

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

BOLIVIA

**NATIONAL IRRIGATION PROGRAM WITH A
WATERSHED APPROACH**

(BO-L1021)

LOAN PROPOSAL

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Electronic Links
Required
Annual Work Plan http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1670311
Monitoring and Evaluation Arrangements and Baseline http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1670313
Complete Procurement Plan http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1667641
Environmental and Social Management Report http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1711735
Social and Environmental Impact Analysis http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1669396
Environmental Classification and Safeguard Screening Form http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1668594
Optional
Description and Evaluation of Designs for the 11 Projects in the Portfolio http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1670315
Economic Evaluation of the Program http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1668408
Analysis of Institutional Capacity for Irrigation in Bolivia http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1670125
Design Proposal for the National Irrigation Information System http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1670130
Letters of Intent from Departmental Governors http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1669419
Draft Operating Regulations http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1668447
Training and Institution-strengthening http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1670320

ABBREVIATIONS

ESR	Environmental and social review
FPS	Fondo Nacional de Inversión Productiva u Social [National Productive and Social Investment Fund]
FSO	Fund for Special Operations
ICAS	Institutional Capacity Assessment System
IRR	Internal rate of return
OC	Ordinary Capital
OR	Operating Regulations
PCU	Program Coordinating Unit
SEDERI	Servicio Departamental de Riego [Departmental Irrigation Service]
SENARI	Servicio Nacional de Riego [National Irrigation Service]
SNIR	Sistema Nacional de Información de Riego [National Irrigation Information System]
VMR	Vice Ministry of Irrigation

PROJECT SUMMARY

BOLIVIA NATIONAL IRRIGATION PROGRAM WITH A WATERSHED APPROACH (BO-L1021)

Financial Terms and Conditions					
Borrower: Republic of Bolivia			Amortization period:	OC 30 years	FSO 40 years
			Grace period:	5.5 years	40 years
			Disbursement period:	5	5
Executing agency: Ministry of Water			Interest rate:	Variable	0.25%
			Inspection and supervision fee:	*	N/A
			Credit fee:	*	N/A
Source	US\$ millions	%	Currency:	U.S. dollars from the Single Currency Facility	U.S. dollars
IDB (Ordinary Capital)	24.0	67.0			
IDB (FSO)	10.3	28.8			
Local	1.5	4.2			
Total	35.8	100.0			
Project at a glance					
Project objective and description: The objective of the proposed program is to increase agricultural income for rural households by expanding the area of farm land under irrigation and improving efficiency in the use and distribution of water for agricultural purposes. To meet this objective, program activities will be carried out through two components: (i) investment to develop community irrigation; and (ii) water management for irrigation with a watershed approach.					
Special contractual conditions: Conditions precedent to the first disbursement of the loan: (i) selection of the Program Coordinator (see paragraph 3.3); (ii) signature and entry into force of a tripartite agreement between the executing agency, the National Irrigation Service (SENARI), and the National Productive and Social Investment Fund (FPS), establishing their obligations and responsibilities (see paragraph 3.1); and (iii) evidence that the program Operating Regulations have entered into force (see paragraph 3.8). <u>Execution conditions:</u> Signature of the agreement between the executing agency and the respective irrigation associations, under the terms agreed to with the Bank, is a condition precedent to start-up of bidding for the related works (see paragraph 3.10).					
Exceptions to Bank policies: None.					
Procurement: All procurements for this program will be made in accordance with Bank policies and procedures, as stipulated in documents GN-2349-7 and GN-2350-7. No exceptions to Bank policies are anticipated.					
Project consistent with country strategy: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Project qualifies as: SEQ <input checked="" type="checkbox"/> PTI <input checked="" type="checkbox"/> Sector <input checked="" type="checkbox"/> Geographic <input type="checkbox"/> Headcount <input type="checkbox"/>					
ESR verification date: 28 March 2008, ESR 12/08					

* The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the applicable provisions of the Bank's policy on lending rate methodology for Ordinary Capital loans. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem addressed, and rationale

1. Importance of irrigation in the context of rural poverty in Bolivia

- 1.1 Almost 60% of Bolivia's population lives in poverty, and the rate is almost 80% in rural areas. At the national level, 37% of the population is living in extreme poverty, while this rate is 55% in rural areas. Agriculture is very important in rural regions, as it employs 40% of the economically active population and contributed an average of 15% to the national GDP between 1996 and 2006. The strategic importance of the agricultural sector has become even more pronounced with the sharp increase in food prices in Bolivia and in the global economy, especially since the end of 2007.
- 1.2 Effective access to water by campesinos and more efficient use of irrigation water are essential for increasing Bolivia's agricultural productivity. Agriculture is the primary user of water resources, accounting for 86% of total water withdrawals. However, current irrigation water use is inefficient. Bolivia has 226,500 hectares of land under irrigation, accounting for 11% of total annual crop area. In Bolivia, the areas under irrigation are in the arid and semi-arid regions of the three major watershed areas of the country, located respectively in the Altiplano, the Inter-Andean valleys, and the eastern plains. Of the country's nine departments, only Beni and Pando, in the plains, do not require irrigation systems because of high levels of rainfall. In the Altiplano and the Inter-Andean Valleys, drought and frost are the biggest threats to agricultural production.
- 1.3 There are more than 5,000 irrigation systems in Bolivia, covering a total area of 226,000 hectares. The performance of many of these systems is inadequate because of (i) the scarcity of water from intermittent sources; (ii) the absence of regulatory works, stemming from the lack of a watershed approach in which water use rights are granted based on verification of the water balance; (iii) the unreliability of the irrigation infrastructure, leading to low storage and conveyance efficiency; (iv) inadequate water management coordination, particularly with regard to distribution; and (v) the fact that the best irrigation technologies available are not used on steep plots, due to the lack of needed comprehensive technical assistance.
- 1.4 The Bank financed the National Irrigation Program (loan 964/SF-BO) from 1996 to 2005. The objective of this operation, totaling US\$32.8 million and financed with a US\$25.6 million Bank loan and US\$2 million in cofinancing from the Federal Republic of Germany, was to increase agricultural production in economically depressed areas through investments for improving and rehabilitating small irrigation systems. This program produced the following outputs: (i) 158 irrigation systems were built, improving 8,000 hectares and incorporating 14,053 new hectares of farmland (at an average cost of US\$1,081 per hectare), benefitting 12,315 families in 313 campesino communities; (ii) 158 irrigation associations were strengthened; (iii) 1,060 irrigation technicians were trained; and (iv) a national inventory was established along with seven diagnostic studies and departmental

