

Document of
The World Bank

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Report No: 38508-CO

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US\$ 90.0 MILLION

TO THE

DEPARTMENT OF LA GUAJIRA

WITH THE GUARANTEE OF THE REPUBLIC OF COLOMBIA

FOR A

LA GUAJIRA WATER AND SANITATION INFRASTRUCTURE AND SERVICE
MANAGEMENT PROJECT

IN SUPPORT OF THE FIRST PHASE OF THE WATER AND SANITATION
INFRASTRUCTURE AND SERVICE MANAGEMENT PROGRAM

February 12, 2007

SUSTAINABLE DEVELOPMENT DEPARTMENT
COLOMBIA AND MEXICO COUNTRY MANAGEMENT UNIT
LATIN AMERICA AND THE CARIBBEAN REGION

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CURRENCY EQUIVALENTS
(Exchange Rate Effective February 1, 2007)

Currency Unit = Colombian Peso (CO\$)
CO\$ 2264.5 = US\$ 1
US\$ 0.000442 = CO\$ 1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ANH	National Hydrocarbons Agency (<i>Agencia Nacional de Hidrocarburos</i>)
APL	Adaptable Program Loan
BOD	Biochemical Oxygen Demand
CAR	Autonomous Regional Corporation (<i>Corporación Autónoma Regional</i>)
CAS	Country Assistance Strategy
CFAA	Country Financial Accountability Assessment
CONPES	National Council for Economic and Social Policy (<i>Consejo Nacional de Política Económica y Social</i>)
CQ	Consultants' Qualifications
CRA	Water Regulatory Commission (<i>Comisión Reguladora de Agua</i>)
DNP	National Planning Department (<i>Departamento Nacional de Planeación</i>)
EIA	Environmental Impact Assessment
FM	Financial Management
FMR	Financial Management Report
IBRD	International Bank for Reconstruction and Development
ICANH	Colombian Institute of Archaeology and History (<i>Instituto Colombiano de Antropología e Historia</i>)
ICB	International Competitive Bidding
INCODER	Colombian Institute for Rural Development (<i>Instituto Colombiano de Desarrollo Rural</i>)
IPP	Indigenous Peoples Plan
IPPF	Indigenous Peoples Planning Framework
IRR	Internal Rate of Return
LCR	Latin America and the Caribbean Region
LCS	Least Cost Selection
M&E	Monitoring and Evaluation
MAVDT	Ministry of Environment, Housing, and Regional Development (<i>Ministerio de Ambiente, Vivienda, y Desarrollo Territorial</i>)
MDG	Millennium Development Goal
NCB	National Competitive Bidding
NDP	National Development Plan
NGO	Non-Government Organization
NPV	Net Present Value
O&M	Operation and Maintenance
OP	Operational Policy
PIU	Program Implementation Unit
POI	Works and Investment Plan (<i>Plan de Obras e Inversión</i>)
PSP	Private Sector Participation
PVC	Polyvinyl Chloride

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QBS	Quality Based Selection
RPF	Resettlement Policy Framework
SAI	Secretary of Indigenous Affairs of La Guajira (<i>Secretaria de Asuntos Indígenas</i>)
SBD	Standard Bidding Document
SENA	National Learning Service (<i>Servicio Nacional de Aprendizaje</i>)
SOE	Statement of Expenditure
SSPD	Superintendency of Public Enterprises (<i>Superintendencia de Servicios Públicos Domiciliarios</i>)
SSS	Single Source Selection
TA	Technical Assistance
TAL	Technical Assistance Loan

Vice President:	Pamela Cox
Acting Country Director:	Makhtar Diop
Sector Director:	Laura Tuck
Sector Manager:	John Henry Stein
Task Team Leaders:	David Sislen / Menahem Libhaber

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COLOMBIA
La Guajira Water and Sanitation Infrastructure and Service Management Project

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COLOMBIA
LA GUAJIRA WATER AND SANITATION INFRASTRUCTURE AND SERVICE
MANAGEMENT PROJECT

(1st PHASE – Adaptable Program Lending)

Project Appraisal Document

Date: February 12, 2007	Team Leader: David N. Sislen / Menahem Libhaber
Acting Country Director: Makhtar Diop	Sectors: General water, sanitation and flood protection sector (100%)
Sector Director / Manager: Laura Tuck / John Henry Stein	Themes: Pollution management and environmental health (P); Other urban development (S)
Project ID: P096965	Environmental screening category: Category B
Lending Instrument: Adaptable Program Loan (APL)	Safeguard screening category: Requires framework

Project Financing Data

APL	Indicative Financing Plan				Estimated Implementation Period		Borrower
	IBRD US\$ m	%	Others US\$ m	Total US\$ m	Commitment Date	Closing Date	Government of the Department of La Guajira
APL 1 Loan	90.0	63%	53.0	143.0	4/15/07	10/15/11	
APL 2 Loan	60.0	60%	40.0	100.0	4/1/09	6/15/14	
TOTAL	150.0	62%	93.0	243.0			

[X] Loan [] Credit [] Grant [] Guarantee [] Other:

For Loans/Credits/Others:

Loan Currency: United States Dollars

Amount of Loan: US\$ 90.0 million

Proposed terms: Fixed-spread, commitment-linked Loan with level repayments

Grace period (years): 4 Years to Maturity: 16

Commitment fee: Standard charge of 0.75 of 1% per year on the unwithdrawn Loan balance subject to any waiver of a portion of such charge

Front-end fee on Bank loan: 1% of Loan amount, less any waiver, payable no later than 60 days after the Effective Date should the Borrower elect not to capitalize the fee

Financing Plan (US\$ m)

Source	Local	Foreign	Total
Department of La Guajira	28.00	7.00	35.00
Local Municipal Counterpart Financing	12.72	3.18	15.9
Other Sources (government and operator contributions)	1.6	0.5	2.1
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT	72.00	18.00	90.00
Total:	114.32	28.68	143.0

Borrower: Government of the Department of La Guajira Responsible Agency: Gobernación del Departamento de La Guajira, Calle 1ª, No. 06-04, Riohacha, La Guajira, Colombia Contact Person: José Vicente Berardinelli Tel.: +575-7275007 Fax: E-Mail: goberguajira@yahoo.com
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Estimated disbursements (Bank FY/US\$m)					
FY	2007	2008	2009	2010	2011
Annual	5.0	25.0	20.0	30.0	10.0
Cumulative	5.0	30.0	50.0	80.0	90.0
Project implementation period: Start – April 15, 2007; End – October 15, 2011 Expected effectiveness date: April 15, 2007 Expected closing date: October 15, 2011					

Does the Project depart from the CAS in content or other significant respects? <i>Ref. PAD A.2</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the Project require any exceptions from Bank policies? <i>Ref. PAD D.7</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Have these been approved by Bank management?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is approval for any policy exception sought from the Board?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the Project include any critical risks rated “substantial” or “high”? <i>Ref. PAD C.5</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the Project meet the Regional criteria for readiness for implementation? <i>Ref. PAD D.7</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<p>Project development objective <i>Ref. PAD B.4, Technical Annex 4</i></p> <p>The objective of the proposed Project (APL Phase I) is to improve the quality of water supply and sanitation services in urban and peri-urban areas of La Guajira, moving towards complete coverage with continuous supply of potable water for urban areas. Specifically, the proposed operation will increase service quality for water supply, sanitation, and wastewater treatment in urban areas for 300,000 consumers and improve the sustainability of service by (a) supporting utility institutional performance through the Government of Colombia’s “Specialized Operator” policy, and (b) delivering the necessary water and sanitation infrastructure.</p>
<p>Project description <i>Ref. PAD B.3, Technical Annex 4</i></p> <p>The Project is structured with 3 components:</p> <p><u>Component 1</u> of the Project would finance civil works, equipment, and services for water supply and sanitation in the participating municipalities of the Department of La Guajira. It is expected that at least 10 municipalities of the Department are likely to participate in the urban investment component.</p> <p><u>Component 2</u> of the Project will finance a small pilot of activities to improve the access of rural, mostly indigenous Wayúu, communities to appropriate water supply and sanitation services in an efficient and sustainable manner. The objective of the component activities is to develop a replicable approach and model for scaling up during Phase II of the APL.</p>

Component 3 of the Project would finance goods and services associated with the management of Project financed activities and related analytical work for the design of Phase II of the APL.

Which safeguard policies are triggered, if any? ***Ref. PAD D.6, Technical Annex 10***

Environmental Assessment (OP/BP/GP 4.01); Natural Habitats (OP/BP 4.04); Cultural Property (OPN 11.03, being revised as OP 4.11); Involuntary Resettlement (OP/BP 4.12); Indigenous Peoples (OP 4.10); Projects on International Waterways (OP/BP/GP 7.50)

Significant, non-standard conditions, **if any**, for:

Ref. PAD C.7

Board presentation:

N/A

Loan/credit effectiveness:

The Loan Agreement includes two non-standard conditions of Effectiveness, both of which are expected to take place prior to the signing of the Loan Agreement:

1. The Fiduciary contract has been executed and delivered;
2. The Operational Manual has been adopted by the *Gobernación* (government of the Department of La Guajira).

A. STRATEGIC CONTEXT AND RATIONALE

1. Country and sector issues

1. The Department of La Guajira occupies a large peninsula in the northeast of Colombia facing the Atlantic and the Caribbean Sea and shares a long border with Venezuela to the East¹. La Guajira is one of the least developed and most impoverished of Colombia's 32 departments and the population of approximately 520,000 – approximately 42% of whom are indigenous Wayúu people – is among the country's poorest; the majority of the population lives in conditions of extreme poverty, with almost the totality of the Department's inhabitants classified in Strata 1, 2 and 3 according to the national stratification system. The Wayúu, an indigenous people that have lived in La Guajira for more than 3,000 years and whose cultural and political traditions are deeply rooted, live in conditions of considerable hardship and lack almost all access to basic public services.

2. The Department is one of the richest regions in the country in terms of natural resources with the world's largest open-cut coal mine – El Cerrejón – which generates approximately US\$ 50 million *per annum* in royalties from the mining of coal and coal related products². However, the economic potential of this important revenue source historically has not been harnessed by the Department's leaders who have been unable to use it as a steady source of capital to finance the adequate level of infrastructure or an acceptable level of public services for the Department's population. The Department faces a host of structural problems that are rooted in the historic lack of long-term vision and strategic planning of its political leaders, and inconsistent economic growth. Despite a current high volume of royalty revenues from its extractive industries, the backlog of needed infrastructure investment and low levels of human capital development, combined with problems of governance and accountability, make the Department a particularly challenging case. Education, health, transport, water and sanitation and other basic services are largely underdeveloped in both the urban and rural areas and investment in infrastructure has been inadequately planned, insufficient and poorly maintained.

3. Of the many challenges for fostering development that are faced by the Department, the water and sanitation sector is the most pressing challenge, since water is scarcely available in most areas of the Department and this is perceived by the public to be a major problem, especially in the hot climate of La Guajira. Sector performance has been very deficient, due to the combination of poor management of services by the municipalities, low-impact and poorly maintained investments, and the scarcity and lack of reliability of water sources. In urban areas, service coverage is very low by Colombian standards – 68.2% of the population has water connections and only 35.1% of the population has a sewerage connection (compared with national averages of 88.3% and 74%, respectively) and problems with continuity of service and the quality of water supplied by piped networks are widespread. There is almost unanimous political consensus within the Department that the time has come to resolve the basic service deficiencies and to make the water and sanitation sector policy priority in both the short- and medium-term. The Department's strategy – developed in coordination with the Central Government sector institutions³ – includes a reform program under the rubric of the overarching

¹ See Annex 10, Figure 1

² The Department's other natural resources are the gas deposits of Catalina and Chuchupa, the potential for the generation of eolic energy (wind power) - which has been explored with mixed results to date - and the Manaure salt deposits that are among the largest in the South America.

³ Primarily the *Superintendencia de Servicios Públicos Domiciliarios*, DNP and MAVDT.

national sector strategy and an ambitious investment plan that aims to address the following outstanding challenges:

Low coverage rates, deficient water quality and poor service levels in serviced areas. Existing treatment capacity within the urban areas is exhausted and the safety of the water delivered to the population is unreliable. The municipalities of Manaure and Uribia have desalination plants but they suffer from continuous operational problems. Without exception, all cities have deficient levels of service, with intermittent supply and low water pressure. The average service availability was estimated at 4 hours of service per day, leakage is estimated at 60% of total water production in 2004, and metering coverage is practically non-existent. Sanitation services are underdeveloped. The network infrastructure is insufficient and less than 10% of the wastewater receives any kind of treatment.

Poor management, under-performing utilities and a weak institutional framework. Historically, poor management of services by municipalities accounts for the deficient quality of the services rendered in the urban centers of the Department. Only 9 municipalities have created dedicated service providers separate from the municipality, and the performance of these operators is severely challenged by a historic backlog of under-investment and poor maintenance, a generalized culture of non-payment for the services and large operating deficiencies. In urban areas, losses account for over 60% of production, and although water scarcity is an important issue in La Guajira, supply constraints could be addressed – at least in the short and medium term – simply through much needed operational and managerial improvements.

The need for improved management has, to a certain extent, been addressed by the establishment of Specialized Operators in three areas of the Department⁴ which to date have had a significant impact in terms of improving the performance of the three utilities⁵. In all three instances, considerable progress has been made against the performance indicators in both non-revenue water reduction and collection efficiency, but it will be very difficult for the utilities to be able to continue consolidating these improvements without ensuring access to investment resources.

An adequate institutional and regulatory framework around these concession contracts is also needed to ensure these improvements are consolidated. The Government's strategy envisages the deepening of this approach and the extension of the current Specialized Operator arrangements to the remaining urban areas. The investment program and institutional reforms to be supported by the proposed loan will target improvements in the performance of utilities with the objective of increasing efficiency and ensuring the long-term sustainability of the water and sanitation services.

⁴ In the municipalities of Maicao, Riohacha, and a regional utility covering seven of the southern municipalities in the Lower Guajira. See Table 1 for more details about service quality and continuity for Maicao and Riohacha.

⁵ In Riohacha, collection ratio increased by 350% in the last three years and continuity of the water service increased from 17% of the time to 52%, although coverage remained constant at about 80%. In the case of Maicao, water service coverage has increased from 38% to 70% and continuity increased from 0% to 40% of the time, eliminating the need for alternative water supply mechanisms such as *carrotanques* (water delivery trucks), far more expensive for the population than the tariffs charged by the utility.

Unserviced and extremely poor rural areas. To date, the Government has legally recognized Wayúu territorial rights to approximately 10,675 km² (the departmental total is about 21,000 km²) in the Middle and Upper Guajira in the jurisdiction of the municipalities of Riohacha, Maicao, Uribia and Manaure. These areas – where the population is almost exclusively Wayúu – are the areas most severely affected by deficiencies in water supply. The main and almost only source of supply in these areas is rainwater catchments that are used indiscriminately for animal consumption, laundry, bathing, and human consumption with no treatment or disinfection⁶. In the health post in Kasushi – belonging to the hospital of the Municipality of Uribia – the most frequent cases of disease among the Wayúu population are diarrhea, infections, and skin disorders. Anecdotal evidence shared with the identification mission that took place in May 2005 shows that the incidence of water-borne diseases and child mortality is high. The poverty situation among the rural Wayúu is made all the more dramatic by the adjacent wealth generated by the Department's extractive industries.

Limited availability of water resources. La Guajira – especially Upper and Middle Guajira – is a desertic region⁷, where water resources are scarce and subject to a high level of variation throughout the year. The main source of water in the Department is the River Ranchería that runs from the Sierra Nevada to the Caribbean Sea. The limited ground water available is highly saline and unfit for consumption without significant treatment. Water resources are further jeopardized by the exploitation of coal, pollution of watercourses due to illegal dumping, with little regard for the protection of water resources through watershed management. In this context, operation of the water and sanitation services calls for strategic water resource management and long-term investment planning in order to establish the necessary capacity to meet long term demand as the Department develops.

High investment needs, limited funding and need to rationalize investment in the sector. The Department's 4-year investment plan defines a comprehensive investment program required to achieve universal access to safe and reliable water for the population of La Guajira. The total needs in the next 4 years have been estimated to amount to approximately US\$ 143 million, though the existing utilities have little room to generate investment resources given the widespread culture of non-payment and the lack of working capital to enhance operational efficiency. The Department's strategy is to take advantage of its present and future royalty revenues to ensure access to investment resources as part of a public expenditure program for the sector in adequate infrastructure for service delivery. The royalties coming from both the coal and gas sectors are estimated in the region at an average of US\$ 50 million per year, of which approximately 20% would be allocated to the water and sanitation sector to act as counterpart funds during implementation and repay loan amortization during the repayment period for the program; all flows would be managed in a transparent way through an arms-length financial agent. Given the past experience with the use of royalties for financing low quality and inappropriate investment in the region, the national and regional authorities

⁶ In the area of Uribia, drinking water is also distributed from the Port of Intercor and distributed weekly by one of the members of the *Ranchería* in a *carrotanque* provided by one of the two Wayúu associations.

⁷ The average annual pluviometry in the department is registered at only 300 mm. According to INEAM's *Estudio Nacional del Agua* (National Study of Water), La Guajira is the only department in the country that presents a high deficit of water resources as measured by the "dryness index", which refers to the volume of water needed to maintain existing vegetation.

see this financing structure as a significant boon to enhancing the quality of public expenditure.

4. Experience with Private Sector Participation in Colombia. The Government of Colombia has articulated a policy framework to support the creation of commercially independent and financially viable utilities for providing water and sanitation services (in particular, see CONPES documents 2775⁸, 2912, 3253, 3383, and 3385). This approach, alongside the success with which the Colombian Government has supported the introduction of capable, often private, management of utilities, stands in contrast to a number of other Latin American countries, where large transactions, often with international concessionaires, have failed. Colombia is unique in the LAC region in that it both explicitly supports the use of private sector management (while not discriminating against competent public utilities which meet criteria for commercial and managerial independence from local governments) and in which a cadre of local private sector operators are active in the domestic utility market. There are currently approximately 90 cities under private management, including Cartagena and Barranquilla which are large cities with populations of about 1 and 2 million respectively, plus a number of others under management by public Specialized Operators, serving approximately 10% of the population.

