project into operation were found to be paying sustainable tariffs and to have water committees that were managing their finances transparently.

### **C. The new Program**

- 2.6 Given the pending completion of the PROAGUAS, the Government has requested a further loan of US\$ 21 million from the IDB for a new Program to increase potable water and sanitation coverage in rural areas. The Deputy Ministry of Basic Services (VSB), within the Ministry of Water, will be responsible for the preparation of the new Program, "The Small Community Water Program," (BO-L1013).
- 2.7 The IDB project team undertook an Identification Mission to Bolivia to start the preparation of a new loan from July 24<sup>th</sup> to August 3<sup>rd</sup>, 2006. During the mission, the team from the VSB and the IDB identified various studies necessary for the development, design and justification of the new Program.
- 2.8 The Government of Bolivia has requested technical assistance from the IDB for the following consultancies to support the preparation of the new Program and the proposal for the loan: (i) An evaluation of PROAGUAS, to enable the new Program to take advantages of lessons learned; (ii) A socio-economic analysis of the proposal for the new Program; (iii) An institutional analysis of the VSB proposals for implementing the new Program. The first two consultancies will be used to justify the new program in socio-economic terms and are the subject of this document. The third consultancy will be subject of a separate Technical Cooperation supported by TC Funds.

### **D. Relationship with IDB Country Strategy**

- 2.9 The draft Policy Dialogue Document being prepared by the IDB to initiate the process of defining a strategy to support Bolivia, mentions the grave problem of poverty, and the burden that it places on development. The second strategic area for IDB intervention is defined: "Social protection and community development" and includes, among other activities, activities to improve health indices. Rural

water projects are compatible with this strategy. Rural water projects contribute directly to improvements in health indicators, as well as to a general improvement in well-being.

**E. Coordination with other international agencies**

- 2.10 Several international agencies, including UNICEF, and the government aid agencies from Sweden, Switzerland, the Netherlands and Canada have supported rural water projects in Bolivia. The different agencies have cooperated closely with each other and with the Government of Bolivia in the design of the projects, which all follow closely the model adopted for PROAGUAS, with a strong component for community development. The German Development Bank (KfW) and aid agency (GtZ), as well as the European Union, have supported projects in small municipalities. The World Bank has not provided loans for rural water projects in recent years.
- 2.11 The IDB project team has maintained contact with the other agencies, and has shared information and evaluations of the different projects. During the preparation of the Program, the IDB project team will meet with the other agencies to share lessons learned that may be incorporated in the design of the new Program.

**III. PROJECT DESCRIPTION**

**A. Program goal and purpose**

- 3.1 The goal of the operation is to contribute towards increasing water and sanitation coverage in rural areas. The purpose of the operation is to justify the new program in socio-economic terms, based on an evaluation of PROAGUAS and an economic analysis of the proposals for the new project.
- 3.2 The Technical Cooperation will have two components, each of which will deliver results related to the specific objective.

**B. Components**

**1. Component 1: Evaluation of PROAGUAS**

- 3.3 The evaluation of PROAGUAS will comprise several activities to determine how the program is performing and whether it is likely to meet its objectives. It will also specify lessons that should be incorporated in the new Program. The activities include: (i) A study of 120 communities, selected at random, where projects are operating, to determine the appropriateness of the design, quality of construction and the effectiveness of community development component in ensuring sustainability; (ii) Based on data collected from the study, an estimate of the economic return of PROAGUAS, which will be compared with the return estimated at the time the loan was approved by the IDB; (iii) An analysis of the impact of the Institutional Strengthening component to determine whether this



effected the outcome of PROAGUAS or the capacity of the authorities as intended. (iv) An analysis of the effectiveness and efficiency of the arrangements made for implementing PROAGUAS.

- 3.4 The final report that is produced as part of Component 1 will state clearly the extent to which the PROAGUAS is expected to meet its objectives in terms of the specific development objectives stated in the original loan proposal, the economic return estimated for the project, and the number of beneficiaries. The final report will also note whether the risks to the operation originally identified were overcome, and, if so, how this was achieved. In particular, the final report will comment on the perceived risk inherent in the institutional framework proposed for implementation, what changes were made during implementation and whether or not the arrangements were satisfactory. The final report will make proposals for overcoming weaknesses in PROAGUAS in the design of the new Program.