irrigation plans. With regard to the development objective of the operation, a 2003 evaluation confirmed an average 138% increase in income for beneficiary families, with a 60% to 80% improvement in food security (baseline: 10%-20%). Based on a sample of 27 irrigation projects, the evaluation also concluded that the profitability of the systems, measured by the internal rate of return (IRR) was 15.4% in the Altiplano, 13.8% in the Inter-Andean Valleys, and 13.5% in the plains. The irrigators generally covered the operating and maintenance costs for the systems, which favored the sustainability of the investments.

- 1.5 The final evaluation of loan 964/SF-BO, financed with technical-cooperation resources from the Bank (operation ATN/SF-9883-BO), presented a number of lessons learned, which have enriched the design of the strategy and investment plan for the proposed program. The first lesson is that adopting a watershed approach for irrigation systems is necessary for effective water management and for ensuring sustainability in the quantity and quality of water for agricultural use. The watershed approach makes it possible to ensure irrigating farmers' water rights reflect the actual availability of water from the source. The second lesson is that, while irrigating farmers may be able to ensure the operation and sustainability of irrigation systems, they do not have practices for optimizing water use and enhancing their productivity, for which comprehensive technical assistance is needed. Increasing productivity requires the introduction of agronomic practices at the farm level and a better linkage to market opportunities on the part of producers. The third lesson is that the management of irrigation systems requires a water resources information system that facilitates water management decision-making, as well as good practices for awarding, building, and overseeing works and different aspects of system management by the irrigators.
- 1.6 The program is consistent with the Bank's current country strategy (document GN-2312-2) and the strategy for 2008-2010 set out in document GN-2485, expected to be approved on 5 November 2008. The new strategy focuses on the following strategic areas: (i) productivity, competitiveness, and productive infrastructure to promote steady, sustained economic growth; (ii) creation of opportunities for the majority and development with identity; and (iii) strengthening of the State through institutional development at the national and decentralized level. This program will contribute to the first strategic area.

2. Institutional framework for water resources management

- 1.7 Law 2878 (Irrigation Act), passed in 2004, created the National Irrigation Service (SENARI), with its Departmental Irrigation Services (SEDERIs), as a self-governing body with the following powers: (i) approving and executing public investment plans, programs, and budgets to develop irrigation; (ii) registering and granting water rights for irrigation; and (iii) updating the National Irrigation Information System.
- 1.8 The Ministry of Water and its Vice Ministry of Irrigation (VMR) were created in 2006 as regulatory agencies. Their responsibilities include: (i) formulating and

approving, in coordination with the SENARI board of directors, irrigation development policies, regulations, plans, and programs; and (ii) managing national financing and international cooperation financing to promote irrigation development.

- 1.9 As an institution dedicated to carrying out public investment projects in all social and productive sectors, the National Productive and Social Investment Fund (FPS) has been supporting SENARI with the execution of irrigation projects. These projects served 84 municipios throughout Bolivia and totaled the equivalent of US\$13 million in 2008. Oversight and technical assistance mechanisms for developing irrigation associations include the systematic incorporation of technical manuals on the operation and maintenance of each irrigation system; by-laws and rules of procedure governing the irrigation associations; and agricultural use and business plan proposals for each irrigation system.

3. Bank actions in Bolivia's agricultural sector

- 1.10 The Bank has played an important role in Bolivia's agricultural sector through operations aimed at improving the provision of productive infrastructure and delivery of services with public-good characteristics. In addition to operation 964/SF-BO, dealing with irrigation infrastructure, the Bank has financed projects to improve health services and agricultural innovation (loan 1057/SF-BO), as well as to regularize rural land ownership and improve land management (loan 1512/SF-BO). The Bank has also supported the effectiveness of income transfers to producers by introducing tools for linking producers to the market using business plans (loan 1515/SF-BO).

4. Program strategy

- 1.11 The program seeks to continue the progress made under loan 964/SF-BO in terms of expanding the area of irrigated farm land in Bolivia in order to increase productivity in the sector and, as a result, boost rural incomes. However, based on the lessons learned in that operation, the design of this program includes certain variations to incorporate (i) a watershed approach in the studies and final designs of irrigation systems in order to ensure sustainable quantity and quality of water for agriculture among the different users; and (ii) comprehensive technical assistance in order to maximize, under a demand-driven approach, the economic benefits of investments in irrigation in terms of productive and business management. This will enable farmers to boost productivity and adopt new technological innovations and crop calendars as well as gain access to new markets.

B. Objective, components, and costs

- 1.12 The **objective of the proposed program** is to increase agricultural income for rural households by extending the area of farm land under irrigation and improving efficiency in the use and distribution of water for agricultural purposes. To meet this objective, program activities will be carried out through two components:

(i) investment to develop community irrigation; and (ii) water management for irrigation with a watershed approach.