5. Governance Challenges. The issue of governance – broadly defined – remains a key impediment to the improvement in the quality of water services in La Guajira, and the proposed operation aims to put in place mechanisms to improve sector management and governance, including improved transparency and accountability. While in the water sector specifically, the broader governance challenges in La Guajira include, among other issues, longstanding socio-economic and institutional difficulties. These complexities include a diverse population with a history of social exclusion, inequality and poverty, as well as a history of political instability and underground economy, corruption, unanswered claims from civil society and NGOs, lack of credibility of politicians and political institutions, and, despite a major effort towards demobilization in recent months and years, the continued presence of illegal armed groups. The Project includes a detailed and explicit Transparency and Accountability Strategy (see Annex 11).

6. The operational design also includes explicit measures to improve transparency and accountability during Project implementation. The low performance of La Guajira's water sector is without question related to historic governance problems. Inefficient public utilities, subject to capture by elites and politicians, failed to expand coverage or service quality. The culture of non-payment and evasion is widespread and has rarely been enforced. Public perceptions – as expressed in stakeholder consultation meetings held during preparation – point to the impression of fraud and corruption among elites as a principle cause for the failure of the public sector institutions to deliver. While the Project does not aim to improve the overall governance or management of the public sector in La Guajira and is limited to improving water and sanitation sector governance, it nonetheless represents a model for addressing governance issues in a direct way to resolve a concrete development challenge. The approach supported under the Project aims to address the governance challenge in several concrete ways, all in the attempt to improve the efficiency in the use of public resources spent in providing water and sanitation in La Guajira:

- Services will be delivered by responsible Specialized Operators, with significant experience in the sector under operational agreements which will be duly supervised by the sector regulatory entities and the Bank. The results from this approach in other parts of Colombia (particularly the Caribbean coast) are impressive. The operators' contracts establish clear and transparent service quality goals which will be closely monitored

⁸ "Participación del Sector Privado en Infraestructura Física", April 26, 1995

during implementation. Typically, in poorly managed public utilities, decision making about even the most basic operational decisions is subject to political interference. While the use of independent Specialized Operators is in no way a panacea, the Colombian experience points to significant reductions in political meddling in utility operations.

- To ensure the efficient use of public resources, the Bank will be directly involved in reviewing the annual work programs of the operators which establish the amount of Department-financed works that each municipality will receive.
- All goods, works, and services to be contracted under the concession agreements will utilize Bank procurement guidelines, including prior review of contracts above the ceilings established in the Loan Agreement.
- There are significant capacity constraints within the government of the Department (*Gobernación*). The approach of creating a temporary implementation unit, staffed by capable and competitively selected consultants, will help address difficulties in management, sector knowledge, and overall technical capacity to support implementation.
- The operation includes a broad campaign for public consultation both during preparation and, of critical importance, during implementation, so that results – and failures – are publicly known. Experience in other such arrangements in Colombia (and confirmed in the Bank’s review of the performance of the existing concessions for La Guajira) is that in many cases, local mayors do not live up to their commitments to provide local counterpart financing. Making public both the results on the ground and the operational performance of both parties to the concession agreement will be important to allow for public scrutiny of sector developments. The Project also includes an explicit communications strategy to disseminate Project information to the widest possible audience – including diverse actors such as national and municipal governments, local and national media, contractors, community leaders, politicians, business leaders, social control organizations, indigenous communities, and the citizens of La Guajira – which was designed during preparation with input from Bank communications specialists.
- The use of transparent and ring fenced fiduciary arrangements. All Project funds will pass through the Fiduciaria. The implementation arrangements for the Project rely on the use of an independent *fiduciaria* – trust agent – a commercially available entity which will be selected on a competitive basis to handle payments to contractors and goods and service providers. For Component 1, procurement will be handled by the operators, and for Component 2 by the PIU, and funds will be transferred directly from the *fiduciaria* to contractors and service providers.

7. Performance of operators currently working in La Guajira. Nine of the 15 municipalities of La Guajira have existing arrangements with private operators under three concession agreements – Aguas de la Peninsula (for the Municipality of Maicao); Aguas de la Guajira (for the Municipality of Riohacha); and Aguas del Sur (for seven municipalities in the south of the Department). Aguas de la Peninsula and Aguas del Sur are under the same ownership. Aguas de la Peninsula is an operation with investment contract (in which the operator commits to invest a specific amount of funds on an annual basis), while both Aguas de la Guajira and Aguas del Sur are operation-only concessions, and 20% of Aguas de La Guajira is municipally-owned (a mixed-capital company). Each of the concessions was prepared and selected using competitive

procedures consistent with those supported by the Bank in Colombia. In each case, there have been difficulties encountered in the implementation of the concession arrangements, with non-compliance on both the part of the concessionaires, and more importantly, from the local governments in meeting obligations established under the original concession agreements. Nonetheless, service has markedly improved in all three areas and the financial and operational performance of the utilities has improved dramatically. Nonpayment for services, though, remains endemic, and the consensus among policymakers is that a more rapid pace of achievement of the operational goals than was originally envisaged is necessary. Table 1 summarizes the performance of the two concessions in Riohacha and Maicao (see Annex 14 for greater details).

<i>Table 1. Operational Indicators for Aguas de la Guajira and Aguas de la Peninsula</i>				
	<i>Aguas de la Guajira</i>		<i>Aguas de la Peninsula</i>	
	<i>2001</i>	<i>2005</i>	<i>2001</i>	<i>2005</i>
<i>Water Service</i>				
Connections	13,091	13,979	7,838	11,888
Continuity of the service (hours per day)	6	12	0%	29%
Compliance with Water quality regulation	No	Yes	No	Yes
<i>Sewerage</i>				
Connections	9,636	11,614	4,808	5,500
Waste water treatment	0%	0%	23%	26%

8. **Adjusting Operational Targets.** The key operational underpinning of the proposed Project is an agreement by all involved parties (the Department, local municipality, and operators) to (a) advance the operational targets established under the existing concession agreements from a 25/30 year time horizon to a 4-5 year time horizon, and (b) provide Department-financed capital subsidies to allow these targets to be met. The operation will not include any broader renegotiation or restructuring of the existing concession arrangements. These new targets and investment amounts will be (a) reviewed in detail, and adjusted as necessary by the Program Implementation Unit using financial models already established under Loan 7077-CO and which have been approved by the Bank; and (b) subject to the review and No Objection of the Bank. For those municipalities which are entering new concessions or joining existing arrangements (this is the case for Dibulla, La Jagua del Pilar, and, in the case that they choose to participate in the Project during implementation, for Manaure and Uribia), the PIU, with support from the Government of Colombia's Ministry of Environment (MAVDT), would support the structuring and bidding process for a least-subsidy negative concession using the established methodology from existing Bank loans and practice in Colombia.

2. Rationale for Bank involvement

9. The Bank is the best positioned development institution to support the water and sanitation program in La Guajira and the Central Government has strongly requested the Bank's involvement for five reasons: First, the Bank has solid experience in the water sector – and particularly in the design and implementation of the “modernization” approach to least subsidy negative concessions which will form a key Project design element for urban water supply and sanitation. Second, there is recognition by the Government and the Bank that institutional issues – namely the design of institutional mechanisms for sustainable and efficient water and sanitation service improvement efforts – rather than purely infrastructure (“bricks and mortar”) are the key constraint in the Department. Third, issues related to indigenous peoples and social impacts will

be critical to the success of the program, and the Bank has significant experience and analytical capacity in regards to social issues and the mitigation of negative social impacts, particularly as regard indigenous peoples. The operation is fully consistent with the Bank CAS' stated objectives of "Achieving Sustainable Growth" and "Improving Infrastructure Services," as well as "Sharing the Fruits of Growth," i.e., the Equity Pillar). Fourth, the Bank is deeply involved in the water sector in Colombia and its detailed knowledge of sector issues allows it to be a trusted and reliable partner for the Government. Finally, and most critically, Bank involvement would enhance the transparent use of resources in the water and sanitation sector thereby improving sectoral governance in a manner consistent with the Colombian regulatory and policy framework.

10. The Central Government and Departmental Strategy. The strategy of the Government of Colombia for the water and sanitation sector supported by ongoing Bank programs combines the channeling of subsidized financing from the national budget with generating improvements in performance – through both enrolling public utilities in institutional development programs and incorporating the private sector in the management of the services. As indicated by the sector authorities in the context of the ongoing dialogue with the Bank, the MAVDT is developing an approach to improve sector performance and operate within the context of decentralized public administration existing in the country to strengthen the institutional and regulatory framework at the departmental level. One objective of this strategy is to concentrate service provision in multi-municipal providers that will support the potential of economies of scale and improve financial sustainability by reducing the excessive atomization of services at a local level. The Central Government strategy aims to ramp up investment in both urban and rural areas, improve performance of water companies, increase subsidies to the poor, make investment sustainable and efficient, reduce sector fragmentation, rationalize resource transfers, and improve the overarching sector institutions.

11. The Department's strategy is fully consistent with the Central Government strategy. The Department has put together a plan for the sector which fully acknowledges the need for improved management and investment in infrastructure under the guiding principles of the overall national strategy. The engagement of Specialized Operators in the management of the services in urban areas under negative concession arrangements replicating the ongoing Government program for the sector in the departments of the Caribbean coast supported by the ongoing Bank Loan 7077-CO is a centerpiece of the *Gobernación* of La Guajira's sector strategy to improve service levels, increase efficiency and achieve financial sustainability. The elements of the ongoing Loan 7077-CO will be replicated to form a uniform basis for sector development. The proposed operation aims to support the Department of La Guajira in piloting the desired national model for delivering basic water and sanitation services.

3. Higher level objectives to which the Project contributes

12. The Project contributes to five key higher-level objectives:

Achievement of MDG coverage goals for water supply and sanitation. The Project will help achieve the relevant Millennium Development Goal (MDG) targets for access to water supply and sanitation in both urban and rural areas.

Environmental Improvement. As a program of investments in water supply, sanitation, and wastewater treatment, the Project will directly improve the environment, including ambient water quality through wastewater management.

Health. The operation will directly improve health outcomes in the Project areas. The health benefits of safe water supply and sanitation services are well-documented; reductions in incidences of water-borne disease (particularly diarrhea and other gastrointestinal illnesses, cholera, typhoid, and hepatitis B, among others) are expected to result from improved infrastructure and service quality.

Poverty Reduction. The operation will reduce poverty through the provision of assets to the poor; water and sanitation delivery is a core public service, and investment in service delivery infrastructure through the operation will benefit almost exclusively La Guajira's poor.

Sector Efficiency. Bank-support will also contribute to improving the quality of public institutions through operational reforms to public service delivery enterprises and, as such, enhance the capacity of the Government at all levels to provide public goods. The operation is also a pilot effort to enhance sector efficiency and economies of scale through support for a department-level entity responsible for sector policy in a manner complementary to existing sector institutions, and will support efforts to improve the coordinating capacity of the Department in issues related to service delivery at the municipal level.

4. Poverty Impact

13. Colombia's national tariff system incorporates a built in poverty-focused cross subsidy, with the poor (Strata 1, 2 and 3) paying below cost-recovery tariff levels, populations in Stratum 4 paying cost-recovery tariffs, and the wealthy (Strata 5 and 6) paying up to 120% of the cost-recovery tariff. The Project is expected to benefit primarily poor households (defined as Strata 1, 2, and 3) with the majority of those being in Strata 1 and 2.

The Project is expected to have three direct poverty impacts:

- New Connections. It is expected that the proposed Project would bring new water and sanitation connections to an unserved population of about 90,000, all of whom are classified as Strata 1 and 2.
- Investments for Improving Service Quality. Of the total direct beneficiaries of Phase I investments (300,000), the Government estimates that approximately 250,000 are in Strata 1, 2, and 3.
- Institutional Development through Operational and Financial Improvements. Though some investments will have system-wide benefits (including improved system pressure, reduced physical losses, etc.) and many of the operational and financial performance improvements which are expected to result from improved water service providers are not targeted directly at the poor, *per se*, experience in Colombia and throughout the region indicates that the poor – those unserved and underserved – will most benefit from improved systemic performance.

B. PROJECT DESCRIPTION

1. Lending instrument

14. The proposed operation would be structured under an Adaptable Program Loan (APL) comprising two phases. An APL approach will provide a framework for implementing the comprehensive medium-term sector investment and reform Program envisaged by the

Government and Departmental authorities to achieve the provision of efficient and sustainable municipal water, sewerage, and wastewater treatment throughout the Department.

2. Program objective and Phases

15. The Bank support to the Department would aim to support the implementation of a broad departmental strategy for improving water supply and sanitation access in La Guajira. Bank support would be structured around a two-phase APL (non-consecutive and overlapping), with Phase I (the proposed Project) focused on the improvement of basic services in urban and peri-urban areas of the Department while setting an overall Department strategy which includes rural areas, and Phase II focused on supporting rural water and sanitation solutions within the context of a broader assessment of rural demands. The second phase would be designed to take into account the results of the *ex-ante* development of an Indigenous Peoples Plan and other analytical work to ensure the appropriateness of solutions and prioritization by rural indigenous communities of water supply and sanitation and to embed any such solutions with a participatory development effort. During Phase I, Bank support would be utilized to consolidate a departmental vision for rural solutions – from both a technical and, perhaps more importantly, institutional viewpoint – and to undertake a small pilot effort in delivering rural water supply and sanitation solutions, particularly areas linked to urban and peri-urban service delivery. Phase II of the APL is not expected to include any further urban investments and would instead be limited to the intervention in rural areas and, based on the results of preparatory work leading up to Phase II, would likely also address broader issues of water resources management and the competition for scarce water among agricultural and domestic use. Though water scarcity is a pressing issue, particularly in the north of the Department, the most urgent issues affecting availability of water supply for household use in urban areas relate to system investment and management, which would be addressed under Phase I.

16. Triggers for the advance towards Phase II of the APL would be linked to the readiness of the Department in addressing the rural water supply and sanitation agenda in a manner consistent with sustainable service provision, and in the context of the Department's highly dispersed indigenous population. The initiation of preparation of Phase II of the APL is likely to begin during the implementation period of Phase I and, in fact, implementation of Phase II could begin as soon as the triggers are met without waiting for the completion of Phase I. The triggers are:

- The completion of a detailed assessment of rural and indigenous needs, including a comprehensive Indigenous People's Plan.
- The finalization and publication of a departmental rural water supply strategy that takes into consideration the result of the Indigenous Peoples Needs Assessment and consultation process.
- The development of an institutional arrangement for service delivery and the management and maintenance of rural water supply and sanitation investments.
- Successful completion of four rural pilots.

17. Because the Phase II rural water supply and sanitation agenda will be developed through a consultative process and adopt a more community driven development (CDD) approach, it is possible that it will be embedded within a multi-sectoral investment program that would address a broader range of investment demands by rural indigenous communities.

3. Project development objective and key indicators

18. The objective of the proposed Project (APL Phase I) is to improve the quality of water supply and sanitation services in urban and peri-urban areas of La Guajira, moving towards complete coverage with continuous supply of potable water for urban areas. Specifically, the proposed operation will increase service quality for water supply, sanitation, and wastewater treatment in urban areas for 300,000 consumers and improve the sustainability of service by (a) supporting utility institutional performance through the Government of Colombia's "Specialized Operator" policy and (b) delivering the necessary water and sanitation infrastructure.

19. In concrete terms, it is expected that by the end of implementation of the operation, the Project will have: (a) achieved 90% coverage of continuous piped, treated water supply services for urban residents in participating municipalities; (b) achieved 72% connection to sewerage networks and basic wastewater treatment services for the urban population in participating municipalities; (c) implemented a small pilot rural water supply and sanitation sub-project to provide basic services to 11-16 rural communities; and (d) defined an overall strategy for water supply and sanitation for the Department including indigenous communities.

20. The key indicators for the operation include:

- 300,000 consumers receive improved access to reliable and safe water supply and sanitation services.
- 90% of households in participating municipalities have access to safe water supply via a municipal network.
- Average hours of water services per day (based on 7-day week) for urban households connected to a municipal water supply network increased to 22 hours.
- 72% of households in participating municipalities are connected to a municipal sewerage network.
- Unaccounted-for water is reduced to 40% of total water production by all municipal water operators.
- Revenue collection rate, or the proportion of the total billed water value actually collected by the operators, increases to 63%.
- Successful implementation of 11 rural pilot water supply systems serving 19,000 households.

4. Project Components

Component 1. Urban Water Supply and Sewerage Infrastructure Component (US\$ 129.0 million, including US\$ 76 million of Bank financing)

21. Component 1 of the Project would finance civil works, equipment, and services for water supply and sanitation in the participating municipalities of the Department of La Guajira. It is expected that at least 10 municipalities of the Department will participate in the urban investment component. The loan funds allocated for each city have been determined on the basis of the financial model utilized during the preparation of the respective contract renegotiations and the availability of loan funds. The funds allocated for each city will not be transferred to the Specialized Operator or local utility but rather used to finance infrastructure works considered to be of high priority by the operator and which have been approved by the municipal authorities and by the Program Implementation Unit.

22. The Project supports the Government of Colombia's policy to leverage management expertise in the delivery of basic water and sanitation services and Component 1 is based upon

the “Operation with Investment” model used throughout the country. Under the Operation with Investment approach, operators at the municipal level for the 15 cities of the Department would be private companies or joint ventures with proven experience in operating similar size water and sewerage systems which can mobilize the required funds for investment. The investment commitment of the operator of each city is set based upon the level of tariffs agreed upon with municipal authorities. In the municipalities of La Guajira, the arrangements are in general operation contracts under which the operator has committed to provide part of the required investment while the remaining resources will come from the public sector, in this case, primarily from the Department. In all cases for La Guajira, the tariff levels acceptable to the municipal authorities cover the operation and maintenance costs of the utility, and thus the utilities are financially viable.

23. The basic principle of the operation contract is that it only commits the operator to provide an investment compatible with the level permitted by the authorized tariff. The financing of any additional investment is the responsibility of the public sector, and Project funds will be used to provide to participating utilities the amount of support needed. The operation contract stipulates that the investment program over time (the Works and Investment Plan or POI) is required to bring the system to optimal conditions, as proposed by operators, and including a commitment of the operator to finance and construct the part of it which corresponds to the operator according to its proposal. When public funding is required, its use and allocation will be derived from the POI. The Department, through the Program Implementation Unit, with guidance from the MAVDT, and the municipal authorities will reach an agreement with the operator regarding the works and/or goods of the POI.

24. The amount which the public sector has committed to provide will not be made available to the operator, for his discretionary use, but will be rather used to finance part of the infrastructure works stipulated in the POI, which will be proposed by the operator (e.g., works considered by the operator as high priority works) and approved by the municipal authorities and the Department through the Program Implementation Unit. In this way, the operator will not receive a financial contribution from the public sector, but rather the right to operate additional infrastructure which is provided by the Department as a grant and is owned by the municipality. In this manner, the Department, in effect, finances additional infrastructure for the city residents and not the provision of funds to the operators, and this approach has been found to be more publicly palatable.