## **2. Component 2: Economic analysis of the Program**

- 3.5 This component will analyze the socio-economic aspects of the new Program. It will calculate the economic return that will result from the Program, provide a guide for the most efficient use of subsidies based on willingness to pay for water services, and establish rules for the eligibility of individual projects within the Program.
- 3.6 The calculation of the economic return for the new Program, and consequently the socio-economic justification, will be based on estimates of households' willingness to pay for water services based on an econometric analysis of survey data and an estimate of the total costs of the Program. The survey will cover 1000 individuals in 40 small rural communities.
- 3.7 The econometric analysis should generate figures for rural households' willingness to pay for water and sanitation services and how it is affected by characteristics of the service (current and projected) and socioeconomic factors. The study should use these figures to estimate the communities' financial contribution to the operation and maintenance costs of the projects. It will also determine the extent to which the communities can pay for the capital cost, besides operation and maintenance, either by a cash contribution, direct contribution in the form of labor or by meeting debt-service costs. Accurate information in this area will help the Government to adopt a policy to subsidize the construction of rural water projects in the most efficient way.
- 3.8 Finally, in the case that the Government decides to partially subsidize the capital cost of the projects, this component will develop rules for allocating subsidies efficiently, and practical indicators that can be used in the field for assigning the appropriate level of subsidy.

- 3.9 A final report of the findings of the economic analysis will be produced to complete the tasks incorporated in Component 2. The final report will also include recommendations and proposals.

#### IV. COST AND FINANCING

##### A. Summary cost table

- 4.1 The total cost of the operation is estimated to be US\$159,000. This cost will be met by the non-reimbursable Technical Cooperation proposed in this Plan of Operations, using resources from the Fund for Special Operations (FSO) of the IDB, and US\$10,000 in kind, for local services that will be provided by the VSB. An overall estimate of the cost of the operation is given in Table 2.

Table 2: Cost estimate			
Type of expense	FSO	Counterpart	TOTALS
<b>Component 1: Evaluation of PROAGUAS</b>			
Total Consultancy Fees:	39,000	---	39,000
Total Miscellaneous Expenses:	32,000	5,000	37,000
<b>TOTAL COMPONENT 1:</b>	<b>71,000</b>	<b>5,000</b>	<b>76,000</b>
<b>Component 2: Economic analysis of the Program</b>			
Total Consultancy Fees:	46,500	---	46,500
Total Miscellaneous Expenses:	31,500	5,000	36,500
<b>TOTAL COMPONENT 2:</b>	<b>78,000</b>	<b>5,000</b>	<b>83,000</b>
<b>GRAND TOTAL:</b>	<b>149,000</b>	<b>10,000</b>	<b>159,000</b>

##### B. Sustainability

- 4.2 The new Program will be designed to ensure the sustainability of rural water services. This was also a major factor in the design of PROAGUAS, and this Technical Cooperation will, among other things, analyze the results so far to judge whether rural water projects constructed under that program are sustainable. The new Program will incorporate lessons learned, identified by this Technical Cooperation, that will ensure sustainability.

#### V. EXECUTING AGENCY AND MECHANISM

##### A. Executing Agency

- 5.1 The Government of Bolivia has requested that the IDB be responsible for contracting the necessary consultants. The IDB will be the executing agency.

##### B. Executing mechanism

- 5.2 The IDB will contract a consulting firm, or a consortium of firms and individual consultants, for each of the two components of the operation.

- 5.3 The IDB will coordinate all activities with the VSB. In particular, the IDB will ensure that the VSB is involved in the writing of terms of reference for the consultancies, the selection of the consultants, undertaking the work, and approving the final reports.

**C. Program implementation readiness**

- 5.4 Detailed outlines of the terms of reference for the contracting of the consulting firms or consortia have been prepared.

**D. Execution period and disbursement schedule**

- 5.5 The TC will be executed in 14 weeks and disbursement should take place over 24 weeks.

**E. Procurement**

- 5.6 The IDB will invite international and Bolivian consulting firms, or consortia of firms, to participate in the project. The requesting of bids, the selection and contracting of the consulting firms, or consortia of firms will be in accordance with IDB policy, GN-2350-7. As required by the Policy, a Procurement Plan indicating the method of selection and hiring of consulting firms, or consortia, is attached to this Plan of Operations (see Annex II).

**VI. MONITORING AND EVALUATION**

**A. Monitoring**

- 6.1 The IDB will require the consulting firms or consortia to provide a work plan including a detailed schedule of activities and timetable. The IDB team will continually monitor progress against that stated in the work plan. The IDB will evaluate the quality of the work as the consulting firms or consortia produce initial and interim reports. The VSB will be consulted in the evaluation of the work as it proceeds.