1. Investment to develop community irrigation (US\$27.4 million)

- 1.13 This includes preinvestment studies, construction, rehabilitation, and improvements, as well as supervision of approximately 33 community irrigation projects¹ on some 9,000 hectares in seven departments throughout the country. The eligible beneficiaries will be irrigation associations that: (i) have legal status or are in the process of obtaining it; (ii) have water rights for irrigation granted by SENARI or have begun the registration and authorization process for said rights; (iii) have signed an agreement committing to operate and maintain the irrigation systems that are transferred; and (iv) have committed to contributing at least 10% of the investment cost (in cash or in kind) and all operating, maintenance, and investment depreciation costs.
- 1.14 Eleven projects totaling almost US\$8 million have final designs and are ready for the preparation of bidding forms. Designs for the other 22 projects will be finalized during program execution. A portfolio of 35 preinvestment studies for future financing will also be prepared. The eligibility criteria for each project are spelled out in the Operating Regulations and include that (i) it must have a positive economic return, measured as a social IRR equal to or greater than 12%; (ii) the sustainability of the water in the watershed must be ensured; and (iii) it must not cover land area greater than 1,000 hectares.

2. Water management for irrigation with a watershed approach (US\$5.1 million)

- 1.15 This component includes (i) the hiring of specialized staff at SENARI and the SEDERIs to grant and register water rights and resolve conflicts among different user groups and for project planning; (ii) establishment of a National Irrigation Information System (SNIR), which will include a management information system to monitor program execution and a watershed geographic information system that will integrate climate and water balance information with records on the water rights that have been granted; and (iii) technical assistance and training for (a) irrigation associations on plot irrigation, self-management, and system operation and maintenance and support for obtaining legal status; (b) the VMR, on water resource policies; and (c) SENARI and the SEDERIs, on water management, and the Escuela Nacional de Riego [National Irrigation School]. The Training and Institution-strengthening Plan provides a breakdown of these technical assistance and training activities (see electronic link).
- 1.16 **Costs and financing.** This program is designed as a specific investment loan with a five-year disbursement period. The total cost of the program is US\$35.8 million, US\$24 million of which will be financed by the Bank using Ordinary Capital and

¹ The most common community irrigation projects are water intake systems, dams, infiltration galleries, canals, siphons, and water supply systems.

US\$10.3 million from the Fund for Special Operations. The central government will provide the US\$1.3 million local contribution.

Table I-1 Program cost and financing (in US\$ millions)

Investment Category	IDB	Local ^a	Total	%
I. Program administration	1.9	0.2	2.1	6
II. Direct costs	31.3	1.3	32.6	91
2.1 Investment to develop community irrigation	26.1	1.3	27.4	77
2.2 Water management for irrigation with a watershed approach	5.1		5.1	14
III. Monitoring, evaluation, and audits	0.5		0.5	1
IV. Contingencies	0.7		0.7	2
IV. Finance charges^b	0.0		0.0	0
Total	34.3	1.5	35.8	100
Percentage	96	4	100	

a. The local contribution does not include any contributions by departmental governments or irrigation associations.

b. The finance charges, interest, and credit fee will be paid by the borrower outside of the program.

C. Viability

- 1.17 **Technical viability.** During program preparation, the technical viability of 11 irrigation systems was evaluated and feasibility studies and final designs were drawn up for these systems. The technical specifications of each project were determined through field visits and the application of methodologies validated by loan 964/SF-BO and the Agricultural Development Program financed by the German Agency for Technical Cooperation (GTZ). The specific parameters of the area where the projects will be implemented were taken into account, such as agroclimatic and environmental conditions; water supply, demand, and quality; soil type; production technology; and system management. The methods used in the design of these systems will be included in the guidelines for preparing the remaining irrigation systems to be included in the program Operating Regulations.
- 1.18 **Economic viability.** The economic analysis focused on the economic return of each of the 11 irrigation systems for which final designs had been drawn up, as well as for the program as a whole (see electronic links). The return of each irrigation system was calculated by comparing the discount rate of 12% with the IRR of annual net profits, estimated as the difference between the incremental revenue from increased agricultural production resulting from farm investments and direct costs (investment, operation, maintenance). The analysis that was performed is considered to be conservative, because (i) it did not account for income generated as a result of a change in the crops grown at the farm level; (ii) it did not account for environmental benefits from improved watershed management; and (iii) it assumed that only 50% of net profits would be obtained during the first year. The analysis

horizon was 10 or 20 years, depending on the estimated useful life of the irrigation system.

- 1.19 The results of the economic analysis of the 11 irrigation systems are shown in Table I-2. Under the conservative assumptions of this analysis, all of the systems have an IRR equal to or greater than 12%, demonstrating their viability.² The overall sample resulted in a 29% IRR at social prices. The methodology for calculating the economic return of the irrigations systems will be incorporated into the program Operating Regulations.

Table I.2 Economic Return of 11 Irrigation Systems (%)		
SYSTEM	DEPARTMENT	IRR
Yapacaní	Santa Cruz	40.1
Chacamayu-Chinchiri	Cochabamba	23.2
Vilacollo	Oruro	20.2
Monterico-Tambillo	Potosí	27.6
San Rafael	Santa Cruz	26.0
Sarufaya	Chuquisaca	24.8
Qewiña-qocha	Cochabamba	21.8
Limabamba-Villca Villca	Chuquisaca	17.5
San Juan del Potrero	Santa Cruz	24.1
Liriuni-La Guinda	Cochabamba	18.8
Ucha Ucha	La Paz	12.5
Sample^a		29%
a. IRR is for the aggregate net flow of the 11 projects (not the average IRR).		

- 1.20 The overall evaluation of the program determined a private and social return of 25%. As part of the economic viability analysis for the program, a sensitivity analysis was performed for two negative scenarios. In the scenario in which income drops 10% for 20 years, the program remains profitable, with a private and social return of 19%. In the scenario in which investment costs increase 20%, the private and social return of the program would still be 22%.