25. In each city, the works financed will be designed by the operator-managed utilities and the executing agency of each sub-project will be the water utility of the city. This arrangement will ensure that the infrastructure provided will be totally satisfactory to the operator and will meet operational needs. The works and goods financed with Bank proceeds will be procured through public bidding processes in accordance with the Bank procurement guidelines. The supervision and control of the concession contract will be the responsibility of the contracting agency, i.e., the municipality or regional association of municipalities, which will receive continuous support from the Program Implementation Unit in these matters.

26. In La Guajira, nine of the fifteen municipalities in the Department are already under specialized independent management through three separate contracts: (i) Riohacha operated by Aguas de La Guajira; (ii) Maicao, operated by Aguas de la Peninsula, which was supported under another Bank Project; and (iii) the regional association of the municipalities of the south, Aguas del Sur, owned by the same operator of Maicao which includes the municipalities Barrancas, Distracción, Villanueva, El Molino, Hato Nuevo, Fonseca, and San Juan del Cesar. The Department and municipalities have initiated a process of restructuring the contracts to achieve a

significantly greater level of service quality than that initially envisaged at the time of the signing of the contracts and intends to utilize Loan funds to provide the necessary investment support as described above.

27. During preparation a series of studies were undertaken to assess and determine the amount of investment required to meet the targets established by the Department and municipalities for water and sanitation coverage and continuity. During the initial stages of implementation, the operators will finalize their detailed investment plans which will be subject to the review and final approval of the Department (through the PIU), municipalities, and where applicable, the regional association of municipalities, all with support of the MAVDT and the Bank.

28. For municipalities which are not included in the three existing contracts but choose to join the program during implementation, new bidding processes based on the negative concession / least-subsidy concept will be carried out and new operators will be selected. The existing operators will be permitted to submit proposals to these bidding processes.

Component 2. Rural Pilot Component (US\$ 7.0 million, including US\$ 7.0 million of Bank financing)

29. Component 2 of the Project will finance a small pilot of activities to improve the access of rural, mostly indigenous Wayúu, communities to appropriate water supply and sanitation services in an efficient and sustainable manner. The objective of the component activities is to develop a replicable approach and model for scaling up during Phase II of the APL. The Component would finance culturally appropriate *in-situ* solutions in a number of rural communities in the Municipalities of Manaure and Uribia in the north of the Department of La Guajira. The pilot approach would include activities for (a) social formulation of sub-project design using participatory methodologies; (b) physical investment; (c) the establishment of community-based institutional arrangements for sustainable management of investment; and (d) education for hygiene and water resources management, leveraging the traditions and cultures of the indigenous Wayúu. In broad terms, the activities would revolve around the establishment of a community micro-enterprise to manage the operation of the basic service, and the component activities would include activities with the regional office of SENA (*Servicio Nacional de Aprendizaje*, or National Learning Service) to support technical assistance and capacity building activities which would accompany the pilot investments. The component is described in detail in Annex 15.

30. While there is no doubt that an improved access to water and sanitation services is beneficial to indigenous peoples, the Project incorporates consultation mechanisms to ensure that the vital interests of indigenous peoples are not negatively affected and that Project activities are carried out in the selected pilot areas after a social assessment, consultation process, and communications campaign, all with the support of the indigenous communities. To this end, specialized consultants within the Program Implementation Unit will be responsible for coordinating, overseeing, and ensuring compliance with the Indigenous Peoples Planning Framework (IPPF) agreed upon during preparation.

31. Once final selection of sub-projects takes place, the pilot projects will be phased in, two-by-two, to ensure the institutional capacity to develop a comprehensive Indigenous Peoples Plan (IPP) for each selected site. The sites will be prioritized by the *Secretario de Asuntos Indigenas* (SAI) of the Department in dialogue with the PIU, considering the following factors: (a) existing leadership within community/pilot project area, (b) evidence of past collective

action/collaboration towards a common goal, and (c) receptivity and openness to the sub-project (i.e. willingness to contribute to developing sustainable and appropriate water solutions). These factors would be considered in order to begin the pilot component with activities that have a relatively higher probability of success. The IPPF would be continually revised based on learning-by-doing to refine the participatory methodology for achieving sustainable and appropriate water solutions in the rural areas.

32. Since each individual subproject would require an IPP prior to being financed, the grievances expressed by Wayúu Indigenous Peoples organizations would thus be addressed early on, particularly their concerns about the possibility of being excluded from the consultation process or eventually alienated of their water rights, as well as any complaints about the location of the wastewater treatment lagoons and their effect on human health. Given the traditional social exclusion of indigenous peoples, it is essential to provide for full participation of beneficiaries/affected-peoples in order to design and implement successful subprojects.

Component 3. Program Management and Analytical Activities (US\$ 7.0 million, including US\$ 7.0 million of Bank financing)

33. Component 3 of the Project would finance goods and services associated with the management of Project financed activities and related analytical work for the design of the follow-on phase of the APL. Component 3 will include analytical studies in the areas of groundwater resources as well as activities to improve transparency and accountability through performance management and the dissemination of information about sector and utility performance. Specifically, the component would support the functioning of the Program Implementation Unit with technical specialists and strengthen the fiduciary and safeguards management capacity of the entity.

Table 2: Project Components and Financing Sources				
Components	Indicative Costs (US\$M)	% of Total	Bank-financing (US\$M)	% Bank-financing
1. Urban Water Supply, Sewerage, and Wastewater Treatment Component	129.0	90.0%	76.0	84%
2. Rural Pilot Component	7.0	5.0%	7.0	8%
3. Program Management and Analytical Studies	7.0	5.0%	7.0	8%
Total Project costs	143.0	100%	90.0	100%
Front-end fee			-	
Total financing required			90.0	

5. Lessons learned and reflected in the Project design

34. Project design reflects the Bank's experience in the preparation and implementation of environmental management and urban water supply and wastewater treatment projects throughout the world, and specifically borrows from the lessons learned from the design of operations involving the financing of local infrastructure and reforms to institutional arrangements for local service provision in the wastewater sector, particularly in Colombia.

35. Some of the critical lessons learned and applied in this Project's preparation include:

- The need for clarity in terms of institutional roles and responsibilities among the multiple stakeholders at the Central Government and local levels;
- The need for a clear and transparent institutional structure when passing resources between levels of government;
- The need for enhanced public consultation in design and public information during implementation of major infrastructure;
- The importance of integrating Project activities within a broader context of sectoral reform, with a focus on regulatory and legal issues;
- The need for effective coordination with other donors working in the sector.
- The need to accompany investment with appropriate reform measures at a utility level to ensure institutional and financial sustainability of the investment.
- Tariffs need to be set at such level that revenues will cover at least O&M costs; otherwise, the utilities will not be viable.
- The proposed Operation with Investment model is already functioning successfully in Colombia and as such, the principles of institutional reform proposed under the Project have a proven track record in Colombia.
- Selected wastewater treatment processes need to be based on appropriate (i.e. low cost, simple to operate and effective) technologies. Experience from Colombia and elsewhere has shown that application of highly sophisticated processes results in systems collapse due to shortage of O&M financing capacity and difficulty of operation.
- A significant period is required between signing a contract with a Specialized Operator and the improvement of service (the construction period). Public dissemination and outreach is thus critical.

36. The design of the operation has been undertaken specifically in the context of the ongoing Loans 7077-CO, 4507-CO, and 7281-CO which established a model for the passing of public subsidies for capital investment to Specialized Operators working under negative-subsidy concessions. Some of the key results of these operations include:

Table 3: Selected Key Results of Loan 7077-CO (Water Sector Modernization Project) and 4507-CO (Cartagena Water Supply, Sewerage, and Environmental Management Project)						
	Cartagena		Barranquilla		Soledad	
	Before Contract	After Contract	Before Contract	After Contract	Before Contract	After Contract
	1994	2006	1991	2002	2001	2003
Water Coverage	68%	99%	60%	99%	43%	73%
Sewerage Coverage	56%	95%	50%	96%	41%	64%
% Domestic Metering	30%	99%	25%	85%	34%	54%
Unaccounted for Water	60%	40%	70%	39%	N/A	N/A
Production capacity (m ³ /sec)	1.6	3.1	-	8.2	3.6	4.3
Continuity of Service (hours / day)	7	24	18	24	12	18
Response to complaints on pipe breaks (# of days)	6.0	0.6	14	0.6	N/A	N/A
Connections in Poor Areas as percentage of new connections	-	92%	-	82%	N/A	100%

37. The proposed design is also consistent with emerging evidence in Colombia of the need to promote regional solutions for water supply and sanitation.

38. Component 2 has also been designed to take into account specific lessons learned from the regional experience of indigenous peoples' focused operations. Specifically:

39. ***Interventions need be designed in a demand-driven way*** and address issues of poverty and social exclusion. Community based approaches are more effective than top-down approaches. Component 2 activities would thus apply participatory approaches in determining community-level infrastructure investments, for developing institutional arrangements which are both culturally appropriate and are community-based. Community participation in execution, supervision, and M&E is also an important feature of the Project design.

40. ***The interventions for resolving rural water supply and sanitation should be simple*** with a workable funding mechanism, institutional mechanism and an adequate operating manual. Component 2 is designed to promote locally owned and community managed investments which require minimal outside intervention for operation and maintenance. The community micro-enterprise approach, which has been used with success elsewhere in Colombia, includes (a) a proven methodology for participatory diagnosis of water supply and sanitation sector; (b) feasibility studies of technical, administrative, legal and financial aspects of the micro-enterprise; (c) efforts for "socialization" of the proposed structure of the micro-enterprise; (d) assistance in establishing the micro-enterprise and support for preparing the contractual agreements with the municipality and the indigenous community; (e) technical assistance in basic operation and maintenance of the system, entrepreneurial management and implementation of a software system for the micro-enterprise; and (f) direct support for monitoring of the micro-enterprise during the first six months.

41. ***Robust implementing agencies are critical for the success of indigenous-focused interventions.*** Weak implementing agencies put Project success at risk, and the institutional weaknesses in La Guajira have been well documented. Government capacity – and specifically with entities specifically focused on indigenous affairs, with structurally strong mandates, clear line functions, adequate resources, and which are not easily prone to capture by indigenous leaders – is critical. The Project includes activities and financing, under Component 3, for strengthening the capacity of the implementation unit in engaging indigenous Wayúu communities and as the APL moves to Phase II, which would be focused on scaling up the intervention in rural indigenous communities, activities would be directly built into preparation to strengthen the Departmental capacity to address these issues within the context of the sector-focused operation.

6. Alternatives considered and reasons for rejection

42. The Government, Department, and Bank considered one key alternative design approach, namely the preparation of a single large investment operation to address needs in both urban and rural areas, with integrated structural reforms to create institutionality at the Department level to strengthen the capacity of the Department in the oversight of water resources management as well as basic service delivery. Such an approach would have included, in a single operation, a large program of rural water supply investments. Instead, a decision was taken to split the operation into a two-phase APL to allow for (a) pilot efforts during the initial phase to define scaleable and replicable models for rural service provision in the context of the indigenous demographics and water-scarce hydrology of La Guajira; (b) the consideration of rural water supply issues within

the context of a potential broader intervention under the second phase for community-driven development approaches that might include other investment sectors in addition to basic water supply and sanitation in order to meet community demands; and (c) the need for greater analytical work and potential regulatory reform so as to address the issue of institutional strengthening for broader sector management at the Department level under the second phase of the APL.

C. IMPLEMENTATION

1. Partnership arrangements (if applicable)

43. The operation is a joint effort between the Department of La Guajira, the National Government, and local entities including CORPOGUAJIRA (the local environmental agency or *Corporación Autónoma Regional*) and the regional office of the *Servicio Nacional de Aprendizaje*, SENA. Component 2, in particular, has been designed with a series of partners active in the region, including SENA, CORPOGUAJIRA, local NGOs, and others. Throughout Project conceptualization and design, the central government has played an important role, and the MAVDT and other central Government entities are fully expected to remain engaged throughout implementation. Multinational companies, including the concessionaire operating the Cerrejón coal mine and Chevron, which operates an important offshore gas concession, have expressed interest in supporting the Department's program with direct financial support.

2. Institutional and implementation arrangements

44. Project implementation arrangements have been developed with the recognition of the need for highly effective management and coordination given the complex institutional and political environment in which the operation is being executed. Proposed implementation arrangements are based on experience with two ongoing national operations, the Water Sector Reform Assistance Project (Loan 7077-CO) and the Water and Sanitation Sector Support Project (Loan 7281-CO), which have helped define the framework for channeling Government grant resources for capital investment to local service providers and to establish the operating procedures for the functioning of Specialized Operators in water service provision.

45. The prevailing policy and legal framework in the water and sanitation sector in Colombia defines municipalities as the primary entities responsible for service provision with important policy, financing and regulatory functions being served by MAVDT, DNP and other key national agencies. The policy framework encourages the use of Specialized Operators, either public or private, to manage water and sanitation utilities either at the municipal level or across a group of municipalities and establishes a transparent and competitive framework for channeling capital investment resources to local service providers. The Department (*Gobernación*) has no formal responsibility for water and sanitation and most of the Departments are not involved in this sector.

46. In the case of La Guajira, however, the Department has decided to place a strong policy emphasis on improving access to and the quality of water and sanitation services given ongoing poor sector performance. In particular, the Department intends to support through the Project the implementation of two activities: (i) improvement of the management of the municipal water utilities through the continued incorporation of Specialized Operators in the management of the services; and (ii) provision of capital investment grants to these utilities managed by Specialized Operators so as to meet ambitious sector performance goals and ensure financial sustainability. The involvement of the Department in the water sector is considered temporary with the aim of accelerating improvements in sector performance, and will continue only during Program

implementation. Upon the completion of the Program, and achieving sector improvement goals, direct support of the Department in the sector will end.

47. Borrower and Executing Agencies. The Borrower for the Loan would be the Department of La Guajira and the Government of the Republic of Colombia would issue a sovereign guarantee for the sub-national debt. Implementation of the Project, as well as overall Program management, is the responsibility of the Department of La Guajira's Program Implementation Unit (PIU). A series of instruments have been designed to ensure effective management, oversight and coordination of Project activities. These instruments are reviewed in greater detail below.

48. Independent and Professional Project Management. Primary responsibility for Project management will be assumed by a professional Program Implementation Unit (PIU). The Department of La Guajira has established a PIU which will be staffed by a team of competitively contracted professional consultants with proven expertise in: (i) water and sanitation engineering; (ii) project management and finance; (iii) operational and commercial management of utilities; (iv) structuring the process for hiring Specialized Operators; (v) law and contract management; (vi) community participation, public education and communications; (vii) Bank safeguard policies; (viii) environmental management; (ix) social development and indigenous people's issues; and (x) fiduciary functions including procurement and financial management. The PIU has been established and the *Gobernación* has hired a specialized consulting firm which will provide the required personnel. This consulting firm was hired by the Department of La Guajira through a competitive process to assist in preparation and this unit will be strengthened during implementation.

49. The PIU will report officially to a delegated representative of the Governor (e.g. *Secretaria de Hacienda*) who will have the formal authority to make Project-related decisions, sign contracts and communicate with the Bank and other external actors on behalf of the Project. The PIU will maintain a direct line of communication with the Bank in relation to routine supervision and fiduciary issues. Core tasks of the PIU will be to provide technical, financial, legal, social, communications and environmental support to the Specialized Operators, municipalities to facilitate the implementation of all Project activities. Annex 6 includes a more detailed description of PIU responsibilities.

50. The use of a PIU in the case of La Guajira is consistent with the Bank's approach in Colombia which, while establishing that the "default" *modus operandi* for Bank-financed operations would be to use relevant line agencies, in the case that no such entity exists, does not need to exist after Project completion, and when the PIU would not create a parallel entity to a permanent and existing institution, the use of PIU can be justified.

51. Execution through Specialized Operators. The Project, consistent with national sector policy for capital investment subsidies, will work only with municipalities that have a Specialized Operator that is commercially independent. Specialized operators have full responsibility for managing the utility which would include tariff setting, billing and collection, and provision of the services, all in accordance with the terms stipulated in their contracts. Most municipalities in the Project area have already hired operators. In these cases, existing operator contracts would have to be restructured and renegotiated as the Project will introduce new, more ambitious performance targets and investment requirements. Some municipalities, however, do not currently have Specialized Operators and are expected to either associate with an existing operator or initiate a new Specialized Operator contract during Project implementation. The PIU will manage the restructuring and renegotiation of the existing contracts so as to adapt them to the

new performance targets for the Project. Additionally, the PIU will prepare and implement the bidding processes for hiring the required new operators.

52. Specialized operators will play a key role in Project implementation with two core functions: (i) preparation of annual capital investment plans; and (ii) execution of approved works under Component 1 and associated procurement and financial management functions. Operators will prepare investment plans that will be reviewed by the Project Technical Committee and approved by the Project Executive Committee. Operators will subsequently be responsible for managing the procurement processes for all works, goods and services associated with the implementation of these investment plans.

53. Fiduciary Agent and Flow of Funds. All Project funds – including loan proceeds and Department, municipal and national government counterpart funds – will be managed by an independent fiduciary agent (*fiduciaria*). The fiduciary agent will be contracted through competitive public bidding process by the Department.

54. Department counterpart resources will come from royalty revenues and will pass directly from INGEOMINAS and ANH to the fiduciary agent in their currency of payment. Municipal counterpart resources will come from transfer funds under Law 715 which specifies that all transfer funds must pass first to municipal accounts. The municipality will subsequently pass counterpart funds to the fiduciary agent based on terms specified in the *Convenio de Apoyo Financiero* (Financial Support Contract) that will be signed between the Department and the municipality. Municipalities that fail to transfer counterpart funds will not be eligible for works under the Project. National Government counterpart funds will similarly be deposited into the fiduciary account. Lastly, Bank proceeds will pass from a Special Account to the fiduciary agent based on disbursement procedures summarized in Annex 7.

55. The fiduciary agent will manage separate accounts for each source of Project funds. Upon the approval of annual capital investment plans, the PIU – with the clearance of the Project Executive Committee – will assign Project funds to approved works. The primary authorizing agent (*fideicomitente*) for the fiduciary account will be the delegated representative of the Department of La Guajira assigned by the Governor. This representative will serve as the sole agent authorized to issue instructions to the fiduciary for payments under Components 2 and 3. Due to the high volume of transactions expected under Component 1, however, the Project will delegate this authority to issue payment instructions to a designated representative for each Specialized Operator on a contract-by-contract basis. Upon the approval of each bidding process the Departmental authorizing agent will send special instructions to the fiduciary identifying the authorized delegated representative of the Specialized Operator.