**B. Technical and basic responsibility**

- 6.2 The Environmental and Natural Resources Management Division, Region 1 (RE1/EN1), of the IDB will be responsible for the overall management, the contracting of consulting firms or consortiums, and for all technical aspects of the operation. The Country Office of the IDB in Bolivia (COF/CBO) will be responsible for disbursements.

**C. Progress and final reports**

- 6.3 In addition to the final reports (see paragraphs 3.4 and 3.9), each consulting firm, or consortium, will produce initial and interim reports to facilitate monitoring of their progress.

## **VII. PROGRAM BENEFITS AND RISKS**

### **A. Program benefits and developmental impact**

- 7.1 The operation will indirectly benefit approximately the 200,000 new rural consumers that will result from the successful implementation of the new rural water supply Program.

### **B. Target Beneficiaries**

- 7.2 An estimated 200,000 new rural consumers of water and sanitation services will benefit from the Program to be prepared with assistance from this Technical Cooperation.

### **C. Risks**

- 7.3 Loan 987/SF-BO for PROAGUAS is still not completely disbursed so the evaluation to be carried out as Component 1, is not an ex-post evaluation. Although the majority of the projects to be financed have already been put into operation, it often takes two or three years before it is possible to determine whether a program has fully achieved its objectives. The original Loan Proposal states that the Government will not carry out an ex-post evaluation, but will collect certain data to facilitate a possible evaluation. The project team considers that, given the quality of the record-keeping, the present operation will produce a true reflection of the achievements of PROAGUAS compared with the original objectives and will provide a sound basis for designing the new Program.

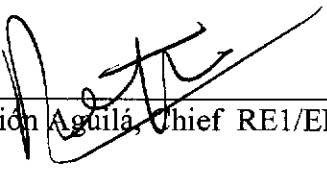
## **VIII. ENVIRONMENTAL AND SOCIAL REVIEW**

### **A. CESI Review**

- 8.1 As a Technical Cooperation, this operation will have no negative environmental or associated social impacts. An Environmental Analysis will be carried out, and an Environmental Management Plan will be produced during the preparation of the new Program (BO-L1013). The impact of the new Program is expected to be overwhelmingly positive.
- 8.2 The present operation was submitted for the information of the Environmental and Social Review Committee and returned with no comments or remarks. SDS classified it as a Category "C" operation in accordance with the IDB's Environment and Social Safeguards Policy.

### IX. RECOMENDATION

- 9.1 Asunción Aguilá, Division Chief, recommends the approval of the present Plan of Operations.

  
Asunción Aguilá, Chief RE1/EN1

1/5/07

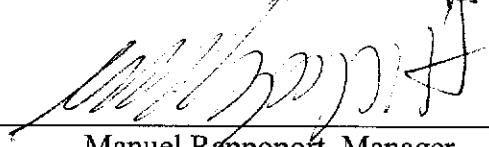
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### X. APPROVAL

- 10.1 The Manager of Regional Operations Department 1, with the authority delegated to him by the President of the Bank (DE-23/87 y CC-5290), authorizes the use of the net resources of the Fund for Special Operations (FSO) for 2007 up to US\$ 149,000 to finance the present operation.

Vo.Bo.   
Luisa Rains, RE1/DEP

1/10/07  
[Date]

  
Manuel Rappoport, Manager  
Regional Operations Department 1

1/10/07  
[Date]

# Preparation Of Water Program For Small Communities

(BO-T1056)

ANNEX I

Detailed Budget

## Evaluation of PROAGUAS

### 1 Evaluation of impact of individual projects

Study of a sample of 120 community projects selected at random. Study will determine: quality of construction, standard of maintenance, financial situation, tariff payments.

Snr. economist	days	5	400	2000
Rural water specialist (survey design & training)	days	10	300	3000
Social scientist (survey design & training)	days	5	300	1500
Surveyors [5 x 5days training + 25 days polling]	days	150	60	9000

15500

### 2 Evaluation of impact of Community Development

Study to determine the effectiveness of the Community Development component of PROAGUAS. Basic information will come from the study of individual projects. The study will analyse the scope, timing and sequence of activities. Impact will be determined related to financial and operational sustainability.

Snr. economist	days	5	400	2000
Social scientist	days	15	300	4500

6500

### 3 Evaluation of impact of Institutional Strengthening

Study to determine the effectiveness of the institutional strengthening component and its relevance to meeting the Program's objectives.