D. Results framework with key indicators

- 1.21 The most important outcomes of the program are expected to be (i) 7,500 program beneficiaries; (ii) 200% increase in annual agricultural income; (iii) 30% increase in crop yield; (iv) 9,000 additional hectares of irrigated land; (v) water use efficiency for irrigation systems increases to 40%; (vi) construction and transfer of 33 irrigation systems; (vii) completion of 35 preinvestment studies; (viii) comprehensive technical assistance, based on demand, for 33 irrigation

² Social return was calculated using efficiency prices and discounting taxes. The following efficiency prices were used: 1.24 for currency, 1 for skilled labor, 0.43 for semi-skilled labor, 0.23 for urban unskilled labor, and 0.47 for rural unskilled labor, as established by the Ministry of Planning and Development pursuant to Ministerial Resolution 159 of 22 September 2006.

systems; (ix) registration and authorization of water use rights for 50 irrigation systems; (x) implementation of the National Irrigation Information System within the VMR, as well as SENARI and the SEDERIs; (xi) training courses and workshops for 2,000 program beneficiaries; and (xii) training courses and workshops for 70 technical specialists from the VRM, SENARI, and the SEDERIs (see Results Matrix, Annex I).

II. FINANCIAL STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 In order to provide advance funds for the activities financed with loan proceeds, a revolving fund will be created for a maximum of 10% of the Bank loan. The program will be implemented over a five-year period, and the program resources are expected to be disbursed as follows:

Table II-1 Disbursement schedule (in US\$ millions)

Source	Year 1	Year 2	Year 3	Year 4	Year 5	Total	%
IDB	6.0	10.2	8.5	5.5	4.0	34.3	100
%	17	30	25	16	12	100	100

B. Social and environmental safeguard analysis

- 2.2 The proposed program will have a positive environmental and social impact, by contributing to more efficient management of irrigation water, as well as the sustainable management and recovery of the watersheds where the irrigation systems will be implemented. Construction is not expected to have any direct impact because these will be micro- and small-scale irrigation systems. However, the feasibility studies will determine whether there is a need for specific environmental studies through an environmental brief. The executing agency will have an environmental specialist responsible for the quality of the relevant studies and compliance with Bolivia's environmental laws.
- 2.3 Using the Bank's safeguard policy filter, this operation was classified as category B. In accordance with this classification, a social and environmental analysis was performed. The results of this analysis are presented in the Environmental and Social Management Report for the program (see electronic links). As a result, an Environmental and Social Management Plan was established in accordance with the Bank's guidelines. It contains a number of measures for preventing, minimizing, and/or mitigating any adverse impacts and promoting the positive impacts identified; a timeline with the resources necessary for implementation; and a list of the agencies responsible for execution. The plan also includes monitoring of the environmental and sociocultural impacts, including mechanisms for consultation with potential beneficiary groups and those who might be affected by the program, as well as a risk analysis methodology for the projects

that do not yet have final designs. The Environmental and Social Management Plan will be included in the program Operating Regulations.

C. Fiduciary risks

- 2.4 **Institutional capacity.** The institutional capacity of the executing agency and the entities participating in program execution was evaluated during program preparation (see electronic links). This assessment considered (i) previous experience in project execution; (ii) an exhaustive evaluation of the National Productive and Social Investment Fund (FPS), financed by the Bank in 2008 as part of preparations for another operation (BO-L1034); and (iii) application of the Institutional Capacity Assessment System (ICAS) methodology.³ The institutional capacity of the executing agency and the FPS was found to be satisfactory and the related institutional risk was determined to be low. Nevertheless, in view of the additional responsibilities that the program would entail, capacity will be strengthened with a technical support team for the VMR. Program resources will be used to contract three administration and finance professionals to provide support to the respective areas in the Program Coordinating Unit (PCU).
- 2.5 The SEDERIs are a key element of the program execution arrangement, because of their role as established under the Irrigation Act and because their local presence will make it easier to direct irrigation project proposals. Nevertheless, there is currently no institutional or operational structure (except in Oruro). In order to minimize the risks this implies, the program will finance staff hiring and training and the purchase of office equipment and vehicles. The departmental governments have also agreed to provide the resources to get the SEDERIs up and running.

D. Other issues and risks

- 2.6 The main risk is related to the current political context and governability, due to the tension between the central government and departmental players who are actively seeking greater decentralization. In order to minimize this risk, an initial formal agreement was reached with the regional governments of the seven departments in which the program will be implemented. Through this agreement, annual budgetary provisions will be allocated for implementing the SEDERIs under their jurisdiction and for supporting the identification of project proposals in the respective departments (see electronic links).

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Program execution and administration

- 3.1 The executing agency of the program will be the Ministry of Water, through its Vice Ministry of Irrigation (VMR). The VMR will be the main point of contact

³ The ICAS methodology covers the three systems of analysis: planning and organization (activities planning and institutional management); execution (staff management, management of goods and services, and financial management); and control (internal and external control).

between the Bank and the borrower during execution. It will be responsible for general administration, financial and accounting management, program monitoring and evaluation, as well as procurement for the component on water management for irrigation with a watershed approach. The National Productive and Social Investment Fund (FPS) will be responsible for contracting the design, execution, and supervision of works under the “investment to develop community irrigation” component. The National Irrigation Service (SENARI) and its departmental irrigation services (SEDERIs) will be charged with approving and determining the priority of the irrigation projects, as well as registering and authorizing water use rights for irrigation. The responsibilities of each entity will be formalized in a tripartite agreement. **The signature and entry into force of this agreement between the Ministry of Water, SENARI, and the FPS will be a condition precedent to the first disbursement of the loan.**