56. The fiduciary agent will handle all payments for works, goods and services of each operator under Component 1 and for Component 2 and 3 and for Loan repayment. While the use of a *fiduciaria* to manage the Project represents, in some ways, a bypassing of the formal public sector budget instrument, the use of fiduciary agents in Colombia by sub-nationals and the central Government is a widely used tool and allows for a greater level of transparency and accountability in high risk or complex environments. Accounting for Project costs, expenditure, and indebtedness remains fully within the formal budget and sub-national indebtedness process and framework and thus the approach does not represent, in any way, off-budget financing or accounting.

57. Role of Municipalities. Municipalities will be closely involved in Project oversight and agree to provide specific support in implementation. In particular, municipalities will: (i) agree to

hire Specialized Operators in cases where operators are currently not in place and renegotiate existing operator contracts; (ii) sign new or renegotiated investment contracts with the operator; (iii) accept the financial support of the Department and sign the respective *Convenio de Apoyo Financiero* with the Department; (iv) transfer Law 715 funds or municipal royalties funds to the fiduciary agents periodically as agreed in this contract; (v) transfer the use of all the water and sanitation assets to the operator during the contract period; (vi) obtain all licenses necessary for operating the water and sanitation services as the municipality officially remains in charge of the services; (vii) monitor the operation with investment contract; and (viii) participate in both the Project Executive Committee and Project Technical Committee.

58. Role of the Department. The Department would agree to provide financial support to the water sector and sign the Loan Agreement with the Bank, the Guarantee Agreement with the National Government and the financial support contracts with the municipalities. Under the conditions of the Loan Agreement and Guarantee Agreement, the Department has agreed to provide a share of its current revenues – primarily from its royalty revenues – to the fiduciary agent, both as counterpart funds and as debt service funds. The Department has hired the PIU and agrees to work with and support it throughout Project implementation, signing all the contracts and documents as necessary (for instance, Loan withdrawal applications), and to participate in both the Project Executive Committee and Project Technical Committee.

59. Role of the National Government. The MAVDT, which represents the National Government in the Project, has been deeply involved in preparation and in providing technical, environmental, social, financial and legal support to the Department, the municipalities and the operators. The MAVDT, along with DNP and MHCP, have served as a critical proponent of the operation amongst local and departmental actors in La Guajira and has also performed an important role in obtaining approval of the Project within the Government and in the Congress. The MAVDT will continue to provide support and guidance during Project implementation through its participation in both the Project Executive and Project Technical committees. In this capacity, the National Government will be involved in the renegotiations of the existing operation contracts, approval of investment plans and the supervision of overall Project implementation.

60. Project Executive Committee. A Project Executive Committee will be established and will include senior representatives of the Department, MAVDT, CORPOGUAJIRA and municipalities. Representatives of the contracted fiduciary agent will also participate in the committee as observers. The executive committee will meet on a quarterly basis and will be responsible for providing overall guidance on implementation. Specifically, key committee responsibilities will include the: (i) review of overall PIU and Fiduciary Agent performance; (ii) approval of annual capital investment plans; (iii) approval of the designation of Project funds to specific contracts; (iv) approval of renegotiated and new contracts with existing or new Specialized Operators; (v) review lessons from Project monitoring and evaluation instruments; and (vi) provide guidance on specific implementation problems as they arise. The committee will ideally reach decisions in consensus. However, the MAVDT will retain veto power based on the terms specified in the counter guarantee agreement between the Department and Government.

61. Project Technical Committee. A Project Technical Committee will be established by the PIU with the involvement of technical staff from the Department, MAVDT, municipalities and Specialized Operators. Representatives of the contracted fiduciary agent will also participate in the committee as observers. The committee will meet on a monthly basis to provide technical guidance under implementation. Specifically, key committee responsibilities will include the: (i) technical review of annual capital investment plans; (ii) technical review and approval of designs, bidding documents and evaluations prepared by Specialized Operators; (iii) periodic review of

lessons from technical supervision instruments built into Project design; and (iv) the provision of guidance on specific technical problems as they arise. The committee will be constituted to include representatives of specific operators and municipalities as technical issues associated with these municipalities arise.

62. Contractual Agreements. A series of contractual and cooperation agreements will be signed in association with Project implementation. These include:

- a Loan Agreement between the Bank and the Department of La Guajira, with the National Government Guarantee;
- a contract with the fiduciary Agent;
- for each municipality, a Financial Support Agreement (*Convenio de Apoyo Financiero*) between the Department and the corresponding municipality and its Specialized Operator which would: (i) describe, in general terms, the investment program to be financed; (ii) stipulate the commitment of the municipality to use the appropriate procurement guidelines for executing the works; (iii) establish the funding obligations of the municipality and service provider (contribution of Law 715 transfers and own-source revenues including tariff income or other sources); and (iv) specify any additional conditions and issues associated with the contribution of investment funds by the Government, including the specific institutional reform targets for improving the financial and operational performance of local services;
- for each municipality, a side agreement (*Carta de Compromiso y Ejecución*) which would be signed at the same time as the Financial Support Agreement under which the municipality would agree with the special operator on execution and performance improvement arrangements and reflect agreements reached in the operator contract, departmental financing commitments and municipal commitments to transfer Law 715.
- for each municipality or association of municipalities, a new or renegotiated contract of operation with investment between the Specialized Operator and the respective municipality or association of municipalities; and
- individual contracts between the PIU or Specialized Operators for goods, works and services required under the Project.

63. Monitoring and Evaluation Framework. A rigorous monitoring and evaluation framework has been developed for the Project and is outlined in detail in Annex 3. Key elements of the Framework include: (i) extensive technical supervision instruments; (ii) rigorous Bank technical and fiduciary supervision; (iii) operational and commercial performance; (iv) consumer satisfaction surveys; (v) environmental health baseline and impact assessment; and (vi) mid-term and Project completion evaluations.

64. Instruments for Beneficiary Participation and Oversight. The PIU will execute outreach and dissemination activities for “socialization” of the Project. A staff member on the PIU will be responsible for ensuring that, prior to the finalization of each investment program (POI), activities are undertaken to disseminate the POI and allow for communities and their representatives to comment. In addition, throughout Project implementation, the PIU, through both its dedicated social specialist(s) and/or outsourced specialized activities for outreach and communication, would be responsible for: continuous local outreach, coordination of educational/environmental activities, screening subprojects for resettlement and/or potential impacts on Indigenous Peoples, establishing representative community committees (*Veeduría Ciudadana*, in accordance with Colombian Law), and allowing for Project management to understand and address grievances or comments on work plans or investment activities. The PIU will also monitor the performance of

the operators (including the coordination social/educational activities) during the Project implementation period and train the public utilities and build their capacity to monitor the performance of the operators after the Project closes.

65. Communications Strategy. Throughout the life of the Project, the PIU will carry out a communications effort to disseminate Project information to the widest possible audience, including diverse actors such as national and municipal governments, local and national media, contractors, community leaders, politicians, business leaders, social control organizations, indigenous communities, and the citizens of La Guajira. The strategy will publicize basic information such as the Project objectives, services to be delivered and their timetable, financing levels and sources, contracting arrangements, eligibility criteria, and work plans. A second but equally important aspect of the communications message will be the preeminence of transparency in this Project – i.e. all contracting and execution of public works will be public and open, and existing as well as Project-specific mechanisms for social control and public accountability will be used to ensure that Project activities are open to public scrutiny.

66. In order to ensure that citizen complaints about corrupt practices are channeled to the proper authorities and handled in a professional and appropriate manner, the PIU will make a special effort to publicize the channels available to report any irregularities or suspicions of corruption. Specifically, Project-related dissemination materials will explicitly include the confidential and toll-free telephone number for the Colombian Anti-corruption Czar (018000913040). More details can be found at http://www.anticorruccion.gov.co/buzon_denuncias/index.htm

67. Financial Management and Audit Arrangements. The Borrower is the Department of La Guajira. However, the Project is not aimed at improving the overall performance or financial management capacity of the Departmental Government, but rather the performance of the water sector in the Department, which is a municipal responsibility within the regulatory framework in place in Colombia. The Department decided to support improvements in water sector performance by allocating part of its income – primarily royalty revenues – as capital investment subsidies for the water and sanitation sectors in all the municipalities in La Guajira, at an annual amount of approximately US\$ 10 million per year during Project implementation and for the entire period of repayment. Thus, for the purposes of the Project, the Department acts as a facilitator to resolve the water sector issues and as a conduit of investment subsidies to the municipalities. However, the Department does not play an important role in managing municipal water utilities. This responsibility remains the municipalities which under this Project effectively delegate this responsibility to Specialized Operators.

68. Operational Manual. The Operational Manual is an essential tool for Project implementation and has been designed to maintain the institutional memory of the Project throughout its implementation and therefore includes all relevant information regarding the Project and procedures to guide the Department of La Guajira (detailed information on subproject evaluation, reviews and approval, instructions for document flows, standards for progress reports, procurement and disbursement procedures, operational agreements between the participating agencies, monitoring and evaluation arrangements, etc.). The Operational Manual is wholly consistent and based upon those prepared for Loan 7077-CO and 7281-CO, respectively. A draft Operational Manual was reviewed by the Bank prior to Negotiations and will be regularly updated during implementation as a “living document.”

3. Monitoring and evaluation of outcomes/results

69. The Project has been designed to be adaptable both during implementation and in the future phase of the APL based on a series of continuous monitoring and evaluation activities. Specific design elements of the operation include:

1. Regular monitoring of progress and investment indicators. Monitoring of implementation will be both quantitative as well as qualitative. The core progress indicators, in terms of both inputs and impacts, that will be measured during implementation are summarized in Annex 3.
2. Close monitoring of implementation capacity and program management. The institutional capacity of the Department of La Guajira is weak and the management of a sector investment program along the lines of the proposed operation is an ambitious effort. The Bank and Central Government recognize the need to support the Department in program implementation through regular, on-site supervision of its institutional capacity.
3. Monitoring of the performance of Specialized Operators in the context of existing concession arrangements. The regulatory structure of the water sector in Colombia includes rigorous and ongoing control of the performance of management operators by the *Comisión Reguladora del Agua* (CRA) and Superintendency of Public Enterprises (SSPD). In addition to formal regulation, the Project includes regular monitoring of public perceptions as related to the quality of services.

70. Monitoring of Social Perceptions and Ensuring Social Accountability of the Project. As part of the day-to-day oversight responsibilities of the Program Implementation Unit, a continuous mechanism to elicit citizen feedback will be established. In addition to specialized social staff within the Program Implementation Unit, activities are foreseen under Component 3 of the Project to finance an ongoing campaign of public outreach, dissemination, and feedback. The oversight approach would be handled by the PIU and contracted specialized consultants who would likely be either an NGO or local university. This community oversight mechanism complements the existing robust regulatory framework for water and sanitation but allows for a Project-specific mechanism under which citizens can voice concerns about Project implementation and the performance of utility operators.

71. This approach to Project-specific social oversight and feedback aims to dovetail with the established mechanisms under Colombian law for social accountability, an approach for building public accountability which relies upon civic engagement, where ordinary citizens and/or their organizations participate directly or indirectly in exacting accountability. Social accountability mechanisms can be initiated and supported by the state, citizens or both, but very often they are *demand-driven* and operate from the bottom up. These mechanisms include many actions and tools that citizens, NGOs and media can use to hold public authorities accountable such as report cards on services, opinion polls community score-cards, budget analysis, expenditure tracking, corruption monitoring and surveys. Such tools *complement* the formal accountability instruments of a country that are *supply-driven* (state control agencies, the Public Ministry) to help build good governance. In Colombia, social accountability has juridical, political and ethical foundations in the Political Constitution of 1991 and further legislative development, in particular (i) Law 134, 1994, which dictates the norms about the mechanisms for social participation, (ii) Law 850, 2003, which creates the *Veedurias Ciudadanas* (Citizens Oversight Boards) in a variety of public services and dictates the norms for their operation, and (iii) in CONPES document 3294, 2003 on

the Monitoring and Evaluation System in government (SINERGIA) in which accountability and social control is an objective to stimulate transparency and oversight by citizens.

4. Sustainability

72. Like most of the developing world, the key issue to enhancing the sustainability of water and sanitation service provision in Colombia is to move towards greater cost recovery for municipal service providers while maintaining affordability for users, especially the most poor. The national tariff and regulatory framework establishes a mechanism of intra-system cross-subsidies to provide basic services at less-than-full cost to the poor (defined as Strata 1-3). While such an approach has served to keep the unit cost of water service to the served poor at reasonable levels, in many cities, an absence of Strata 4 and 5 (and often 3) households, deficiencies in the existing cross-subsidy scheme and stratification system, given the configuration of demand and lack of proper tariff studies (which the utilities are meant to undertake by law) are a serious challenge/constraint to the financial sustainability of service provision. The Program seeks to directly improve the sustainability of service provision by supporting efforts to put in place capable management of urban utilities and putting those utilities on a direct path towards financial and operational sustainability. Such management, in part, reduces political interference in the provision of public services and enhances the technical capacity to resolve service problems. Sustainability will be primarily addressed through (a) the incorporation of Specialized Operators who are capable and interested in maintaining high levels of services; (b) the provision of capital investment subsidies which will ensure the construction of appropriate required infrastructure; and (c) tariffs which will cover operation and maintenance costs.

5. Critical risks and possible controversial aspects

73. La Guajira is a socially, environmentally and economically complex region and any risk assessment must be understood in the context of this reality. This section contains a summary description of the major risks identified by the Bank based on assessments undertaken by specialist consultants during preparation and existing studies and consultations⁹. The key studies completed as part of preparatory activities include:

1. Social Analysis – focuses on the social dynamics in the urban areas of La Guajira.
2. Indigenous People Planning Framework – provides for screening and review of all subprojects within the scope of the Project and including, among other elements, guidelines for consultation and participation before any intervention in rural indigenous areas.
3. Resettlement Policy Framework – clarifies principles, organizational arrangements, and design criteria to be applied to subprojects during Project implementation.
4. Environmental Assessment and Environmental Management Plan – including technical and environmental specifications for water supply and sanitation Projects, including consultation and dissemination activities.
5. Independent performance assessment of existing operators.
6. Institutional and political risk analysis.
7. Information generated during Project preparatory activities and missions and discussions with the borrower, existing operators and other relevant stakeholders and institutions.

74. The studies point out a number of risks that may directly or indirectly threaten the Project from achieving its development objective. The main risks identified are presented in the table below with a description of the risk and the mitigation measures that have been included in the

⁹The reports are available in the Project Files.

design of the Project to manage each risk. The underlying social context of acute poverty and historic exclusion of the indigenous Wayúu must be kept in mind in understanding the risk profile of the Project, as they form the core of the main risks affecting an otherwise technically straightforward and much needed Project. La Guajira is characterized by a diverse population with a history of social exclusion, inequality and poverty in a region of political instability and, until very recently, a deeply rooted underground economy, in the midst of unanswered claims from civil society and NGOs of corruption cases and rights violation issues, where there is little credibility of politicians and citizenship trust in Government's plans. Consultation and outreach activities will be needed to gain consensus and social ownership and legitimacy for the Project.

75. Existing social tensions – potentially exacerbated by further investments – could erode the Project's ultimate development goals. In particular, the risk of opposition specifically to the Project by affected (or not) indigenous communities, as a reaction to current wastewater treatment and disposal solution in Maicao and other cities, or by lack of sufficient consultation and consensus and/or agreement as to the appropriateness of the Project's phasing and investment prioritization, is substantial. As regional and international experience demonstrates, water is a highly politically charged and socially sensitive sector, and more so in an area as dry as La Guajira where the rural Wayúu people most suffer the consequences of impoverishment and lack of access to safe water sources.

76. The Project includes solid risk mitigation measures through its own implementation arrangements and the activities to be funded out of the loan in its different phases. These can contribute significantly to mitigate the specific Project risks. Some mitigation measures will also improve the grounds for achieving better overall public sector governance and accountability – at least as far as the water and sanitation sector goes. Obviously, the effectiveness of these mitigation measures will largely depend on the ability and capacity of the regional and local authorities to adequately implement Project activities as envisaged.

77. The table includes a rating of the specific risk commenting on before and after the mitigation measure, as well as any relevant comments as to the difficulty of implementation of the relevant measure.