Snr. economist	days	5	400	2000
Institutional specialist	days	20	300	6000

8000

### 4 Evaluation of the institutional arrangements for implementation

Study of the efficiency with which the FPS and UCP-VSB implemented the Program. The study will consider the appropriateness of using two agencies. It will study the effectiveness of the organization of FPS, especially in the regions. The study will report on the effectiveness of the municipalities and communities in carrying out their roles. The study will report on the total cost of implementing the Program.

Snr. economist	days	5	400	2000
Institutional specialist	days	10	300	3000

5000

## 5 Economic return

Study to determine the economic return on the Program and to compare it with the estimate in the original project proposal.

Snr. economist	days	5	400	2000		
Economist	days	10	200	2000		
				4000		0
Total fees				39000		
Overhead on fees				0		
6 Miscellaneous						
International airfares	no	5	1500	7500		
Per diem for internationals	days	60	200	12000		
Per diem and transport for surveyors	days	150	80	12000		
Office space and equipment, secretarial services	days	30	85			2550
Contingency				500		2450
				71000		5000

## Evaluation of PROAGUAS

### Alternative breakdown

	unit	no	unit rate (US\$)	total TC (US\$)	total local (US\$)
Snr. economist	days	25	400	10000	
Rural water specialist	days	10	300	3000	
Social scientist	days	20	300	6000	
Surveyors [5 x 5days training + 25 days polling)]	days	150	60	9000	
Institutional specialist	days	30	300	9000	
Economist	days	10	200	2000	
Total consultancy fees				39000	
Overhead:					
Miscellaneous					
International airfares	no	5	1500	7500	
Per diem for internationals	days	60	200	12000	
Per diem and transport for surveyors	days	150	80	12000	
Office space and equipment, secretarial services	days	30	85		2550
Contingency	sum			500	2450
Total miscellaneous expenses				32000	5000
				71000	5000

## Economic analysis of Program

### 1 Survey

To carry out a detailed survey to determine the capacity of rural communities to pay for water and sanitation services. The contingent valuation methodology will be used. The survey will cover 1000 dwellings in 40 different communities.

Timetable for the survey and analysis of results will be:

- . Survey design = 2 weeks
- . Survey testing and fine-tuning = 2 weeks
- . Survey = 10 weeks
- . Analyse results and report = 3 weeks

### Economic analysis of Program

	unit	no	unit rate (US\$)	total TC (US\$)	total local (US\$)
Principal economist	days	30	600	18000	
Survey supervisor	days	70	150	10500	
Surveyors (5 x 12 weeks)	days	300	60	18000	
Total consultancy fees				46500	0
<u>Miscellaneous</u>					
International airfares	no	2	750	1500	
Per diem for internationals	days	30	200	6000	
Per diem and transport for surveyors	days	300	80	24000	
Office space and equipment, secretarial services	days	35	100		3500
Contingency					1500
Total miscellaneous expenses				31500	5000
				78000	5000

### Summary Cost Estimate for BO-T1056

#### Evaluation of PROAGUAS

Total consultancy fees	39000	0
Total miscellaneous expenses	32000	5000
Total Component 1	71000	5000

#### Economic analysis of Program

Total consultancy fees	46500	0
Total miscellaneous expenses	31500	5000
Total Component 2	78000	5000
<b>GRAND TOTAL FOR BO-T1056</b>	<b>149000</b>	<b>10000</b>



## Preparation Of Water Program For Small Communities (BO-T1056)

## Country: Bolivia

Executing Agency: IDB

Project: Preparation of Water Program for Small Communities.

Project number: BO-T1056

**Objectives and components of project:** The purpose of the Technical Cooperation is to justify a new water program for small communities in socio-economic terms. The Technical Cooperation will have two components, each of which will deliver results related to the specific objective: (i) An evaluation of PROAGUAS, and (ii) An economic analysis of the proposals for the new project.

Estimated approval date: January 2007.

Estimated date for the signing of the Technical Cooperation agreement: February 2007.

Estimated date of final disbursement: July 31<sup>st</sup>, 2007.

Office responsible for Procurement Plan:

Environmental and Natural Resources Management Division, Regional Operations  
Department 1

1300 New York Ave, N.W. (Stop E1005)

Washington DC, 20577, USA.