- 3.2 **Vice Ministry of Irrigation.** The responsibilities of the VMR include (i) keeping consolidated accounting records that enable identification of sources and uses of program resources by component; (ii) preparing and submitting to the Bank disbursement requests with the corresponding proof of eligible expenditures made by the VPM and those submitted by the FPS, as well as the audited consolidated financial statements for the program; (iii) transferring resources to the FPS, in accordance with the corresponding disbursement documents; (iv) preparing public bidding and tenders, concluding contracts, making the relevant payments, and providing technical supervision of contracts for the activities under their responsibility; (v) verifying consistency of the technical support documents for the FPS investments with the program objective and ensuring the quality of the bidding process before sending them to the Bank for its no objection; (vi) preparing, submitting to the Bank, and releasing to the public the required consolidated monitoring reports and evaluation reports; and (vii) ensuring compliance with the contractual clauses established in the loan contract; the tripartite agreement between the executing agency, SENARI, and the FPS; and the agreements with the beneficiaries.
- 3.3 The VMR will be supported by a program coordinator and a team of specialists on water resources management, case law, finance and accounting, and monitoring. In addition to this team of specialists, the VMR will also be assisted by staff members specializing in the environment and information technology. The experience of this team of specialists is expected to be incorporated by the permanent staff by the end of the program. **Selection of a Program Coordinator in accordance with the terms of reference previously approved by the Bank will be a condition precedent to the first disbursement.**
- 3.4 **National Productive and Social Investment Fund.** For the activities under its responsibility, the FPS, with the approval of SENARI, will contract the studies and final designs and execution and technical supervision of works. Throughout the project cycle it will ensure compliance with environmental laws and the contractual clauses in the loan contract, including the program Operating Regulations. The FPS

- will manage the budgetary provisions for the local counterpart resources required for execution of the programmed activities; open separate bank accounts; and keep accounting and financial records and an internal control system for managing program resources. The FPS will also prepare and send to the executing agency supporting documentation for the expenditures made and for the bidding process, as well as the semiannual execution reports. To carry out its accounting and financial responsibilities, the FPS will use the chart of accounts established by the General Accounting Office and the Bolivian government's Integrated Management and Administrative Modernization System (SIGMA), which will be supplemented by a Project Administration System. FPS responsibilities and the mechanism for transferring and administering loan resources for executing the activities under its charge will be formalized in the tripartite agreement with the executing agency and SENARI.
- 3.5 The FPS will carry out the abovementioned activities through a specialized water resources unit that will be created and supported by staff specifically assigned to the program for project management, economic analysis, environmental analysis, procurement, finance and accounting, and administrative assistance. The tripartite agreement with the executing agency and SENARI will include the requirement for the FPS to create that unit and to finance it with own resources.
- 3.6 **National Irrigation Service.** SENARI and the SEDERIs will have the following responsibilities under this program: (i) receiving proposals for irrigation projects from potential beneficiaries and verifying their eligibility; (ii) registering and granting the corresponding water rights for irrigation, prior to bidding for consulting services to develop the final project design; (iii) clearing the preinvestment studies and final project designs prior to bidding and execution; (iv) carrying out periodic inspections of the works during execution and subsequent monitoring of operation and maintenance; (v) approving the training activities included in the program (to be executed by the VMR); and (vi) clearing the terms of reference for the development and implementation of the National Irrigation Information System (to be prepared by the VMR), and updating the system once it has been transferred to SENARI and the SEDERIs. These responsibilities will be formalized in the tripartite agreement with the executing agency and the FPS.
- 3.7 To carry out the aforementioned tasks, SENARI and each of the SEDERIs will be supported by a team of approximately five members, including specialists in civil engineering, agronomy, case law, finance and accounting, the environment, and information technology.
- 3.8 **Operating Regulations.** Program execution and administration will be governed by the program Operating Regulations (OR) that will establish, among other things, the guidelines, responsibilities, and procedures for the executing agency and the participating entities in terms of programming activities; preparation of annual work plans; procurement; financial-accounting management and audits; guidelines for project design; eligibility criteria for beneficiaries and works; review and approval procedures for the works; technical and environmental supervision

guidelines, guidelines for water rights registries; the Environmental and Social Management Plan; and program monitoring and evaluation. The OR establish mechanisms for coordination and articulation between the executing agency and the participating entities during program execution. The draft OR are available in the electronic links. **Evidence that the program OR have entered into force will be a condition precedent to the first disbursement of the Bank loan.**

- 3.9 **Operation and maintenance of irrigation projects.** Following the experience of loan 964/SF-BO, the beneficiaries will assume responsibility for operating and maintaining the irrigation systems. The financial capacity and commitment of the beneficiaries to cover these costs is one of the key eligibility criteria for the irrigation systems. Based on the 11 projects in the sample, average annual operating and maintenance costs are estimated to be US\$40 per family.
- 3.10 Once the works have been built, the VMR, with clearance from SENARI, will transfer the irrigation systems to the beneficiaries, who will be required to submit an annual report for the first five years of operation on the maintenance work done. These reports will be available to the Bank for review. **Signature of the agreement between the executing agency and the respective irrigation association, under the terms agreed with the Bank, is a condition precedent to the launch of bidding for the related works.**

B. Procurement

- 3.11 Goods and related services and works will be procured in accordance with the Policies for the Procurement of Goods and Works Financed by the Bank (document GN-2349-7). Consulting services using program resources will be selected and contracted in accordance with the Policies for the Selection and Contracting of Consultants Financed by the Bank (document GN-2350-7), in accordance with the provisions of the loan contract and Procurement Plan. The Procurement Plan for the first 18 months is presented in Annex II. This plan will be updated each year or whenever there are substantial changes. The Bank will review program procurements on an ex ante basis, except when the Bank provides written authorization for ex post review. No exceptions to Bank policy are anticipated.