Table 4: Critical risks and possible controversial aspects

Risk	Mitigation	Residual Risk Rating after Mitigation
<p>1. Social unrest and opposition to the Project from the Wayúu people, NGOs and other historically neglected minorities. The Wayúu people have been generally left behind in the many years of failed efforts to bring sustainable development to La Guajira and are conscious of the wealth generated by extractive industries in the Department. There are historic demands and long standing complaints from the Wayúu on issues related to human rights violation, social exclusion and discrimination from the regional authorities - including supposed forced displacements to allow the expansion of mining activities and the lack of compliance with promises to provide them with access to basic services. The Wayúu people have suffered further displacements and attacks from illegal armed groups as recently as the year 2006. In this charged political environment, any major investment initiative to be undertaken at a departmental level is bound to be questioned from the population that feel historically excluded, especially if there is insufficient consultation and communication of objectives. On the other hand, the Project – and the Bank - is subject to being associated with any event occurring or in its areas of intervention.</p> <p>Because of the dual citizenship of the Wayúu and their semi nomadic patterns – they travel frequently from one country to the other – the Project is also tainted by any political tension that could flare up in this regard between the Venezuelan and Colombian borders.</p> <p>There are other factors that could contribute to social animosity towards the Project, including a potential reduction in employment given the deepening of the sector structure around a formal market for water and sanitation services.</p> <p>Unmitigated Risk Rating: 4</p>	<p>A communication and outreach campaign has been launched and put in place during the finalization of preparation and will continue in earnest during the first year of the Project. The communications strategy will be complemented with measures to improve the publicity, transparency and regularity of information sharing with the public in the future, especially the Wayúu. During Phase I, in addition to the pilot rural sub-projects, Bank support would be utilized to consolidate a departmental vision for rural solutions as well as a wide consultation process with the Wayúu communities to ensure the exercise of their decision making rights and participation in the development process. Support under the loan will be linked to the readiness of the Department in addressing the rural water supply and sanitation agenda in a manner consistent with sustainable service provision and in the context of the Department's highly dispersed indigenous population. In preparing for this, the following are envisaged:</p> <ul style="list-style-type: none"> • Completion of a detailed assessment of rural and indigenous needs, including a comprehensive social assessment and consultation process to ensure cultural appropriateness of the interventions, and other relevant aspects of the program. • Finalization and publication of a departmental rural water supply strategy that takes into consideration the result of the indigenous people needs assessment and consultation process. • Development of an institutional arrangement for service delivery and the management and maintenance of rural water supply and sanitation investments. <p>Work would include an analysis of the formal and informal water and sanitation markets to identify opportunities, risks and impact of establishing a formal water supply market on employment, service quality, customer satisfaction, etc.</p>	<p>This risk is considered high (4). The underlying social reality - without appropriate and solid measures put in place and proactively led by the authorities of La Guajira - means a very high risk for opposition to the Project from the Wayúu groups and other incumbent organizations.</p> <p>The Project will only achieve broad consensus amongst the various population groups in La Guajira - and therefore full social legitimacy - to the extent that the authorities succeed in implementing a broader consultation effort with the entire population.</p>

Table 4 (cont.): Critical risks and possible controversial aspects

<p>2. Social conflict and negative impacts on the Wayúu from municipal wastewater treatment and disposal in rural and peri-urban areas.</p> <p>The environmental degradation and social conflicts related to the management and disposal of wastewater is a problem in most of La Guajira's municipalities. In particular, in the Municipality of Maicao, the current solution includes final disposal of the municipal wastewater generated in the urban center to lagoons located in the nearby rural area of Maicao, in legal territory of the Wayúu. The Wayúu feel very strongly about the trespassing and violation of their land rights in the construction of these lagoons and blame them for spreading diseases especially amongst the children, since it is currently in a state of disrepair and constantly overflows in the nearby land. For years now they have been demanding the closure of the lagoons. The current operator reports that since they took over the services a couple of years ago, the Wayúu have opposed and confronted any attempts from the authorities and sewerage responsible agency to execute any maintenance works, and are very distrustful of any negotiation with the local and regional Governments. The lack of maintenance is causing the environmental damage to worsen. The Government of the Department recently involved itself in the negotiations between the Wayúu and the Municipality to re-establish a dialogue and believes these attempts have been more successful than previous ones in reaching agreement on the solution to the problem.</p> <p>The Department's capital, Riohacha, faces a similar challenge in finding an appropriate solution for the treatment and disposal of their municipal wastewater. The environmental authorities press for a solution to the problem in a manner that would comply with the environmental regulation, but the construction of lagoons – in principle technically acceptable - would affect Wayúu lands and is considered therefore socially unacceptable. Other available options – such as a tertiary treatment plant or appropriate disposal in the ocean – present their own financial sustainability or legal compliance issues.</p> <p>Unmitigated Risk Rating: 3</p>	<p>The Project incorporates two tools that will help to manage this risk:</p> <p>Application of Indigenous Peoples Planning Framework (IPPF): The Indigenous People Planning Framework tool developed for consultation in indigenous areas will be utilized for interventions that might affect indigenous people to ensure that, if necessary, those affected by the Project receive culturally appropriate social and economic benefits and potential adverse impacts are avoided, minimized mitigated or compensated.</p> <p>This framework establishes that as part of Project preparation, a process of free, prior and informed consultation with the indigenous people's communities that may be affected by the Project at each stage will be undertaken to fully identify their views and ascertain their broad community support for the Project.</p> <p>Environmental Assessment Screening: Furthermore, all sub-projects - and in particular the discharges to water bodies used by indigenous communities - will be subjected to EA screening, definition of required environmental work; application of environmental technical specifications and construction standards; implementation of required environmental work; and environmental monitoring.</p> <p>Additionally, outreach and communication efforts initiated during preparation and mainstreamed into the responsibilities of the implementation unit will help to mitigate social risk and conflict.</p>	<p>Given the conflict situation already existing in Maicao, this risk is considered substantial (3). For investments to be financed in the future under the Program supported by the proposed loan, the consultation process would aim to ensure appropriate consultations and broad community consensus for the investments.</p> <p>However, given the sensitivity of this issue and its past history, the risk of this issue being a cause of social tension, is still considered high.</p>
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Table 4 (cont.): Critical risks and possible controversial aspects

<p>3. Added social tension derived from the phasing of the investment. A decision was taken at the initial stages of preparation to phase the investments in urban and rural areas under APL 1 and APL 2 according to the different readiness for implementation and levels of complexity of both types of interventions, as well as to allow for sufficient preparation work in the indigenous areas. In the context described above, the prioritization of investment in the urban areas over the rural through the proposed APL could further exacerbate the inequality and increase the existing social tensions and overall feeling of exclusion and injustice of the Wayúu people.</p> <p>Unmitigated Risk Rating: 2</p>	<p>The mitigation measures described above aim to mitigate this risk. As part of the Department's communication and outreach campaign for the Project, the rationale for a phased approach – allowing time for sufficient consultation and generation of information – needs to be explicitly explained in an appropriate manner by the Departmental authorities to the population of La Guajira, in particular the rural Wayúu communities. A significant outreach effort is already underway and has included a strong role of the Central Government in leading outreach efforts. Public meetings have been held with mayors, municipal council members, and the public at large, and further efforts for dissemination of the Project phasing are included in a communications strategy which has been initiated as part of Project preparation by the <i>Gobernación</i>.</p>	<p>Even with the mitigation measures, the risk of complaints from the specific population segment of the Wayúu is moderate (2).</p> <p>Although the 2-phased structure reflects the different complexity levels in terms of the necessary preparatory work in the urban and the rural areas, as well as the readiness for implementation of the investments, it also signifies a delay in addressing the needs of the poorest and most vulnerable and historically neglected people in La Guajira, where social exclusion and marginalization levels are most acute.</p>
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Table 4 (cont.): Critical risks and possible controversial aspects

<p>4. Overall fiduciary risk, including problems of governance, corruption and transparency and low public trust in Government Institutions. La Guajira has been historically tainted with governance concerns and cases of patronage and political clientelism. There is clearly a need to improve the effectiveness, efficiency, transparency and accountability of public sector performance. These governance issues in the past have resulted in public expenditure being inefficient and ultimately not addressing the needs of the population. Project-specific fiduciary risks relate to:</p> <p><u>Financial Management.</u> The management of Project funds, including both loan resources and counterpart funds, is a concern. The Project utilizes a model used in other Bank operations – an independent, formal non-bank financial intermediary which acts as a trust or <i>fiduciaria</i> and which is supervised as part of the financial and banking sector regulatory framework in Colombia. The <i>fiduciaria</i> will handle all Project resources, including counterpart funds.</p> <p><u>Procurement.</u> A key corruption risk imbedded in the Project is the risk of inflated bid prices which might reflect the cost of doing business in La Guajira including the payment of kickbacks, protection, and patronage. Actions are included in the Project Anticorruption strategy to mitigate the risks of contract splitting, auditing of NCB contracts, and collusion.</p> <p>Above and beyond direct fiduciary risks, the well documented lack of confidence from the public in the local authorities could mean that institutional reforms introduced by the Project that require a change in public awareness and behavior (cost recovery mechanism, introduction of metering, playing more of a controlling role to increase public accountability, etc.) fail to resonate with civil society and provoke opposition from the public. Finally, as an operation to be executed in a decentralized fashion at the departmental level, there could be substantial fiduciary risks, particularly as regards Phase II which would include an important role for the departmental government.</p> <p>Unmitigated Risk Rating: 4</p>	<p>The Departmental Government has stated its commitment toward more transparent and accountable public institutions, and this Project supports many improvements in all of these areas. The proposed fiduciary and flow-of-funds arrangements will signify a solid gain in transparency and protection against misuse of funds, improving the accountability for resource allocation within the Department and make the public sector more responsive to citizens. The Project includes a detailed and explicit Transparency and Accountability Strategy (see Annex 11). However, the fight against corruption will depend fundamentally on sustained political will to translate technical changes into real improvements in administrative practice, together with outreach efforts to build public trust. The Project arrangements for the flow of funds – including the use of a <i>fiduciaria</i> for both loan and non-loan resources – as well as the use of competitive procurement following bank guidelines and the increased publicity and transparency incorporated in Project implementation arrangements will strengthen the efficiency and transparency of public expenditure management and improve service delivery outcomes - which will in turn help to improve and restore citizen trust in local government, at least insofar as the water and sanitation sector goes.</p> <p>The operation includes several specific actions identified during preparation to enhance both transparency and control, which are outlined in detail in Annex 11, Project Transparency and Accountability Strategy.</p> <p>In addition, a significant effort has been made during preparation to build a governance and oversight mechanism to mitigate fiduciary and governance risk. Similar to the recently approved Colombia Water and Sanitation Sector Support Project and to the Water Sector Reform Project under implementation, the proposed operation uses an outside fiduciary agent to handle all Project funds and payments.</p>	<p>Based on the robust mitigation measures proposed under the Project, the rating for this risk is considered moderate (2).</p>
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Table 4 (cont.): Critical risks and possible controversial aspects

<p>5. Low institutional capacity. The Department presents serious weaknesses at the sector institutional level in terms of management capacity and technical skills. The lack of sufficient oversight capacity in the public sector could result in weak planning, implementation and monitoring of the Project and negatively affect the quality of the investments and implementation arrangements. This would mean the infrastructure created under the Project would be inadequately designed, operated and maintained, and the increased access and improvement in service provision would not be achieved, undermining the Project social benefits. Insufficient capacity at the Departmental Government level could also constitute a risk of capture from the private operators and non-compliance with the agreed upon targets and contractual obligations given insufficient enforcement.</p>	<p>The Government of the Department has committed to contracting a skilled group of consultants responsible for program management, and the Bank has undertaken capacity assessments of the Program Implementation Unit for procurement and financial management issues. The Bank's and the National Government (through DNP and MAVDT) involvement will bring additional controls and strengthen the supervision and existing oversight capacity. Nonetheless, the quality of implementation will depend greatly on the capacity of the PIU and other institutions involved to implement the Project as envisaged and implementation delays are to be expected whilst this capacity is created.</p>	<p>With the foreseen arrangements in place, this risk is considered low (1).</p>
<p>Unmitigated Risk Rating: 2</p>	<p>On the technical side, the participation of the specialized private operators with proven track-record and experience, provided the sufficient oversight and M&E capacity is in place, will ensure the quality of investments and appropriate operation and maintenance.</p>	

Table 4 (cont.): Critical risks and possible controversial aspects

<p>6. Insufficient public support affecting the operation and maintenance and the sustainability of Project investments. The success of the model for service delivery supported by the Project relies also on changes from the public by adjusting behavior and possibly changing its consumption patterns.</p> <p>The success of the Project relies very much on the public accepting and understanding that a good quality service will require accepting metering in most cases and commitment to paying the tariff – which under the Colombian model is a subsidized one for the poorest. Efforts by the operators to collect revenue could face opposition and resistance to pay from the customers, and ultimately, non-payment and inability to collect the fees from the public. Experience shows that the lack of willingness to pay is especially acute in places where users have traditionally not been billed – as in some neighborhoods in Maicao and Riohacha - and charged for the services, where regardless of service improvement, people continue with the culture of no payment, which is reflected in the decrease in the collection revenue that went from 24% in the year 2004 to 17% in the year 2005. Past experience in Maicao and Riohacha show a negative first reaction of the public to metering with a high incidence of metering breakage, and stealing.</p> <p>Also, private sector participation in service provision is, by its nature, politically charged and inherently risky given the multiple stakeholders involved.</p> <p>Unmitigated Risk Rating: 3</p>	<p>The Departmental Government and operators are committed to working with the public perception and service users to manage the risk of public-acceptance. The unit within the Department dedicated to Project implementation and supervision will ensure the operators comply with this commitment. A public awareness, information and dissemination program involving work with community members and users to inform the population about service cost and use, service quality, and downstream activities relating to the service implemented by the operators has already started during Project preparation and will be strengthened in the first year of the Project. Further, there is a proven track record and wide experience in the use of Specialized Operators in Colombia – and on the Caribbean coast, in particular – and the Bank experience with linking service improvements with the Specialized Operator approach has been impressive.</p> <p>In addition to the campaign for promoting the sensible use of water and its consecutive payment, a solid supervision and reinforcement mechanism has been designed, and is key to breaking this cycle. Collection performance and efforts from the operators will be closely monitored by the Departmental dedicated unit.</p> <p>The risk of public acceptance of private sector participation is significantly mitigated by (a) a successful experience with PSP in the water sector in Colombia; (b) a number of well functioning ongoing transactions within the Department; and (c) the flexible nature of the “modernization” model which allows for fine-tuning of the transaction during its implementation.</p>	<p>This risk is considered moderate (2), though inherent to any investment in the water sector in poor urban areas in a similar developing environment.</p>
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Table 4 (cont.): Critical risks and possible controversial aspects

<p>7. Failure to comply with the agreed upon measures to manage the negative social impacts that the Project may bring to the Wayúu and other vulnerable groups; failure to follow guidelines for consultation and participation and overall safeguards approach.</p> <p>Unmitigated Risk Rating: 2</p>	<p>The Project includes tools and guidelines for conducting consultation with the indigenous Wayúu in all investments that affect them, as outlined in the Indigenous Peoples Planning Framework that will be part of the Legal Agreement for the Project. The use of a framework to screen the projects from a social and environmental perspective has been agreed with the Government as part of the “rules of the game” for the financing of investments under the loan.</p> <p>The use of the prior screening mechanism would ensure that non-compliance with any of Bank social safeguard policies –i.e. indigenous people, involuntary resettlement, etc. is spotted, as well as any other adverse social impact brought about by the sub-project. At this stage, the Borrower and the Bank would be able to confirm that existing policy frameworks, mitigation plans, organizational capacity and other actions needed to comply with the safeguard policies and mitigate and/or manage adverse impacts have been addressed satisfactorily.</p>	<p>This risk is low (1), though closely dependant on the correct application of the mitigation measures contemplated for risk No. 5.</p>
<p>8. Inefficient use of public resources. The Bank is not directly participating in the renegotiation of the targets and timelines of the ongoing concessions but will play an important role of providing advice and guidance. These revised arrangements will be in place following the approval of the Loan. Unequal technical capacity and knowledge about the services on the sides of the local government and the operator and the lack of a competitive process could result in a subsidy higher than necessary being allocated. There is also a small risk that, since the Project allows for a limited amount of money to be used to advance investment in municipalities prior to the finalization of concession negotiation or renegotiation, monies could be used – and investment completed – but concession negotiations are not finalized. This latter risk is seen as manageable because (a) no funds would be spent without a credible process for incorporating an operator under way, and (b) the amount of funds used would be strictly limited.</p> <p>Unmitigated Risk Rating: 3</p>	<p>The concession performance targets, coverage, and levels of service, will be determined according to pro-forma financial models that link the investment with tariff levels and achievable targets. The Program Implementation unit will supervise the implementation of the investment program as well as monitor the achievement of these targets. Annually, this unit will review the investments proposed by the Specialized Operators and approve the investments proposed or make recommendations for changes. The Bank will also monitor the implementation of the works and performance through supervision missions, prior reviews, No Objections, etc. The Bank will review and give its No Objection to the results of the resetting of the targets.</p>	<p>This risk is considered moderate (2).</p>

Table 4 (cont.): Critical risks and possible controversial aspects

<p>9. Water scarcity issues. La Guajira – especially Upper and Middle Guajira – is a desertic region, where water resources are scarce and subject to a high level of variation throughout the year. The main source of water in the Department is the River Ranchería that runs from the Sierra Nevada to the Caribbean Sea, but its capacity might prove limited as demand expands. In the Upper Guajira, the limited ground water available is highly saline and often unfit for consumption without significant treatment. Water resources are further jeopardized by the exploitation of coal, pollution of watercourses due to illegal dumping, with little regard for the protection of water resources through watershed management. In this context, any intervention in the water and sanitation sector calls for a thorough assessment of the quality and availability of existing ground and surface water resources to allow long-term and sustainable – both environmentally and financially - water resource management and investment planning.</p> <p>Unmitigated Risk Rating: 1</p>	<p>The Project includes a comprehensive assessment study of available ground and surface water resources throughout the Department, including the legal Wayúu territory in coordination with the relevant authorities. This information would enlighten any decision for investment in new water sources and the most adequate solution for rural – and long-term urban - areas.</p> <p>The problem of water scarcity could in the meantime be largely resolved by controlling the existing levels of water losses prevailing in the urban centers. 12 out of 13 centers are currently producing on average 3 times more water than would be needed to supply existing demand on a 24/7 service. Investments in the rehabilitation and upgrade of the systems contemplated under the Project will contribute to controlling non revenue water and leakage, increasing water availability and allowing improvement of continuity and pressure.</p>	<p>This risk is considered low (1) since the Project will generate water savings from day one and also generate an important piece of information for adequate sector strategic planning. This information can be incorporated in the planned investments under the Project.</p>
<p>10. The risk that new mayors or Departmental-level public officials will backtrack on commitments made during preparation and implementation by former administrations.</p> <p>Unmitigated Risk Rating: 2</p>	<p>The risk of political change is inevitable and will be mitigated during implementation by regular dissemination and outreach activities, including with newly elected officials, and through the presence of the Bank and Central Government.</p>	<p>This risk is considered low (1).</p>

Table 4 (cont.): Critical risks and possible controversial aspects		
<p>11. Risks related to repayment of loan due to uncertain fiscal resources, since the royalty (<i>regalias</i>) revenues are driven by uncertain (a) hydrocarbon production and (b) commodity prices, and there is the risk that, during the payback period of the loan, departmental revenues fall.</p> <p>Unmitigated Risk Rating: 2</p>	<p>This risk is mitigated by the following:</p> <ul style="list-style-type: none"> a) The analysis undertaken during Project preparation shows that the Department has a significant fiscal capacity and the expense loan repayment represents is not significantly higher than the amounts the Department is already allocating to the sector; b) Coal price forecasts driving the Department's royalty related income indicate the Department's finances will allow comfortably for loan repayment; c) The proposed approach can include support to mitigate any risks associated with the royalties income, including edging of any commodity price risks through a SWAP or other mechanism; d) There is no significant foreign exchange risk as hydrocarbon revenues and loan repayments will both be denominated in US dollars; e) Ministry of Finance has signed off the fiscal projections prepared by the Department to comply with the national tight fiscal framework. 	<p>This risk is considered low (1).</p>

Overall Project Risk Rating. Based on the detailed risks and mitigation measures identified, the overall Project risk is considered Substantial (3).