Description and estimated cost	Method (2)	Source  IDB <sup>(1)</sup>	Prequal.	Dates		Status
				Publi- cation	Contract	
Contracting of consulting firm to undertake an analysis of PROAGUAS. US\$71,000	IPB	100%	Yes	January 2007	March 2007	Pending
Contracting a consulting firm to undertake a economic analysis of the proposed water program for small communities. US\$78,000	IPB	100%	Yes			Pending

<sup>(1)</sup> The Deputy Ministry of Basic Services will provide a counterpart contribution in kind to cover the cost of local office services.

<sup>(2)</sup> International Public Bidding.

## **BOLIVIA**

### **Preparación del Programa de Agua para Comunidades Pequeñas (BO-T1056)**

#### **ANEXO III**

#### **Términos de Referencia**

#### **Componente 1: Evaluación de PROAGUAS**

##### **Objetivo**

1. El propósito de la consultoría es analizar el Programa de Saneamiento Básico para Pequeñas Municipalidades, PROAGUAS, para determinar su efectividad, eficiencia, y la sostenibilidad de los proyectos individuales construidos.

##### **Antecedentes**

2. Durante años recientes, el Programa de Saneamiento Básico para Pequeñas Municipalidades, PROAGUAS, ha representado el esfuerzo principal del Gobierno de Bolivia en ampliar cobertura de servicios de agua potable y saneamiento en las áreas rurales. PROAGUAS es sujeto de un préstamo de US\$ 40 millones del BID (préstamo 1050/SF-BO). Se ha desembolsado 90% de los recursos del préstamo y la fecha de último desembolso es el 30 de julio de 2007. El Gobierno de Bolivia proporciona US\$ 10 millones como aporte local.
3. Los objetivos de PROAGUAS son: (i) incrementar la cobertura y calidad de los servicios de saneamiento básico en poblaciones de hasta 10,000 habitantes; (ii) fortalecer la capacidad operacional de las municipalidades y otras entidades ejecutoras y operadores de estos proyectos; y (iii) buscar la autosostenibilidad de los servicios de saneamiento básico en el mediano y largo plazo, involucrando a la comunidad en la preparación, ejecución y operación de los proyectos de saneamiento básico.
4. PROAGUAS comprende tres componentes: (i) proyectos de obras de abastecimiento de agua potable y saneamiento en comunidades de hasta 10,000 habitantes en todo el país (US\$ 37,3 millones); (ii) desarrollo comunitario para que las comunidades participen en la preparación, ejecución, operación y mantenimiento de los proyectos construidos, como una manera de asegurar la sostenibilidad de los servicios (US\$ 4,5 millones); y (iii) fortalecimiento institucional a las municipalidades, en donde se financian consultorías para la capacitación de personal (US \$3,5 millones). Los primeros dos componentes están ejecutados por el Fondo de Inversión Productiva y Social (FPS), y el último componente está ejecutado por el Viceministerio de Servicios Básicos (VSB).
5. El GoBO ha solicitado al BID un préstamo para financiar un nuevo Programa de Agua para Comunidades Pequeñas, basado en los principios de PROAGUAS. El equipo del BID hizo una misión de identificación en la cual se definió la necesidad

de llevar a cabo ciertas consultorías durante la preparación del nuevo Programa. El BID ha preparado una Cooperación Técnica para financiar dichas consultorías. Dentro de las consultorías, se encuentra la consultoría de la referencia.

6. El BID contratará a una firma consultora, o un consorcio de firmas o consultores individuales, (el Consultor) para llevar a cabo la consultoría (la Consultoría).