C. Monitoring and evaluation

- 3.12 **Monitoring.** The executing agency will monitor and evaluate compliance with the periodic outcome and impact targets established in the Results Matrix (Annex I), which includes indicators along with the corresponding baselines. For works designed during program execution, the feasibility studies will include basic information on each individual beneficiary, including marital status, age, gender, ethnicity, farm characteristics (size and type of land holding), information on the previous agricultural season (area cultivated, yield, and production for each crop, and income earned). This information will serve as a baseline (the “without the project” scenario) that will make it possible to measure the progress and impacts for indicators in the Results Matrix; carry out the economic analysis of the irrigation systems to be included in the final evaluation report; and make any ex post

- evaluations of the program. A field survey of beneficiary households and households in the control group, financed using loan resources, will be carried out at the end of the program to compile similar information (the “with the project” scenario) for measuring fulfillment of the targets.
- 3.13 The executing agency will prepare and send to the Bank, within 30 days of the end of each six-month period during program execution, a consolidated monitoring report on the progress of activities and toward meeting the achievements included in the Results Framework (Annex I). This report will identify any problems encountered and propose corrective measures. The consolidated report from the second six-month period will also include the annual work plan for the following calendar year, along with a disbursement forecast and an updated Procurement Plan. Once they have been accepted by the Bank, these reports will be posted on the page dedicated to the program on the executing agency’s website.
- 3.14 **Evaluation.** The executing agency will prepare and submit to the Bank a midterm evaluation within 90 days from the date on which 50% of the loan resources are disbursed, and a final evaluation report within 90 days from the date on which 90% of the loan resources are disbursed. These reports will include (i) progress toward achieving the program targets laid out in the Results Framework; (ii) the degree of compliance with the contractual commitments and the OR; (iii) effectiveness and efficiency of the preparation and approval of investment projects, with a focus on quality, time, and cost; (iv) a summary of the social and environmental impacts of the program; (v) degree of participation in the program by the departmental governments through the contribution of resources; and (vi) degree of compliance in terms of operation and maintenance of the works by the beneficiaries. The final evaluation will also include the lessons learned and an economic evaluation of a representative group of irrigation systems that were built. These evaluations will be performed by consulting firms contracted by the executing agency and financed with loan proceeds. Both reports, including the supporting documentation and statistical information, will remain available for the Government of Bolivia or the Bank to conduct an ex post evaluation if they decide to do so once the program is completed.
- 3.15 An external analysis will be performed during year four of execution, including an evaluation of program outcomes. For this evaluation of intermediate outcomes, field surveys will be carried out with beneficiary households and with households in the control group. These surveys will be financed using loan resources and will compile information similar to that used for the program baseline. The evaluation will also identify problems and propose corrective measures.
- 3.16 **Audits.** The program financial statements will be audited annually. The VMR will be responsible for contracting a competent, independent company in accordance with Bank regulations and those established in Bolivia. The company will issue an opinion and a report on whether the financial statements were fairly presented.

D. Preparation for execution

- 3.17 Nonreimbursable technical-cooperation resources (BO-T1109) will support the Government of Bolivia in carrying out the activities required to meet the contractual conditions and expedite program launch. Operation BO-T1109 will finance the following activities: (i) formalization of participation by the departmental governments and their commitment to the program; (ii) finalization of the bidding form for works, supervision, and procurement of goods; (iii) completion of studies and final designs for 10 additional irrigation projects; (iv) development of a methodology enabling ex post evaluation of the program impacts, including a definition of elements such as sample size and representativeness, stratification, clustering, mechanisms for selecting the members of the beneficiary group and the control group for the future creation of a data panel, questionnaire and econometric model design; (v) establishment of the program baseline, through a survey of beneficiary households and households from the control group; (vi) preparation of Proposed Environmental Regulations for the Irrigation Sector, to be incorporated into the Operating Regulations; (vii) finalization of the terms of reference for consultants carrying out the key tasks in component 2; and (viii) identification of agribusiness opportunities and strategies for the beneficiaries. The BO-T1109 resources will enable the VMR to hire the coordinator who will head up these activities.

BOLIVIA
NATIONAL IRRIGATION PROGRAM WITH A WATERSHED APPROACH
RESULTS MATRIX

OBJECTIVE	The objective of the program is to increase agricultural income for rural households by expanding the area of farm land under irrigation and improving efficiency in the use and distribution of water for agricultural purposes. To meet this objective, program activities will be carried out through two components: (i) investment to develop community irrigation; and (ii) water management for irrigation with a watershed approach.							
GOAL	Baseline (2008)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments / Means of Verification
Annual family income per beneficiary household (% increase)	0	0	50	100	150	200	200	-VMR-PCU annual reports on beneficiary households. - External evaluator report based on a tracking survey of beneficiary households and households in the control group, at least once during program execution (year 3).
Food insecurity indicator for beneficiary households (%)	37	37	35	30	25	20	20	-Official statistics on children under 5 suffering from chronic malnutrition.
Number of families benefiting	0	0	1,500	3,500	5,500	7,500	7,500	-Program records.
Component I: INVESTMENT TO DEVELOP COMMUNITY IRRIGATION								
OUTCOMES	Baseline (2008)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments / Means of Verification
I.1. Average agricultural income per hectare (US\$)	500	500	750	1,000	1,250	1,500	1,500	- VMR-PCU annual reports on beneficiary households. - External evaluator report based on a tracking survey of beneficiary households and households in the control group, at least once during program execution (year 3). -National Irrigation Information System (SNIR)
I.2. Yield per crop (% increase)	Tons/hectare: Garlic: 5.5; Alfalfa: 10.8; Peas: 3.7; Barley: 2 Onions: 11.6; Broad beans: 4.5; Corn (kernel): 2.2; Corn (cob): 4.1; Potatoes (year): 9; Potatoes (early): 10.2; Wheat: 1.4; Carrots: 10	0	5	10	20	30	30	
I.3. Additional hectares irrigated	0	0	1,500	3,500	6,000	9,000	9,000	
I.4. Water use efficiency in irrigation systems (%)	15	15	30	30	40	40	40	