6. Loan conditions and covenants

The Loan Agreement includes two non-standard conditions of Effectiveness, both of which are expected to take place prior to the signing of the Loan Agreement:

1. The Fiduciary contract has been executed and delivered;
2. The Operational Manual has been adopted by the *Gobernación* (government of the Department of La Guajira).

D. APPRAISAL SUMMARY

1. Economic and financial analyses

Economic Analysis

78. Cost benefit, sensitivity, and risk analyses were undertaken to determine the economic viability of investment sub-projects and to review the impact on economic results when key variables change. The cost benefit analysis was done for each of the sub-projects potentially included in the Project. Cost benefit analysis was undertaken on the expected investment programs for all 15 municipalities, though only 10 municipalities have confirmed their interest in participating in the Project. The results show that all subprojects are economically viable with returns variable from 16% in Villanueva to 32% in Urumita and Uribia. The overall Project has net benefits of US\$ 54 million, and an economic rate of return of 19%. Detailed results of the economic analysis can be found in Annex 9.

Financial Analysis

79. A detailed financial analysis demonstrates that the proposed Project is financially viable when the proposed subsidies from the Departmental Government of La Guajira are included and some efficiency gains are reached. The financial analysis undertaken assessed the financial structure, efficiency, and viability of the three local utilities (including the multi-municipal concession in the South of La Guajira) currently under private sector management, using financial ratios and measurements against relevant industry comparators. The analysis also reviewed the appropriateness of tariffs in relation to long-run marginal costs and O&M costs and the effect of pricing and cost recovery policies generally on the financial viability of the entity. Detailed results of the financial analysis can be found in Annex 9.

2. Technical

80. The great majority of Project funds will be used to finance civil works and equipment for improvement of the water supply and sanitation services in the participating municipalities. These investments are expected to comprise generally routine upgrades and rehabilitation to existing systems. The scope of works will be determined by the Specialized Operators, as part of the POIs (Works and Investment Plans) which they will submit based on detailed technical designs prepared by local utilities. The works and goods will be procured by the operators, in accordance with Bank guidelines. The supervision of works will be carried out by the Operators or consultants hired by them for that purpose, while the adherence to the Bank procurement guidelines will be the responsibility of the Program Implementation Unit.

3. Fiduciary

81. Financial Management Capacity. The *gobernación* has established a PIU staffed by consultants, hired as a firm, until October 2007. The staffing of the PIU will evolve either via extending the firm's contract or via competitive selection of new consultants. The PIU, as currently staffed, is adequately staffed by professionals in charge of FM functions, among others. The *fiduciaria* has not been appointed but is being selected through a competitive process selected from top performing *fiduciarias* supervised by the country's Financial Superintendence.

82. Audit Arrangements. Given that the Project is not aimed at improving the performance or financial management capacity of the Department or the Departmental Government, and given that the Department only acts in this Project as a conduit of investment subsidies to the municipalities, the financial management capacity of the Department has no bearing on the Project, since Project funds at the

central level are handled by a fiduciary agency, which will open a specific account for the Project. This fiduciary account will receive royalty funds assigned to the Department and it will also receive the Loan funds, municipal resources, and funds all other contributing sources. After Project closing, the fiduciary account will continue to receive the carbon royalty funds and will repay the Bank Loan. Consequently, there is no need to implement an external auditing of the financial statements of the Department, as a whole. Project accounting records will be maintained on a cash basis, complemented with controls and registries for contract management (including advances) and fixed assets. Accounting records and information systems will be provided by the *Fiduciaria*. Knowing that the pool of top performing *Fiduciarías* from which the selection will be made usually have qualified staff and sophisticated accounting systems, no issues are expected for FM purposes.

83. The Project-specific FM and internal control procedures will be documented in the Operational Manual, a draft of which was reviewed by the Bank prior to Negotiations.

4. Social

84. The Project is expected to have a strong positive impact on the environmental and social conditions faced by the poor in the participating municipalities and pilot rural areas of the Department and is expected to set the stage for a broader and more comprehensive rural intervention which will address the social and economic needs of the large number of rural poor in La Guajira. The Project is expected to bring direct environmental health benefits to over 300,000 people (over half of the population of the Department) including reduction in morbidity and mortality related to water quality through the proper treatment of drinking water and management of wastewater. Immediate health improvements (which would especially benefit children who are often particularly susceptible to water-borne diseases) would include reductions in gastrointestinal illnesses, cholera, typhoid, and hepatitis B, among others.

85. The operation includes a broad campaign for public consultation both during preparation and, of critical importance, during implementation, so that results – and failures – are publicly known. Several studies and consultation activities have been undertaken during Project preparation to identify key social, institutional and governance issues affecting the context for the proposed Project. Given the complex social, environmental, economic and political characteristics of La Guajira, these studies and consultations were undertaken both to reduce social risks and to enhance the positive likely social impacts for different stakeholder groups, particularly poor and indigenous women and men. The main study was a social analysis focused on assessing social opportunities and risks for the first phase of the proposed APL, which would invest in the main urban centres within the Department. The complete independent expert assessment of key social issues can be found in Project files and is based on a process of interviews with different institutions, local leaders, indigenous peoples' representatives, beneficiaries/customers in the urban areas and other stakeholders.

86. The main issues raised by this study are the following: (i) the concern over the potential impact of the urban water solution on rural areas (sources of water, disposal of waste water) and indigenous people; (ii) opposition to the Project from the Wayúu, Indigenous People Organisations and other NGOS in the context of given historic demands on issues related to social exclusion and discrimination (which could be further complicated by the 2-phased approach giving priority to investment in the urban areas over the rural); (iii) Governance, transparency and political economy issues and low public trust in departmental government institutions; (iv) low institutional capacity in the public sector; (v) the cultural dimension and ownership of water among the Wayúu, the original dwellers of La Guajira; and (vi) insufficient public acceptance of reforms to be introduced by the Project and social opposition to aspects which are key to its success such as metering, private sector participation in service provision or lack of willingness to pay cost-recovery tariffs.

87. As stated above, approximately 42% of the populations of La Guajira are indigenous Wayúu people. The Wayúu live mostly in the rural areas of the Department with legally recognized territorial rights to approximately 10,675 km² (the departmental total is about 21,000 km²) in the Middle and Upper Guajira in the jurisdiction of the municipalities of Riohacha, Maicao, Uribia and Manaure. The first phase of the APL focuses investments in the main urban centers within the Department and includes a component to finance a series of pilot interventions in the rural indigenous areas as demonstration sub-projects - to be replicated under APL II. An Indigenous Peoples Planning Framework (IPPF) has been developed during Project preparation, to be applied during implementation once the pilot sub-projects have been identified. After identifying pilot candidates, Indigenous Peoples Plans would be developed in collaboration with the communities, and would include the key requirements of O.P 4.10. This instrument would also apply in cases of any potential negative impacts to Indigenous Peoples living in peri-urban areas who might be affected by urban investments (Component 1), particularly in regard to wastewater treatment.

88. There is not expected to be any physical displacement as a result of Project works, but minor negative impacts may occur as a result of land acquisition. To ensure compliance with O.P 4.12 on Involuntary Resettlement, a Resettlement Policy Framework (RPF) has been prepared. This RPF would require advance screening of subprojects. For any subprojects that would require the involuntary taking of land that results in (a) relocation or loss of shelter, (b) loss of assets or access to assets, or (c) the loss of income sources or means of livelihood (whether or not the affected persons must move to another location), subproject resettlement plans would be prepared and submitted to the Bank for approval.

89. The work described above has enabled the identification of the major risks relating to the Project's social dimensions and incorporate risk-management measures into Project design¹⁰. Annex 17 describes in detail the work undertaken during Project preparation in the social area as well as the main issues identified.

5. Environment

90. The Project's safeguard-related procedures included in the Environmental Assessment (EA) aim at ensuring that sub-projects comply with national environmental laws and regulations as well as Bank environmental and social safeguard policies, that any cumulative impacts are addressed, that environmental and social impacts are managed through application of appropriate environmental technical specifications, that appropriate oversight mechanisms are established, and that adequate procedures are in place for the protection of cultural property.

91. The Bank appraised the environmental management capacity of the implementing agency and found in the EA that the *Gobernación* is addressing institutional capacity weaknesses by establishing a Program Implementation Unit (PIU) with oversight by an Executive Committee that includes representatives of municipalities, Departments and the central government. The EA includes activities to strengthen the environmental management capabilities of the PIU and the municipalities to (a) screen sub-projects, (b) obtain the necessary expertise to carry out EA, (c) review all findings and results of EA for individual sub-projects, (d) ensure implementation of mitigation measures included in the Environmental Management Plan (EMP), and (e) monitor environmental conditions during Project implementation.

92. The PIU established by the *Gobernación* ensures that adequate capacity exists for the following environment-related functions: (i) undertaking the environmental and social screening of sub-projects; (ii) review and clearance of the submitted analyses, plans, monitoring plans, and indicators, and making

¹⁰ The conceptual framework for social analysis presented in the Social Analysis Sourcebook, 2004 for the incorporation of social dimensions into Bank-supported Projects has been used in this approach.

recommendations for additional analyses and measures, if required; (iii) elaborating terms of reference for any additional environmental and social analyses, and providing technical assistance in their elaboration; (iv) developing good practice management guidelines; (v) providing support to municipalities for any environmental and social issues; (vi) ensuring the consistent adequate application of environmental procedures for sub-projects; (vii) contracting experts to provide additional environmental and social training and support, when needed; (viii) identifying potential cumulative impacts and determining necessary mitigatory actions; (ix) monitoring the quality of reporting from the municipalities, and developing measures to solve any environmental and social problems that arise; (x) monitoring environmental compliance of sub-projects; (xi) establishing links with other institutions to strengthen environmental capacity within each municipality; (xii) coordinating with the *Instituto Nacional de Antropología*, when sub-projects might have an impact on cultural heritage; and (xiii) working with the local environmental authority, CORPOGUAJIRA, to facilitate environmental licensing procedures, where necessary.

93. The PIU will include environmental specialists on its staff who will be responsible for preparation, contracting and management of required environmental studies and services in addition to the following activities to ensure adequate environmental management of the Project: (i) organization of bidding processes for the selection of Specialized Operators or negotiation of new contracts with existing operators when needed; (ii) reviewing of investment plans of operators and setting of goals; (iii) monitoring of compliance with environmental legislation; (iv) environmental auditing of the construction and operation of sub-projects; (v) environmental technical assistance for operators; (vi) environmental monitoring of the quality and increase in service coverage and compliance with other objectives contained in the operators' contracts; and (vii) execution of campaigns for improvements in water efficiency, culture of payment and technical assistance to operators.

94. The Project seeks to promote sustainable management of water resources in La Guajira, by controlling overexploitation and contamination. Given that the problems associated with water scarcity and poor water quality exist at the watershed-level, the Project will finance analytical work to provide a basis for the design and implementation of a water resources management policy in La Guajira. The analytical work will be complemented by a Strategic Water Resources Management Assessment, to be conducted during Project implementation, which would develop a strategy for the lower (Baja) Guajira and the upper (Alta) Guajira regions during Project implementation.

6. Safeguard policies

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP/GP 4.01)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural Habitats (OP/BP 4.04)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pest Management (OP 4.09)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cultural Property (OPN 11.03, being revised as OP 4.11)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Involuntary Resettlement (OP/BP 4.12)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indigenous Peoples (OP 4.10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forests (OP/BP 4.36)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Safety of Dams (OP/BP 4.37)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects in Disputed Areas (OP/BP/GP 7.60)*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects on International Waterways (OP/BP/GP 7.50)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

* By supporting the proposed Project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas

95. The Project will deal with each Safeguard Policy triggered as described below:

96. Environmental Assessment. Annex 10 summarizes the Project Environmental Assessment completed by consultants contracted by the *Gobernación*. 16 candidate sub-projects have been identified. Based on the EA typology and the manual of environmental technical specifications, an environmental screening will be carried out for each sub-project. The EA includes measures to prevent, minimize or mitigate potential positive and adverse environmental effects associated with of each sub-project.

97. The EA conducted an analysis of Project alternatives to improve provision of water and basic sanitation service. The EA also includes a typology of sub-projects. Each type of sub-project has distinct impacts but given the small, disbursed investments of the Project and the potential to mitigate most negative impacts by applying environmental standards of Project design and operation, none presents a significant impact. Thus, the Project does not finance any sub-project in Category A. The Project's key environmental impacts relate to the possible impacts of the civil works to be constructed by the local utilities, including for wastewater discharges to water bodies used by indigenous communities and different stakeholders. All sub-projects will be subjected to EA screening; definition of required environmental work; application of environmental technical specifications and construction standards; implementation of required environmental work; and environmental monitoring.

98. Environmental Management Plan (EMP). The Project's environmental management plan incorporates baseline measures to minimize and control environmental impacts of the sub-projects and to establish basic compliance requirements for Specialized Operators. The EMP also establishes protocols for environmental audits in order to verify whether the sub-projects comply with minimum environmental standards (or the proposed management criteria), as well as with current environmental legislation. The EMP includes environmental technical specifications for the long-term maintenance of the investments.

99. Technical and environmental specifications for water supply and sanitation projects. The EA also includes a manual for technical and environmental specifications for the construction, operation and maintenance of works and sub-projects of water supply and sanitation in La Guajira. This manual also aids operators responsible for the service provision to efficiently implement environmental protection and management measures oriented towards: i) improving environmental quality by providing better access to potable water, ensuring proper collection and disposal of wastewater, and reducing disposal of waste materials; ii) improving the quality of life through the adoption of environmental management practices to confront environmental degradation and natural resource depletion, and iii) reducing vulnerability to environmental risks.

100. Environmental contractual clauses for bidding documents and contracts with Specialized Operators. The execution of sub-projects implies contractual relationships between municipalities and service providers. The environmental obligations will be transferred to the contracted parties who will be responsible for designing and building all the civil works and thus, will be responsible for controlling environmental impacts. The EMP also includes guidelines containing environmental covenants that will be included in all sub-project contracts and concessions.

101. O.P.N 4.04 – Natural Habitats. According to the EA, if any natural habitats (as defined by OP 4.04) could potentially be significantly degraded or converted either directly or indirectly as a result of the Project, the screening criteria will assess for this possibility, and accompanying environmental management guidelines ensure that sub-projects would be in compliance with OP 4.04.

102. O.P.N 4.11 – Cultural Property. In accordance with Bank's policies, the Project has adapted and will apply existing Good Practice Guidelines for screening of sub-project locations and chance find procedures.

103. O.P. 7.50 – Projects on International Waters. The Project will contribute to development of water supply and sanitation projects some of which will be located on the tributaries of basins, which are international waterways flowing through the Republic of Venezuela. Due to use of water from bi-national watersheds, the Government of Colombia has notified the Government of Venezuela of the proposed Project in compliance with OP 7.50. A copy of the letter sent is included in the Project files of the Bank. The investments are not expected to adversely change the quality or quantity of water flows to Venezuela or adversely affect Venezuela's possible water use. No dam will be built under the proposed Project. Additional information about all specific sub-projects proposed for financing during the implementation of the Project, will be posted on the Bank's website.

104. Public consultation of EA. The EA was presented at public forums in Riohacha, Uribia (Upper Guajira) and San Juan (Lower Guajira) on May 5, 8, and 9, 2006, respectively. The forums included public officials from the Regional Corporation of La Guajira and municipal, department and national level governments; municipal councils; and representatives from the private sector, the *Contraloria*, civil society, NGOs, community organization leaders, and the press (print, radio, and TV). The Government of La Guajira distributed the EA documentation to the participants and provided copies to the administrative offices of the Department, the Uribia mayor's office, and the Municipality of San Juan, for reference and feedback.

105. During all public consultations, the main concerns of stakeholders were focused (i) on the interest in getting potable water supply on a continuous basis in the municipalities and (ii) on ensuring total transparency in the management of public funds, particularly those of revenues associated with "direct royalties." The public consultations of the draft EA highlighted the need for governmental enforcement of water and environmental regulations, particularly those associated with water rights regulations.

106. O.P. 4.10 - Indigenous Peoples. Any intervention in rural indigenous areas under APL 1 and APL 2 will require a special approach to ensure the development process fully respects the dignity, human rights, economies and cultures of Indigenous Peoples, along the lines of the Bank's 4.10 Indigenous People safeguard policy. In compliance with this policy, an Indigenous Peoples Planning Framework (IPPF) has been developed during Project preparation, to be applied during the implementation once the pilot sub-projects have been identified and selected. Free, prior and informed consultations were facilitated by SAI in the 16 indigenous communities that are potential candidates for the rural pilots (Component 2). Each of these consultations revealed the profound need for potable water and verified broad community support for the Project. Detailed records of these consultations as well as a list of attendees and their signatures can be found in the Project files. Before the implementation of each individual sub-project, a social assessment and IPPF will be prepared and submitted to the Bank for review before the respective sub-project is considered eligible for Bank financing. This instrument would also apply in cases of any potential negative impacts to Indigenous Peoples living in peri-urban areas who might be affected by urban investments (Component 1), particularly in regard to wastewater treatment.

107. The IPPF sets out the Project's approach to ensure that the indigenous people benefited or affected by the Project will receive culturally appropriate social and economic benefits. The IPPF contains:

- i) Guidelines for elaborating a detailed assessment of rural and indigenous needs, including a comprehensive Social Assessment and consultation processes to ensure cultural appropriateness of the interventions, and other relevant aspects of the program, as well as requirements for the finalization and publication of a departmental rural water supply strategy that takes into consideration the result of the indigenous people needs assessment and consultation process;

- ii) Terms of Reference for conducting a social assessment of the pilot sub-projects, including an appropriate consultation and participation process and the incorporation of elements in Project design for the Development of the Indigenous Peoples;
- iii) Main characteristics of the Wayúu People and recommendations to be included in Project Design.

108. The Project's IPPF can be found in the Project files and was publicly disclosed before Appraisal in compliance with O.P 4.10.

109. O.P 4.12 - Involuntary Resettlement. Although no major resettlement is expected under the Project, in some cases the construction of the works might require purchasing land and/or the involuntary displacement of the resident population and the economic and social activities located therein. A Resettlement Policy Framework (RPF) has been developed, applicable in said context, aimed at supporting the restoration of the socio-economic conditions of the population that will have to relocate or whose properties might be affected by the Project. This Framework is consistent with the World Bank's Involuntary Resettlement policy O.P 4.12. Taking into account that the process of land purchase is an essential part of the population displacement and resettlement procedures, details on this process have been included in the RPF.