#### **Alcance**

7. El Consultor realizará todas las actividades necesarias para el cumplimiento del objetivo de la consultoría, entre las que se encuentran las siguientes:
8. El Consultor diseñará un estudio, basado en una encuesta, para evaluar los proyectos individuales. El Consultor diseñará un formulario que deberá ser llenado por las comunidades.
9. El Consultor seleccionará, aleatoriamente, 120 proyectos individuales, financiados por el PROAGUAS, ya terminados y operando.
10. El Consultor conformará, creará y capacitará un equipo de encuestadores en las tareas necesarias para llenar los formularios de la encuesta.
11. El Consultor liderará el equipo de encuestadores a visitar a las comunidades.
12. Para averiguar la sostenibilidad de los proyectos individuales, el Consultor determinará al menos: (i) si los diseños de los proyectos fueron convenientes, (ii) la calidad de construcción de las obras, (iii) la calidad de operación y mantenimiento, (iv) el estado financiero, y (v) el estado de la cobranza de tarifas.
13. Para evaluar la efectividad del componente de desarrollo comunitario, el Consultor determinará la información proporcionada a la comunidad, la capacidad recibida y el conocimiento de los beneficiarios de las implicaciones de los costos de la operación, mantenimiento y tarifas.
14. Basado en la información recolectada, el Consultor estimará el retorno económico del Programa, lo que se comparará con el cálculo del retorno económico previsto en la propuesta original.
15. El Consultor evaluará el componente de fortalecimiento institucional para averiguar si los resultados contribuyeron al éxito del Programa.
16. El Consultor evaluará la institucionalidad aplicada a la ejecución del Programa para averiguar su eficiencia. Estudiará la efectividad de la organización del Fondo de Inversión Productiva y Social, especialmente la estructura y capacidad técnica regional. Estudiará la eficiencia del VSB en ejecutar el componente de fortalecimiento institucional. Estudiará la efectividad de las municipalidades y las comunidades en desarrollar sus papeles designados.
17. El Consultor trabajará en estrecha coordinación con el equipo técnico del VSB. El equipo del Consultor participará en la misión de orientación y la misión de análisis del equipo técnico del BID.

### **Productos**

18. El Consultor entregará a los equipos del BID y VSB un Informe Preliminar de un máximo de 10 páginas dentro de 10 días del arranque de la Consultoría en el cual se definirá la metodología a ser adoptada. El Informe Preliminar incorporará un calendario fijo para llevar a cabo la Consultoría.
19. El Consultor entregará a los equipos del BID y VSB un Informe Intermedio que incorporará los resultados preliminares de la encuesta.
20. El Consultor entregará a los equipos del BID y VSB un borrador del Informe Final que incorpore todos los resultados procesados de la encuesta y el análisis posterior. El equipo del BID informará al Consultor de los comentarios de los equipos del BID y VSB, dentro de un periodo de tres semanas. El Consultor entregará el Informe Final definitivo, que tome en cuenta los comentarios de los equipos del BID y VSB.

### **Calendario**

21. El cuadro siguiente define, en términos preliminares, las fechas relevantes de la consultoría. El Consultor confirmará las fechas reales en el Informe Preliminar.

<u>Actividad</u>	<u>Semana</u>
Consultoría iniciada	0
Informe Preliminar entregado	2
Misión de orientación del BID	2
Encuesta diseñada	4
Equipo de encuestadores dimensionado, conformado y capacitado	5
Estudio de comunidades terminado.	10
Informe Intermedio entregado	11
Retorno económico calculado	12
Efectividad de componentes determinado	13
Eficiencia de ejecución determinada	13
Borrador del Informe Final entregado	14
Misión de análisis del BID	14
Informe Final, versión definitiva, entregado	16

### **Perfil del Consultor**

22. El trabajo objeto de este contrato deberá ser ejecutado por una empresa consultora, o consorcio que cuente con experiencia en: (i) análisis económico de proyectos de obras múltiples, (ii) desarrollo comunitario en áreas rurales, y (iii) proyectos rurales de agua y saneamiento.
23. El equipo del Consultor contará con un equipo de técnicos en las siguientes áreas: (i) Economista, quien actuará como líder del equipo, (ii) Especialista en agua y saneamiento rural, (iii) Especialista social, y (iv) Especialista institucional.

## **BOLIVIA**

### **Preparación del Programa de Agua para Comunidades Pequeñas (BO-T1056)**

#### **ANEXO IV**

#### **Términos de Referencia**

#### **Componente 2: Análisis Económico**

##### **Objetivo**

1. El propósito de la consultoría es analizar las propuestas para el Programa de Agua de Comunidades Pequeñas para mostrar su viabilidad en términos socio-económicos.