OUTPUTS								
a. Preinvestment studies adjusted and with quality control, including environmental sustainability (#)	11	11	22	33	40	45	45	- SENARI and SEDERI reports.
b. Community irrigation systems with infrastructure transferred to and maintained by irrigators (#)	0	0	11	22	33	33	33	-FPS reports. -VMR-PCU reports. -Inspection visits.
c. Comprehensive technical assistance provided based on demand (# of systems)	0	0	N/A	N/A	N/A	33	33	-Inspection visits. -SENARI and SEDERI reports.
Component IV. WATER MANAGEMENT FOR IRRIGATION WITH A WATERSHED APPROACH								
OUTCOMES	Baseline (2008)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments / Means of Verification
II.1. Registrations and authorizations for water use granted	0	11	22	33	40	45	45	-SENARI reports. -SNIR.
II. 2. Fully functional SEDERIs	0	4	6	7	7	7	7	-SEDERI reports.
II.3. SNIR system implemented (# of institutions using the system)	0	0	3	5	8	10	10	-SENARI and SEDERI reports. -VMR-PCU reports. -FPS reports.
OUTPUTS								
Specialized staff contracted at VMR-PCU	0	8	8	8	8	8	8	-VMR-PCU reports.
Specialized staff contracted at SENARI.	0	14	14	14	14	14	14	-SENARI reports.
Specialized staff contracted at each SEDERI	0	16	16	16	16	16	16	-SEDERI reports.
Courses and training workshops for irrigators (# of attendees)	0	0	100	500	1,000	2,000	2,000	-Course and workshop evaluations.
Courses and training workshops for VMR, SENARI, and SEDERI specialists (# of attendees)	0	0	30	60	70	70	70	-Course and workshop evaluations.

Summary Procurement Plan
Project: National Irrigation Program with a Watershed Approach
Project Number _____ and Loan Contract _____ [when available]
Period included in this Procurement Plan: April 2009 to August 2010

Ref. No. 1	Description and type of procurement contract	Estimated contract cost (US\$ thousands)	Procure- ment method ²	Review (Ex ante or ex post)	Source of financing and percentage		Prequalifi- cation ³ (Yes/No)	Estimated dates		Status ⁴ (pending, in process, awarded, cancelled).	Comments
					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
1 GOODS											
1.1 Good no. 1	Purchase of 3 vans for the Coordinating Unit. Purchase of 2 vans for SENARI. Purchase of 7 vans for the SEDERIs. Amount	105,000 70,000 245,000 420,000	ICB	Ex ante	100		no	1st half 2009	2nd half 2009	Pending	
1.2 Good no. 2	12 laptop computers 40 desktop PCs 1 wide format color printer 19 printers 9 scanners 9 data displays 1 plotter Amount	20,400 40,000 5,000 4,750 1,350 18,000 4,500 94,000	NCB	Ex ante	100		no	1st half 2009	2nd half 2009	Pending	
1.3 Good no. 3	9 photocopiers 9 fax machines 2 telephone switchboards 7 mini switchboards 18 GPS devices 8 total stations 9 inclinometers 9 digital cameras 1 camcorder Amount	18,000 1,800 3,000 1,750 9,000 160,000 450 4,500 1,500 200,000	NCB	Ex ante	100		no	1st half 2009	2nd half 2009	Pending	
1.4 Good no. 4	Software (various packages)	5,000	PC	Ex ante	100		no	1st half 2009	2nd half 2009	Pending	
2 WORKS											
2.1 Work no. 1	Vilacollo Irrigation system for 26 families in Oruro	113,896	NCB	Ex ante	100		no	1st half 2009	1st half 2010	Pending	
2.2 Work no. 2	Ucha Ucha Irrigation system for 169 families in La Paz	353,895	NCB	Ex ante	100		no	1st half 2009	2nd half 2009	Pending	

Ref. No. 1	Description and type of procurement contract	Estimated contract cost (US\$ thousands)	Procure- ment method ²	Review (Ex ante or ex post)	Source of financing and percentage		Prequalifi- cation ³ (Yes/No)	Estimated dates		Status ⁴ (pending, in process, awarded, cancelled).	Comments
					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
2.3	Work no. 3 Tambillo Alto - Villa Monte Rico Irrigation system for 105 families in Potosí	130,448	NCB	Ex ante	100		no	1st half 2009	1st half 2010	Pending	
2.4	Work no. 4 Sarufaya Irrigation system for 48 families in Chuquisaca Rehabilitation	134,671	NCB	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
2.5	Work no. 5 Kewiña Qhocha Irrigation system for 39 families in Cochabamba	339,435	NCB	Ex ante	100		no	1st half 2009	1st half 2010	Pending	
2.6	Work no. 6 Limabamba Bajo-Villca-Villca Irrigation system for 42 families in Chuquisaca	126,973	NCB	Ex ante	100		no	1st half 2009	1st half 2010	Pending	
2.7	Work no. 7 Chacamayu - Chinchiri Irrigation system for 535 families in Cochabamba Irrigation canal	996,683	ICB	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
2.8	Work no. 8 Liruini - Laguinda Irrigation system for 206 families in Cochabamba	373,738	NCB	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
2.9	Work no. 9 San Juan del Potrero Irrigation system for 186 families in Santa Cruz Rehabilitation	1,248,683	ICB	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
2.10	Work no. 10 San Rafael Irrigation system for 291 families in Santa Cruz Rehabilitation	1,928,827	ICB	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
2.11	Work no. 11 Yapacani Irrigation system for 50 families in Santa Cruz 3 CONSULTING SERVICES	1,511,453	ICB	Ex ante	100		no	1st half 2009	2nd half 2009	Pending	
3.1	SERVICE NO. 1 SUPERVISION (Individual Consultant) Vilacollo Irrigation system for 26 families in Oruro	4,998	NICQ	Ex ante	100		no	1st half 2009	1st half 2010	Pending	
3.2	SERVICE NO. 2 SUPERVISION (Individual Consultant) Ucha Ucha Irrigation system for 169 families in La Paz	13,310	NICQ	Ex ante	100		no	1st half 2009	2nd half 2009	Pending	
3.3	SERVICE NO. 3 SUPERVISION (Individual Consultant) Tambillo Alto - Villa Monte Rico Irrigation system for 105 families in Potosí	9,540	NICQ	Ex ante	100		no	1st half 2009	1st half 2010	Pending	