7. Policy Exceptions and Readiness

110. The operation complies with all applicable Bank policies and is ready to begin implementation immediately upon Effectiveness, which is expected upon, or shortly after, signing.

Annex 1: Country and Sector or Program Background

COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service Management Project

Country and Sector Context

Sector Background

1. **Overview.** Colombia, with a population of about 45 million inhabitants, has made impressive progress in expansion of water and sanitation services in urban areas in recent years. According to United Nations guidelines – which include private wells in the case of water supply and septic tanks and latrines in the case of sanitation – access to safe water and sanitation services has become virtually universal, especially in large urban areas of Colombia during the last decade. Using stricter definitions of household connections to water and sewerage, the current level of access in urban areas would be 97% for water and 90% for sewerage, which still compares impressively with higher income countries like Argentina (70%) and the rest of the region. Rural coverage (broadly defined) is much lower (53% for water and 57% for sanitation), with these levels shrinking to 52% and 15% respectively when the definition is restricted to household water and sewerage connections. Although there has been substantial progress in the expansion of urban and rural coverage in recent years, there remain significant discrepancies in the coverage ratios in large urban areas and in peri-urban and rural areas, where efforts must be more than doubled in sanitation expansion and increased by 25% in water to achieve universal access by 2020. However, the increase in coverage rates masks shortcomings in the quality of service. Although the overall performance indicators for the 59 largest utilities show reasonable levels of efficiency and service levels, in smaller municipalities water rationing and intermittent supplies are common in most water supply systems. Only slightly less than 50 percent of all drinking water outside the major urban centers is being properly treated and, as a result, the drinking water quality in many systems is substandard (one of the main reasons for this is that almost a third of the smaller municipalities, although equipped with water treatment plants, do not make the necessary purchases of chlorine for water disinfection due to their weak technical capacity as well as cash flow problems that restrict the availability of resources to purchase basic production inputs). Sufficient pressure in the water supply systems is often lacking, adding to the risk of bacterial contamination. Sewage collection systems do not have sufficient hydraulic capacity to handle wastewater flows, especially in poor neighborhoods, resulting in overflow problems and direct health and environmental impacts. The share of wastewater receiving any kind of treatment is about 10%, which is low for a middle income country such as Colombia. Regarding continuity of service, two thirds of households report access to a 24-hour water service in large urban areas. In smaller municipalities, lack of systematized information makes it difficult to assess general service quality, but widespread anecdotal evidence – as well as the sample utilities analyzed in detail under the preparation of this Project – show that the continuity of the services in the served areas under evaluation is far from being 24 hours.

2. **Context of Decentralization.** Colombia has had a highly decentralized framework for the provision of water and sanitation services since the 1986 Decentralization Law, which transferred the responsibility for operating and managing the water and sewerage systems to the municipalities, and decentralization has been a major force in shaping the water and sanitation sector's structure. Colombia now comprises 1,091 municipalities and over 1,300 registered water and sanitation service providers in urban areas, including municipal departments, utilities (public, private and mixed) and other authorized organizations and some 12,000 community based organizations providing service in rural areas. The market is geographically concentrated with the 40 largest municipal utilities serving 70% of the urban population, equivalent to 55% of the national population. The extreme atomization of the remaining service providers has led to substantial loss of scale economies, and contributes to the weak management and precarious financial viability of the smaller operators.

3. **Key Institutions.** The Ministry of Environment, Housing and Regional Development (MAVDT) is now responsible for the water and sanitation sector policy at the national level. Within the MAVDT, the *Vice-Ministry of Water* oversees the sector, formulates sector policies, and plans sector development. The *Departamento Nacional de Planeación* (DNP) is responsible for designing and monitoring the policies, plans, programs, studies, and investment projects for the water and environment sectors, including supporting decentralization and institutional reform efforts. The Water Regulatory Commission (CRA) promotes competition among service providers, controls monopolies, defines tariff-setting methodologies based on standard formulas and on investment plans submitted by the operating companies, and sets quality-of-service and technical standards to be followed by utilities. The Superintendency of Public Enterprises (SSPD) is responsible for monitoring and supervising the adequacy and efficiency of utility operations, establishing uniform accounting systems, supervising the administration of subsidies, and monitoring the general administration of public service companies. Environmental regulation is handled by Autonomous Regional Corporations (CARs).

4. **Legal Framework.** The national Constitution of 1991 confirmed the right of municipalities to provide water and sanitation services, including the power to grant concessions or other forms of private sector participation. The Constitution provided the legal framework and established the grounds to introduce more aggressive reforms in the water sector by clearly separating service provision and policy making, and by allowing PSP in the infrastructure sector. Law 142, enacted in 1994, is one of the most complete examples of utilities legislation in the region and the water and sanitation sector, along with the provision of other utilities, is regulated through this framework law, although to date there has been no additional sector-specific law developed. Law 142 emphasizes efficiency of service provision through the introduction of competition and the promotion of PSP in the sector. Among the key elements of the law are the creation of the SSPD and the definition of the functions of the Regulatory Commissions, the *Comisión Reguladora del Agua* in the case of the Water and Sanitation Sector. Another key element of the Law is the promotion of cost recovery tariffs for the utilities, and it establishes limits on the extent of cross-subsidization between customers. The law also establishes immediate liberalization of all utility services, including those traditionally regarded as natural monopolies, and explicitly exonerates service providers from any requirement to hold a concession from the conceding authority. As stated above, the water and sanitation sector does not have any sector legislation beyond Law 142/94, and this legal vacuum has made it even more difficult to establish general standards and performance criteria that could apply to the large number of decentralized utilities across the country.

5. **Sector Policy Framework.** The Government's policy for the sector is very much focused on improving the institutional and financial capacity and sustainability of service providers, an important tenet of which has been the promotion of PSP. There has been significant experimentation with private participation, with more than half of the 26 largest utilities, equivalent to 13% of the urban market, operating with some degree of private sector involvement through various types of models, mainly mixed capital, concession and management contracts. The performance of all these utilities has improved. Colombia has pioneered the mixed enterprise model for private sector participation in the water sector, whereby the municipal government remains a significant (usually controlling) share of the utility; the private sector is represented on the Board and takes a leading role in the operation of the company and investments are co-financed between the public and private sector to varying degrees. In spite of a favorable Government policy, private sector participation in the water sector is still not widespread and is far lower than has been expected, in part as a result of security problems which deter foreign operators and investors, and in part as a result of the inherent complexities of carrying out PSP processes, which require strong political commitment at the local level, Government technical assistance, and financial support in order to be successful.

6. **Sector Issues.** The main outstanding sector issues in the country are the following:

- **Poor Utility Performance.** The main reason for poor utility performance, particularly in small municipalities (less than 50,000 inhabitants), is inadequate management capacity, often a result of political intervention in management, political nomination of managers, and their frequent replacement for reasons not related to performance. Poor utility performance is reflected in the low quality of service provided and in inadequate commercial systems, low billing and collection, and inadequate maintenance. Coverage rates do not reflect the real quality of service; a better performance indicator is the effective water service coverage, which takes into account continuity of service and water quality, in addition to physical coverage. The effective water service coverage in Colombia, which reflects coverage of 24 hours per day with water quality that complies with drinking water standards, is shown in Table 1. These data indicate that (i) utility performance in the country, on average, is less than satisfactory; (ii) utility performance in medium and small municipalities is deficient; and (iii) there are great disparities between major cities and the rest of the country, with larger utilities presenting reasonable operational indicators of efficiency and smaller utilities presenting very weak operational and financial indicators).

Table 1: Effective Water Coverage in Colombia as Indicator of Level of Service (1997)			
Major Cities	Medium Cities	Small Municipalities	National Average
82%	46%	27%	< 50%

Source: ACODAL, Estado del Sector de Agua y Saneamiento en Colombia, 1998

- **Large Regional and Urban - Rural Disparities in Service Coverage.** Whereas access to water and sanitation in urban centers has become practically universal, in the rural areas there is still a long way to go, with 53.1% coverage for water and 57.9% for sanitation, and 52% and 15.2% respectively when the definition is restricted to household water and sewerage connections (though networked service is not always appropriate in rural areas). The Atlantic Coast (Caribbean region), Orinoquia and Amazonia regions present the lowest coverage rates for both services.
- **High Investment Needs.** Total investment required for investments in the services during the period 2004-2008 was estimated at US\$ 2.1 billion or approximately US\$ 420 million per year. These figures include investment in wastewater treatment and maintenance of existing assets, as well as investments needed to reach the Millennium Development Goals for the sector. Consequently, there is a need for maximizing the efficiency and impact of Government's support to the sector, in addition to increasing cash generation from utilities and attracting private sector investment.
- **Limited Subsidies to the Poor.** Cross subsidies are part of the design of the tariff structure in Colombia and have proven to be an effective mechanism for income redistribution in large urban areas. However, as the number of municipalities in which the entire population classified in the lower income strata has grown, the cross subsidy mechanism has become less effective. Given the unfavorable structure of demand and the fact that the sector is still far from reaching the legally established tariff parameters, the cross-subsidy scheme presents a large deficit of US\$161.million per year, equivalent to 20% of sector turnover. Therefore, the current cross-subsidy scheme has proven an insufficient tool to expand service delivery in many peri-urban areas or provide sufficient financing in municipalities with predominantly poor populations, where the underlying imbalance between contributors and beneficiaries is greater. A specific mechanism, Solidarity Funds, was proposed to allow a better service to low-income groups while helping utilities achieve financial sustainability by providing an additional direct subsidy to the service provider. However, as these funds are supposed to be financed with municipal resources, fiscal constraints

at the local level have inhibited their rollout. As of 2002, only 54% of municipalities had established such funds, and of those only 5% were allocating resources to these funds. The current cross-subsidy mechanism also ails from poor effectiveness (90% of the resources leak to households above the poverty line) due to deficiencies in the stratification system. The Government has commissioned a detailed study of the current cross-subsidy mechanism and stratification system to define the reforms needed to solve the structural problems mentioned above.

- Low Wastewater Treatment Coverage. Most of the wastewater generated in the country does not undergo any kind of treatment and only half of installed wastewater treatment capacity is operational. This is a result of deficient maintenance that leaves plants inoperative, and also to the fact that some plants are located in municipalities that still lack the necessary sewerage infrastructure for wastewater collection. The remainder is discharged without any treatment, contaminating a significant part of the natural water resources. Contributions from the Central Government for water quality control are normally assigned as a result of difficult negotiations between regional and central authorities and there is no clear mechanism for financing municipal wastewater treatment plants.
- Weaknesses in the Regulatory System. The regulatory and supervising agencies (CRA and SSPD) have regulation and monitoring oversight responsibility for over 1,300 service providers in the country. This situation makes the regulatory activity costly and inefficient. Large utilities serving over 6 million inhabitants like Bogotá are regulated in the same way as those serving 2,000 inhabitants. The result has largely been one of paralysis, with the large fringe of smaller utilities lacking the capacity or inclination to engage in regulatory processes, and the central agencies themselves lacking the manpower to interact meaningfully with such a large number of service providers. In addition, many of the smaller utilities are in such a precarious condition, that it is questionable whether regulation is even an appropriate intervention, as opposed to technical assistance or outright liquidation. Current regulation is based on tariff setting formulas that were designed to provide incentives for efficient services, but have not been fully successful in promoting efficiency. Tariff levels are, in most cases, still too low due to political considerations that override sector incentives, and although significant progress has been made in setting tariffs to cost-recovery levels, the process is far from complete and in practice, the application of the tariff increases was uneven. The largest utilities have made substantial progress, now charging reference tariffs within about 10% of the cost recovery benchmark, and making substantial progress towards the rebalancing of the cross-subsidy system. However, in the smaller utilities, there has been greater reluctance to embrace the goal of financial sustainability. This is due to politicization of the Boards of the municipal utilities, which are often presided by the local mayor, and which have the ultimate power to set tariffs even if obliged to do so within the regulatory framework laid down by the CRA. Furthermore, a number of new legal measures taken in 2003 to increase the subsidy limit for Stratum 1 households from 50% to 70% of the tariff, and subsequently outlaw any future real increases in the tariffs of Strata 1 and 2 households, have effectively undermined the process of rebalancing of the cross-subsidy framework, making the goal of cost recovery ever more distant. The existing regulatory and legal frameworks do not provide sufficient comfort to potential private investors and constitute an obstacle to the efforts of consolidating the reform initiated in 1994.
- Limited Coordination Among Central Government Agencies. There are many institutions in the sector, some with overlapping functions in certain areas. Under such circumstances, coordination efforts are a must. Utilities frequently complain about the large amount of information requested by the government, and about the costs associated with generating it. The establishment of the

Ventanilla Única Program, a key component of the Government's strategy for the sector, aims at addressing this issue.

- Lack of a national rural water policy and no explicit rural investment programs. In contrast to other infrastructure sectors, there is no explicit central policy scheme to promote rural access to water and sanitation, beyond the fiscal transfers and the general legal framework. Although Government Programs such as the *Microempresas Comunitarias* have proven useful tools to improve management and operation of rural utilities, the poor performance of rural utilities in raising coverage suggests that such a well defined targeted rural water policy might be necessary to address the significant efforts needed to keep up the pace in increasing coverage expansion rates and to reduce the discrepancies in coverage ratios between urban and rural areas.

6. Despite the need for improvements, the water and sanitation sector in Colombia is relatively advanced as compared to many of its Latin American neighbors. In particular, the sector is characterized by:

- An Adequate Sector Policy Framework. The Government of Colombia has been a pioneer in adopting good sector policies in the water sector. The decentralization policy was enacted long ago, and promotion of PSP is a key sector policy. These are advanced policies, which provide opportunities for improvements in sector performance. The Government has also steadily provided financing to the sector and continues to do so. There is regular monitoring of utility performance, water quality, and investment impact by the key sector institutions including the CRA and SSPD.
- Satisfactory Service in the Large Cities. The water and sewerage services in five of Colombia's largest cities (Bogotá, Medellín, Cartagena, Barranquilla, Bucaramanga), which serve a population of about 12 million inhabitants, are good, though efficiency improvements are still needed. The exception is Cali, which is currently undergoing a crisis in the water and sewerage services.
- Successful Performance of Utilities with PSP. Private sector participation is not uncommon among the largest utilities, and takes place within the framework of a distinctive mixed enterprise model. There has been significant experimentation with private participation, with more than half of the 26 largest utilities, equivalent to 13% of the urban market, operating with some degree of private sector involvement. Colombia has pioneered the mixed enterprise model for private sector participation in the water sector, whereby: the municipal government retains a significant (usually controlling) share of the utility; the private sector is represented on the Board and takes a leading role in operation of the company; and investments are co-financed between the public and private sector to varying degrees. The experience with the privatized utilities (Cartagena, Barranquilla, Santa Marta, Tunja, Monteria, Palmira, Girardot, Riohacha, among others) is encouraging. The performance of all of them has greatly improved, customer satisfaction is high and they provide good examples for resolving the water sector problems. Consequently, PSP is emerging as a methodology that tends to be adopted by mayors who are interested in improving the water sector performance.

Government Strategy

7. In recent years, the Government has implemented a modernization and reform program for the water and sanitation sector to address the issues described above. Current strategy and policy for the sector is outlined in the 2002-2006 National Development Plan (NDP), and aims to consolidate the

reform undertaken and to create the financial, institutional and monitoring conditions to ensure investment in sector needs and the modernization of utilities to improve efficiency levels and performance. Government's strategy is based in the following actions:

- (i) incorporating the private sector into the management and operation of public water utilities where technically, financially and institutionally feasible;
- (ii) increasing financial support to publicly run utilities to address the high structural sector investment needs through a national investment program based on direct subsidies from the Government for capital expenditure, to extend assets to the poor in both urban and rural areas, with the goal of achieving sector self-sustainability in the medium term;
- (iii) implementing, as a prior condition for accessing financial support, institutional strengthening and technical assistance programs to promote utility modernization and efficient management;
- (iv) rationalizing the institutional framework at the national level to improve coordination in the sector and fight sector fragmentation, ensuring access to finance from utilities; and
- (v) strengthening the regulatory framework for the sector and enforcing mechanisms to ensure the application of tariff regulation and the use of Law 715 transfers.

8. Towards Commercially Viable Utilities. The Government has articulated a clear policy position towards the independent management of local utilities using commercial practices, known as "Specialized Operators" in Colombia, be they public or private. This approach has proven to be successful and is strongly supported by the Bank; there has been the creation of a genuine market of utility operators within Colombia (which differs from the experience elsewhere in the region where almost all water concessionaires were international firms). The Government's approach – codified in CONPES documents numbers 2775, 2912, 3253, 3381, 3383, and 3385 – encourages the creation of Specialized Operators and builds on experience through out the country in which the Bank has been a steady partner. The successful experiments in Barranquilla and Cartagena in the early 1990s prompted widespread experimentation, and there are currently around 100 private operators serving 15% of the urban population. Private participation is also occurring through outsourcing activities in the three main cities (Bogotá, Medellín and Cali), where public enterprises remain in charge of providing the services. In Bogotá for instance, the public utility has used BOT contracts for the construction of water and sewage treatment plants, and recently awarded management contracts for the operation and billing of services in five zones of the distribution network. As part of the policy to encourage this type of reform, the Government designed a Program for Utility Modernization (*Programa de Modernización Empresarial - PME*), aimed at facilitating the incorporation of the private sector in the management and operation of the water and sanitation services in the utilities of participating territorial entities and at providing financial support to these utilities, while ensuring provision of services to the poor. A World Bank study¹¹ shows that since the operator took over in Cartagena, 95% of new connections were in households classified as Strata 1 and 2 (i.e. the poorest). In Barranquilla, the corresponding figure was 86%; in Tunja 79%; and in another private utility, Santa Marta, over 50%. The implementation of this Program is being supported by the Bank through the ongoing loan Water Sector Reform Assistance Project (7077-CO) which supports key PSP transactions, targeting improvement of efficiency and expansion of water and sanitation services in medium-size cities or regional associations of municipalities (with populations of up to about 300,000 inhabitants) and small municipalities (with populations of up to about 12,000 inhabitants).