##### **Antecedentes**

2. El GoBO ha solicitado al BID un préstamo de US\$ 21 millones para financiar un nuevo Programa de Agua para Comunidades Pequeñas. El nuevo Programa será basado en experiencia en otros proyectos ejecutados en Bolivia, notablemente el Programa de Saneamiento Básico para Pequeñas Municipalidades, PROAGUAS. El nuevo Programa tendrá como propósito específico: ampliar cobertura de servicios de agua potable y saneamiento en forma sostenible en las áreas rurales. La meta será entregar servicios de agua y saneamiento a un mínimo de 200,000 nuevos usuarios. El Programa dispondrá de tres componentes: (i) construcción de proyectos de obras de agua y saneamiento en comunidades de hasta 10.000 habitantes que no han recibido financiamiento para proyectos parecidos durante cinco años (aproximadamente US\$15 millones del préstamo), (ii) desarrollo comunitario, que las comunidades valorizan los servicios, están dispuestos a estar involucrado en la toma de decisiones relacionadas con el diseño y construcción de los proyectos y estén dispuestos a pagar las tarifas necesarias para asegurar sostenibilidad (US\$ 2 millones), y (iii) fortalecimiento institucional para las entidades ejecutoras del Programa (US\$ 1 millón).
3. El equipo del BID hizo una misión de identificación en la cual se definió la necesidad de llevar a cabo ciertas consultorías durante la preparación del nuevo Programa. El BID ha preparado una Cooperación Técnica para financiar dichas consultorías. Dentro de las consultorías, se encuentra la consultoría de la referencia.
4. El BID contratará a una firma consultora (el Consultor) para llevar a cabo la consultoría (la Consultoría).

##### **Alcance**

5. El Consultor llevará una encuesta de un mínimo de 1.000 individuos en 40 comunidades rurales en las resultados de la cual se basarán las conclusiones de la Consultoría. En este contexto, el Consultor realizará todas las actividades necesarias

para el cumplimiento del objetivo de la Consultoría, entre las que se encuentran las siguientes:

6. El Consultor estudiará las propuestas para el nuevo Programa, especialmente: (i) los costos de los servicios, la contribución al costo de inversión por parte de la comunidad, y los costos de operación y mantenimiento, y (ii) los niveles de servicios a estar proporcionados basados en diferentes niveles de costo.
7. El Consultor diseñará la encuesta y el formulario a estar llenado.
8. El Consultor seleccionará, aleatoriamente, las 40 comunidades a estar incorporadas en el estudio en una manera apta para entregar resultados no sesgados.
9. El Consultor conformará, creará y capacitará un equipo de encuestadores en las tareas necesarias para llenar los formularios de la encuesta. El Consultor llevará a cabo un estudio preliminar, en forma de proyecto piloto, para probar y afinar el diseño de la encuesta y formulario.
10. El Consultor liderará el equipo de encuestadores a visitar a las comunidades.
11. El Consultor llevará un análisis econométrico utilizando los datos generados por la encuesta.
12. De los resultados de la encuesta, basado en el rango socio-económico de los habitantes de las comunidades, el Consultor determinará: (i) curva(s) de demanda para servicios de agua y saneamiento, (ii) disponibilidad de pagar para distintos niveles de servicio, (iii) el retorno socio-económico del Programa, (iv) el nivel de subsidios más eficiente (que permita cubrir el número máximo de beneficiarios), y (v) reglas fáciles de aplicar para determinar el nivel de subsidio que debería recibir cada comunidad.
13. La Consultoría se llevará a cabo en paralelo con otras consultorías. El Consultor trabajará en estrecha coordinación con los demás consultores, así como el equipo técnico del Vice-ministerio de Servicios Básicos (VSB). El equipo del Consultor participará en la misión de orientación y la misión de análisis del equipo técnico del BID.

### **Productos**

14. El Consultor entregará a los equipos del BID y VSB un Informe Preliminar de un máximo de 10 páginas dentro de 10 días del arranque de la Consultoría en el cual se definirá la metodología a ser adoptada. El Informe Preliminar incorporará un calendario fijo para llevar a cabo la Consultoría.
15. El Consultor entregará a los equipos del BID y VSB un Informe Intermedio que incorporará los resultados preliminares de la encuesta.
16. El Consultor entregará a los equipos del BID y VSB un borrador del Informe Final que incorpore todos los resultados procesados de la encuesta y el análisis posterior. El equipo del BID informará al Consultor de los comentarios de los equipos del BID y VSB, dentro de un periodo de tres semanas. El Consultor entregará el Informe Final definitivo, que tome en cuenta los comentarios de los equipos del BID y VSB.

### **Calendario**

17. El cuadro siguiente define, en términos preliminares, las fechas relevantes de la consultoría. El Consultor confirmará las fechas reales en el Informe Preliminar.