[illegible]

[illegible]

Ref. No. 1	Description and type of procurement contract	Estimated contract cost (US\$ thousands)	Procure- ment method ²	Review (Ex ante or ex post)	Source of financing and percentage		Prequalifi- cation ³ (Yes/No)	Estimated dates		Status ⁴ (pending, in process, awarded, cancelled).	Comments
					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
	Civil Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.31	SERVICE NO. 40 Agricultural Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.32	SERVICE NO. 41 Attorney (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.33	SERVICE NO. 42 GIS Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.44	SERVICE NO. 43 Administrator (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
	SEDERI Santa Cruz Institution-strengthening										
4.45	SERVICE NO. 44 Civil Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.46	SERVICE NO. 45 Agricultural Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.47	SERVICE NO. 46 Attorney (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.48	SERVICE NO. 47 GIS Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.49	SERVICE NO. 48 Administrator (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
	SEDERI Cochabamba Institution-strengthening										
4.50	SERVICE NO. 49 Civil Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.51	SERVICE NO. 50 Agricultural Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.52	SERVICE NO. 51 Attorney (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.53	SERVICE NO. 52 GIS Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.54	SERVICE NO. 53 Administrator (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
	SEDERI Tarija Institution-strengthening										
4.55	SERVICE NO. 54 Civil Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.56	SERVICE NO. 55 Agricultural Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.57	SERVICE NO. 56 Attorney (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.58	SERVICE NO. 57 GIS Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.59	SERVICE NO. 58 Administrator (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
	SEDERI Oruro Institution-strengthening										
4.60	SERVICE NO. 59 Civil Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.61	SERVICE NO. 60 Agricultural Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	

Ref. No. 1	Description and type of procurement contract	Estimated contract cost (US\$ thousands)	Procure- ment method ²	Review (Ex ante or ex post)	Source of financing and percentage		Prequalifi- cation ³ (Yes/No)	Estimated dates		Status ⁴ (pending, in process, awarded, cancelled).	Comments
					IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
4.62	SERVICE NO. 61 Attorney (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.63	SERVICE NO. 62 GIS Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.64	SERVICE NO. 63 Administrator (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
	SEDERI Potosí Institution-strengthening										
4.65	SERVICE NO. 64 Civil Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.66	SERVICE NO. 65 Agricultural Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.67	SERVICE NO. 66 Attorney (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.68	SERVICE NO. 67 GIS Engineer (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.69	SERVICE NO. 68 Administrator (Individual Consultant)	38,520	CQS-IN	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
	5 NONCONSULTING SERVICES										
	Strengthening of social organizations										
4.70	SERVICE NO. 69 Seminars and Workshops (14 x US\$4,000) + (7 x 3,000)	77,000	PC	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.77	SERVICE NO. 70 Fares	5,040	DC	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	
4.78	SERVICE NO. 71 Advertising	10,000	DC	Ex ante	100		no	1st half 2009	2nd half 2010	Pending	

1. If a number of similar individual contracts were to be executed in different places or at different times, these can be grouped together under a single heading, with an explanation in the comments column indicating the average individual contract amount and the period during which they would be executed. For example, an education project that includes school construction might include an item "school construction" for a total of US\$20 million, and an explanation in the comments column such as: "This encompasses some 200 contracts for school construction averaging US\$100,000 each, to be awarded individually by participating municipal governments over a three-year period between January 2006 and December 2008."

2 **Goods and Works:** ICB: International competitive bidding; LIB: limited international bidding; NCB: national competitive bidding; PC: price comparison; DC: direct contracting; FA: force account; PSA: Procurement through Specialized Agencies; PA: Procurement Agents; IA: Inspection Agents; PLFI: Procurement in Loans to Financial Intermediaries; BOO/BOT/BOOT: Build, Own, Operate/Build, Operate, Transfer/Build, Own, Operate, Transfer; PBP: Performance-Based Procurement; PLGB: Procurement under Loans Guaranteed by the Bank; PCP: Community participation procurement. **Consulting Firms:** QCBS: Quality- and Cost-Based Selection QBS: Quality-Based Selection FBS: Selection under a Fixed Budget; LCS: Least-Cost Selection; CQS: Selection based on the Consultants' Qualifications; SSS: Single-Source Selection.

Individual Consultants: NICQ: National Individual Consultant selection based on Qualifications; IICC: International Individual Consultant selection based on Qualifications

3 In the case of new Policies it applies only for Goods and Works. In the case Old Procurement Policies it applies for Goods, Works and Consulting Services.

4 This column "Status" should be used for retroactive procurement and for procurement plan updates.

Threshold Amounts: The threshold amounts (in US\$ thousands) adopted for program procurements are:

WORKS: ICB ≥ 1,000; 1,000 > NCB ≥ 30; PC <30

GOODS: ICB ≥ 200; 200 > NCB ≥ 10; PC <10

CONSULTING SERVICES Shortlist comprising entirely national consultants < 200

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/___

Bolivia. Loan ___/BL-BO to the Republic of Bolivia
National Program for Watershed-based Irrigation

The Board of Executive Directors

RESOLVES:

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 contract or contracts as may be necessary with the Republic of Bolivia, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a national program for watershed-based irrigation. Such financing is under the multilateral debt relief and concessional finance reform at the Bank, and will be for the amount of up to US\$24,000,000, from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on _____)

LEG/SGO/BO-1712481-08
BO-L1021

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/___

Bolivia. Loan ____/BL-BO to the Republic of Bolivia
National Program for Watershed-based Irrigation

The Board of Executive Directors

RESOLVES:

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 contract or contracts as may be necessary with the Republic of Bolivia, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a national program for watershed-based irrigation. Such financing is under the multilateral debt relief and concessional finance reform at the Bank, and will be for the amount of up to US\$10,300,000, from the resources of the Bank's Fund for Special Operations, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on _____)

LEG/SGO/BO-1712478-08
BO-L1021