<u>Actividad</u>	<u>Semana</u>
Consultoría iniciada	0
Informe Preliminar entregado	2
Misión de orientación del BID	2
Encuesta diseñada	4
Equipo de encuestadores dimensionado, conformado y capacitado	5
Estudio de comunidades terminado.	10
Informe Intermedio entregado	11
Borrador del Informe Final entregado	14
Misión de análisis del BID	14
Informe Final, versión definitiva, entregado	16

### **Perfil del Consultor**

18. El trabajo objeto de este contrato deberá ser ejecutado por una empresa consultora, o consorcio que cuente con experiencia en el análisis socio-económico de proyectos múltiples de agua y saneamiento en áreas rurales.
19. El equipo del Consultor contará con un equipo de comprende al menos: (i) Economista, quien actuará como líder del equipo, y (ii) Especialista en la supervisión de encuestas.

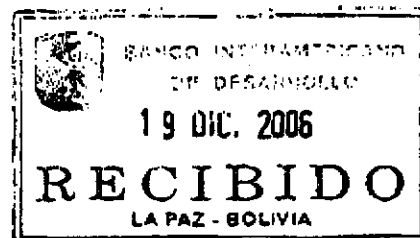
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REPÚBLICA DE BOLIVIA  
MINISTERIO DE PLANIFICACION  
DEL DESARROLLO  
Viceministerio de Inversión Pública  
y Financiamiento Externo

La Paz, 19 DIC 2006  
VIPFE/DGFE/NEG-04813/2006

Señor  
Joel Branski  
Representante  
BANCO INTERAMERICANO DE DESARROLLO  
Presente



Ref.: SOLICITUD ASISTENCIA TECNICA PARA  
ELABORAR Y ESTRUCTURAR EL NUEVO  
PROGRAMA DE AGUA POTABLE -  
CONSULTORIAS

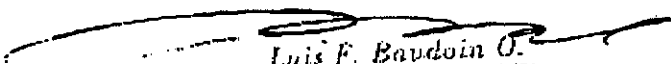
Señor Representante:

Mediante la presente, a nombre del Gobierno solicito a usted la cooperación del Banco Interamericano de Desarrollo (BID) para otorgar Asistencia Técnica con la finalidad de elaborar y estructurar el nuevo Programa de Agua Potable y pueda incluir las siguientes consultorias:

- Consultoria para la Evaluación del Programa de Saneamiento Básico para Pequeños Municipios - PROAGUAS
- Consultoria Análisis Socioeconómico de la Propuesta del nuevo Programa de Agua Potable y Saneamiento para Zonas Rurales de Bolivia
- Consultoria Análisis Institucional para la Ejecución del nuevo Programa

Asimismo, en conformidad a la solicitud planteada por el Viceministerio de Servicios Básicos dependiente del Ministerio del Agua a través de la nota adjunta MDA/VSF N.E.1083/06, agradeceré considerar que las contrataciones las pueda realizar el Banco, a fin de agilizar los procesos.

Con este motivo, saludo a usted muy atentamente.

  
Luis F. Baudoin O.  
VICEMINISTRO DE INVERSIÓN PÚBLICA  
Y FINANCIAMIENTO EXTERNO  
MINISTERIO DE PLANIFICACIÓN DEL DESARROLLO





República de Bolivia

Ministerio del Agua  
Vice ministerio de Servicios BásicosLa Paz, 22 de noviembre de 2006  
Cite: MDA/VSF N. E. 1083 /06

Señor

Lic. Fernando Jiménez

Vice ministro de Inversión Pública y Financiamiento Externo a. i.  
MINISTERIO DE PLANIFICACIÓN

Presente



De mi consideración:

Con referencia a la nota que se le envió, con Cite: MDA/VSF N.E. 1074/06, de fecha 21 de noviembre del presente, en la cual solicito a usted realizar las gestiones pertinentes con la finalidad de concretar la Asistencia Técnica para elaborar y Estructurar el Nuevo Programa de Agua Potable, deseo completar esta solicitud especificando las tres consultorias en las que requerimos la cooperación del Banco Interamericano de Desarrollo:

1. Consultoría para la evaluación del Programa de Saneamiento Básico para Pequeños Municipios 1050/SF-BO "PROAGUAS".
2. Consultoría para un Análisis Socioeconómico de la Propuesta del nuevo Programa de Agua Potable y Saneamiento para la zona Rural de Bolivia.
3. Consultoría para un Análisis Institucional para la Ejecución del mismo nuevo programa.

Asimismo, solicitamos que sea el mismo Banco Interamericano de Desarrollo – BID, quien realice las contrataciones.

Luis Sánchez Gómez C.  
Vice ministro de Servicios Básicos  
MINISTERIO DEL AGUA

LSGC/Daysi  
c.c. Arch  
c.c. Joel Branski - BID