9. Increasing Financial Support through a National Investment Program. Achieving the financial self-sustainability of the sector is a core objective of Government's strategy. The National Development Plan 2002-2006 focuses on promoting the concept that financing of sector utilities will be mainly based

¹¹ Colombia: Expanding Services to Low-Income Areas comparing private and public water utilities (Sotomayor, 2001)

on income generated by collection of bills as well as by incorporating private investors, where feasible (approximately half of the expected sub-projects would incorporate the introduction of private management). Municipalities can subsidize the tariff of low-income customers or subsidize part of the investments using the revenue transfers of Law 715 and existing public funds allocated to the sector. As part of the efforts to increase the available financing sources for the sector, Law 788 of 2002 additionally established a tax rebate scheme as an incentive to investment by regional utilities. Only when the aforementioned resources are proved insufficient, given affordability constraints, to cover investment needs and effectively provide services, can the Government make available to individual municipal utilities, under strict eligibility conditions, additional resources from the national budget to finance specific investments and help solve structural problems, at all instances working with the utility towards the goal of eventually achieving financial self-sustainability.

10. Consistent with the objectives outlined above, Law 812 of 2003, which adopted the NDP, established the 2002-2006 medium-term national financial commitments to the sector. The Government will provide capital investment grant resources to be utilized based on the outcomes of the recently conducted participatory public consultation process known as the *Audiencias Públicas* (August 2003). As part of this process, departmental and regional investment needs were examined and evaluated by a technical committee based on poverty- and technically-weighted criteria, resulting in fund allocation at a departmental level. Approximately US\$ 135 million has been allocated for investment in the water and sanitation sector under the umbrella of the *Audiencias Públicas*. Implementation arrangements for accessing these funds, particularly the direct oversight by the MAVDT and the development of a harmonized and publicly disseminated set of procedures, along with the use of financial intermediaries for fiduciary management, has been designed to mitigate the risk of political capture of the public consultation process to ensure the efficient use of grant transfers. The Government has designed a mechanism to centralize all publicly funded¹² investments in the sector, including the allocations deriving from the *Audiencias Públicas*, through a Program called *Ventanilla Única* (to be financed under Loan 7281-CO), managed by the Directorate for Water and Sanitation (*Dirección General de Agua Potable y Saneamiento Básico*) within the MAVDT.

11. Implementing Institutional Strengthening and Technical Assistance Programs. The Government is currently implementing a policy effort to improve the institutional development and financial and technical performance of publicly-run utilities in small- and medium-size localities (both urban and rural) where PSP is not likely to be adopted in the short-term. The Government has designed two different Programs, *Fortalecimiento Institucional* and *Microempresa Comunitaria* (“Institutional Strengthening” and “Community-Based Microenterprises,” respectively) which aim to bring utilities to reasonable levels of management, operational efficiency and financial viability and pave the way for private sector participation by improving the productivity of utilities and strengthening of management and administrative systems.

12. Rationalizing the Institutional Framework and Improving Sector Coordination. Coordination at the national level has been fostered through the strengthening of the MAVDT, with the Vice-Ministry of Water as the key coordinating institution for sector development and the creation of an umbrella Program for managing national financial support to the sector, the *Ventanilla Única*. The *Ventanilla Única* establishes a uniform approach to analyzing and financing sector investments by various involved agencies, to coordinate sector investments in a more rational way across the different institutions involved in sector investment, regulation, and management.

13. Small-scale providers. Small-scale service providers (both public and private) play an important role in Colombia with more than 1,700 local entities providing service in small municipalities and over

¹² Refers to publicly provided grant resources and not credit funds provided through, for example, FINETER.

4,600 in rural areas. The Government's strategy for these specific types of providers is based in three different programs:

- ***Microempresas Comunitarias*** (Community-Based Micro-Enterprises). Targeted at municipalities and rural areas of less than 5,000 inhabitants, this program aims to establish community based micro-enterprises (local or regional) that can effectively respond to consumer demands, recuperate investment costs and operate with reasonable levels of efficiency. The main objectives of the program are: (i) to achieve community ownership; (ii) to reduce political interference in service provision; (iii) to take advantage of economies of scale for procurement of goods and services, amongst others; and (iv) to support a social handling of public services and the development of microenterprises.
- ***Fortalecimiento Institucional***. Targeted at urban and rural areas of less than 12,000 inhabitants with poor management capacity, this program aims to implement a business-like approach in those service providers through a combined strategy of providing technical assistance and training. During Project implementation, the MAVDT will provide technical assistance to small public operators to assist them in obtaining the knowledge and experience required for managing a water utility. The MAVDT has prepared a package of technical assistance for the small entrepreneurs which provides information, training and software for financial and commercial (billing and collection) management, operational performance in aspects such as unaccounted for water reduction, metering, service coverage, labor efficiency etc.
- ***Operator-Constructor model***. Targeted at small municipalities with populations of less than 12,000 inhabitants, which decide to incorporate a private operator through a simplified process. The differentiation with PSP processes in larger municipalities is made specifically to reflect the conditions in small municipalities (from the private sector's standpoint, the business is different in the two size ranges of municipalities, and the required type of operator is different in both) and is possibly the most significant innovation of the Colombian approach to PSP. Through competitive bidding, small- and medium-size construction companies, possibly in association with small consulting firms, will compete for the construction and/or rehabilitation of the water supply and sewerage systems in a small municipality and the winning bidder commits to operate the systems for a period of 10-15 years from the date of signing the contract. The winning bidder will receive training in management of water utilities as well as written material and management software.

Water and Sanitation Sector in the Department of La Guajira

14. The Department of La Guajira occupies a large peninsula in the northeast of Colombia facing the Atlantic and the Caribbean Sea and sharing over 2,000 km of border with Venezuela in the East¹³. The Department is one of the richest regions in the country in terms of natural resources with the world's largest open cut coal mine - El Cerrejón - generating approximately US\$ 50 million per year in royalties from the exploitation of coal and coal related products¹⁴. However, this important revenue source has historically not been matched by the capacity of the Department's leaders to allow it to materialize into adequate infrastructure and an acceptable level of public services for the Department's population of approximately 520,000 people. La Guajira is one of the least developed and most impoverished of the 32 departments of Colombia. The majority of the population lives in extreme poverty conditions, with almost all of the Department's inhabitants classified in strata 1, 2 and 3 according to the national stratification

¹³ See Annex 10, Figure 1

¹⁴ Other natural resources are the gas deposits of Catalina and Chuchupa, the potential for the generation of eolic energy - which has been explored with mixed results to date - and the Manaure salt deposits that are amongst the largest in the South American region.

system. The main 15 urban centers make up about 70% of the population and most of the rural area is largely inhabited by the native Wayúu, an indigenous people that have lived in La Guajira for more than 3,000 years and whose cultural and political traditions are deeply rooted. Most live in conditions of extreme hardship and are deprived of basic services. The Department faces many structural problems deriving from a historic lack of long-term vision and strategic planning and unstable economic growth – in spite of the large volume of royalties received –, a low level of human capital development, lack of coordination among the different government levels and poor institutional development at the municipal heads, problems of corruption and little accountability of political elite in the past. Education, health, transport, water and sanitation and other basic services are largely underdeveloped both in the urban and rural areas and investment in infrastructure has been inadequately planned, insufficient and poorly maintained.

15. Of the many challenges for fostering development faced by the Department, the water and sanitation sector is the most pressing. Sector performance is very deficient, due to the combination of poor management of the services from the municipalities, low-impact and poorly maintained investments and scarcity and little reliability of water sources. Service coverage is very low by Colombia's standard - 68.2% in water supply and sewerage coverage of 35.1% in comparison with a national average of 88.3% and 74% - in urban centers and access to a reliable source of supply is inexistent in the rural areas. Under the theme a Water Revolution for La Guajira, the Department's Government has designated the water and sanitation sector as a policy priority and a key development area in the short and medium term. The Department's strategy - developed in coordination with the Central Government sector institutions¹⁵ - includes a reform program under the guiding principles of the overarching national strategy for the sector and an ambitious investment plan that aims to address the following outstanding challenges:

Chronic poor management, under-performing utilities and weak institutional framework. A historic poor management of the services by the municipalities account for the deficient quality of the services rendered in the urban centers of the Department. Only nine municipalities have created a dedicated service provider separate from the municipality and the performance of these operators is severely challenged by a severe historic backlog of under-investment and poor maintenance, a generalized culture of non-payment for the services and large operating deficiencies. In urban areas, losses account for over 60% of production, and although water scarcity is an important issue in La Guajira, supply availability constraints could be addressed - at least in the short and medium term – through much needed operational and managerial improvements. The need for improved management has to an extent been addressed by the incorporation of private management in three areas of the Department – the municipalities of Maicao, Riohacha and a regional utility covering seven of the southern municipalities in the Lower Guajira, which to date have had a significant impact in terms of improving the performance of the three utilities. In all three instances, considerable progress has been made against the performance indicators in both non-revenue water reduction and collection efficiency, but it will be very difficult for the utilities to be able to continue consolidating these improvements without ensuring access to investment resources. An adequate institutional and regulatory framework around these concession contracts is also needed to ensure these improvements are consolidated. The Government's strategy envisages the deepening of this approach and the extension of the current private sector participation arrangements to the remaining urban areas. A significant percentage of the investments contemplated under the proposed Project will be devoted to improving the commercial and operating efficiency of service providers. The investment program and institutional reforms to be supported by the proposed loan will target improvements in the performance of utilities with the objective of increasing efficiency and ensuring the long-term sustainability of the water and sanitation services.

¹⁵ MAVDT and DNP

Low coverage rates, deficient water quality and poor service levels in serviced areas. Access to water supply and sanitation services in the serviced urban areas remains well below the national standard: 68.2% and 35.1% respectively versus a national average of 88.3% and 74%. Existing treatment capacity within the urban areas is exhausted and the safety of the water delivered to the population is unreliable. The municipalities of Manaure and Uribia have desalinating plants but they are currently not working. Without exception, all cities have deficient levels of service, with low water pressure and intermittent supply. The average service availability was estimated at 4 hours of service per day, leakage is estimated at a 60% of total water production in 2004, and metering coverage is practically inexistent. Sanitation services are underdeveloped. The network infrastructure is insufficient and less than 10% of the wastewater receives any kind of treatment. In the three areas where the private sector is handling the services, the levels of service have improved since the private operators took over but overall, the benefits of these contracts in terms of service quality will likely emerge in future years as the investment program is implemented and the efficiency-enhancing and improved management rendered by the operators take root.

Un-serviced and extremely poor rural areas. To date, the Government has legally recognized Wayúu territorial rights to approximately 10,675 km² (the Department's total is 21,000 km²) in the Middle and Upper Guajira in the jurisdiction of the municipalities of Riohacha, Maicao, Uribia and Manaure. These areas – where the population is almost exclusively Wayúu – are the areas most severely affected by deficiencies in water supply. The main and almost only source of supply in these areas is rainwater catchments- called *aljibes* or *jagueyes* – that are used indiscriminately for animal consumption, laundry and human consumption – with no prior disinfection¹⁶. In the health post in Kasushi – belonging to the hospital of the Municipality of Uribia – the most frequent cases of disease amongst the Wayúu are related to diarrhea, feverish states and skin eruptions. Anecdotal evidence shared with the identification mission that took place in May 2005 shows that the incidence of water-borne diseases in child mortality is high. The Wayúu community claims to have been affected and displaced by mining activities in La Guajira, in particular questioning the procedures used in the expropriations of Wayúu land needed to build the railway and other infrastructure required by the mining industry during the 90's. Whatever legal base there is for these allegations, the situation of inequality and uneven wealth distribution in the Department of La Guajira is ostensible, especially when comparing the revenues generated by the royalties with the extreme poverty situation in which the Wayúu indigenous people are living. Under the proposed Project, an adequate scheme for delivering services to the Wayúus that takes into consideration equality concerns and bears the appropriate level of subsidy will be developed, in line with the Central Government's strategy to ensure an adequate level of subsidies to Colombia's poor.

Limited availability of water resources. La Guajira – especially the Upper and Middle Guajira – is a desertic region, where water resources are scarce and subject to a high intensity of variation throughout the year. The main course of water in the Department is the River Ranchería that runs from the Sierra Nevada to the Caribbean Sea. The superficial waters bear a high mineral content, in particular in the southern region, which limits its use for agricultural purposes. Water resources are further jeopardized by the exploitation of coal, pollution of watercourses due to illegal dumping and low degree of proper institutional attention being given to the protection of the basins. The average annual pluviometry in the Department is registered at 300 mm. According to INEAM¹⁷, La Guajira is the only department in the country that presents a high deficit of water

¹⁶ In the area of Uribia, drinking water is also distributed from the Port of Interco and distributed weekly by one of the members of the *Ranchería* in a *carrotanque* provided by one of the two Wayúu associations.

¹⁷ *Estudio Nacional del Agua* (National Study of Water)

resources as measured by the “dryness index”, which refers to the volume of water needed to maintain existing vegetation. In this context, operation of the water and sanitation services calls for strategic water resource management and long-term investment planning in order to establish the necessary capacity to meet long term demand as the Department develops.

Governance Challenges. The issue of governance – broadly defined – remains a key impediment to the improvement in the quality of water services in La Guajira, and the proposed operation aims to put in place mechanisms to improve sector management and governance, including improved transparency and accountability. While in the water sector specifically, the broader governance challenges in La Guajira include, among other issues, longstanding socio-economic and institutional difficulties. These complexities include a diverse population with a history of social exclusion, inequality and poverty, as well as a history of political instability and underground economy, corruption, unanswered claims from civil society and NGOs, lack of credibility of politicians and political institutions, and, despite a major effort towards demobilization in recent months and years, the continued presence of illegal armed groups. The Project includes a detailed and explicit Transparency and Accountability Strategy (see Annex 11).

The operational design also includes explicit measures to manage the risk of corruption during Project implementation. The low performance of La Guajira’s water sector is without question related to historic governance problems. Inefficient public utilities, subject to capture by elites and politicians, failed to expand coverage or service quality. The culture of non-payment and evasion is widespread and has rarely been enforced. Public perceptions – as expressed in stakeholder consultation meetings held during preparation – point to the impression of endemic fraud and corruption among elites as a principle cause for the failure of the public sector institutions to deliver. While the Project does not aim to improve the overall governance or management of the public sector in La Guajira and is limited to improving water and sanitation sector governance, it nonetheless represents a model for addressing governance issues in a direct way to resolve a concrete development challenge. The approach supported under the Project aims to address the governance challenge in several concrete ways, all in the attempt to improve the efficiency in the use of public resources spent in providing water and sanitation in La Guajira:

- Services will be delivered by responsible Specialized Operators, all of whom are expected to be private sector enterprises with significant experience in the sector under operational agreements which will be duly supervised by the sector regulatory entities and the Bank. The results from this approach in other parts of Colombia (particularly the Caribbean coast) are impressive. The operators’ contracts establish clear and transparent service quality goals which will be closely monitored during implementation. Typically, in poorly managed public utilities, decision making about even the most basic operational decisions is subject to political interference. While the use of independent Specialized Operators is in no way a panacea, the Colombian experience points to significant reductions in political meddling in utility operations.
- To ensure the efficient use of public resources, the Bank will be directly involved in reviewing the annual work programs of the operators which establish the amount of Department-financed works that each municipality will receive.
- All goods, works, and services to be contracted under the concession agreements will utilize Bank procurement guidelines, including prior review of contracts above the ceilings established in the Loan Agreement.

- There are significant capacity constraints within the *Gobernación*. The approach of creating a temporary implementation unit, staffed by capable and competitively selected consultants, will help address difficulties in management, sector knowledge, and overall technical capacity to support implementation.
- The operation includes a broad campaign for public consultation both during preparation and, of critical importance, during implementation, so that results – and failures – are publicly known. Experience in other such arrangements in Colombia (and confirmed in the Bank's review of the performance of the existing concessions for La Guajira) is that in many cases, local mayors do not live up to their commitments to provide local counterpart financing. Making public both the results on the ground and the operational performance of both parties to the concession agreement will be important to allow for public scrutiny of sector developments.
- The use of transparent and ring fenced fiduciary arrangements. All Project funds will pass through the Fiduciaria. The implementation arrangements for the Project rely on the use of an independent *fiduciaria* – trust agent – a commercially available entity which will be selected on a competitive basis to handle payments to contractors and goods and service providers. For Component 1, procurement will be handled by the operators, and for Component 2 by the PIU, and funds will be transferred directly from the *fiduciaria* to contractors and service providers.

High investment needs, limited funding and need to rationalize investment in the sector. The Department's 4-year investment plan outlines a comprehensive investment program required to achieve universal access to safe and reliable water for the population of La Guajira. The total needs in the next 4 years have been estimated to amount to US\$ 143 million. The existing utilities have little room to generate investment resources given the wide spread culture of non-payment in the Department and the lack of working capital hinders the enhancement of operational efficiency. The Department's strategy is to take advantage of its present and future revenues from royalties to ensure the much needed access to investment resources to service providers as part of a public expenditure program for the sector in adequate infrastructure for service delivery. The royalties coming from both the coal (US\$) and gas sectors in 2005 has been estimated in the region at an average of US\$ 50 million per year, of which significantly less than 20% would be allocated to the water and sanitation sector to repay debt financing for the water program. Given the past experience with the use of royalties for financing low quality and inappropriate investment in the region, the national and regional authorities see this financing structure as a significant boon to enhancing the quality of public expenditure.

The Central and Regional Government's Strategy

16. The strategy of the Government of Colombia for the water and sanitation sector supported by ongoing Bank programs combines the channeling of subsidized financing from the national budget with generating improvements in performance - through both enrolling the utilities in institutional development programs and incorporating the private sector in the management of the services. As indicated by the sector authorities in the context of the ongoing dialogue with the Bank, the MAVDT is developing an approach to improve sector performance and operate within the context of decentralized public administration existing in the country to strengthen the institutional and regulatory framework at the departmental level. One objective of this strategy is to concentrate service provision in multi-municipal providers that will support the potential for economies of scale and address the financial sustainability problems created by an excessive atomization of the services at a local level. The Central Government strategy aims to ramp up investment in both urban and rural areas, improve performance of

water companies, increase subsidies to the poor, make investment sustainable and efficient and reduce sector fragmentation, rationalize resource transfers, and improve the overarching sector institutions.

17. The Department's strategy is fully consistent with the central government strategy. The Department has put together a plan for the sector which fully acknowledges the need for improved management and investment in infrastructure under the guiding principles of the overall national strategy. The engagement of Specialized Operators in the management of the services in urban areas under negative concession arrangements replicating the current government's program for the sector in the Department of Pacific supported by the ongoing Bank loan 7077-CO is the centerpiece of the government of La Guajira's sector strategy to improve service levels, increase efficiency and achieve financial sustainability. The elements of loan 7077-CO will be replicated in the involvement of the private sector, which will form a uniform basis for sector development. The proposed operation aims to transform the Department of La Guajira into a pilot experience as regards basic water and sanitation services into the national model for service delivery.

18. Adjusting Operational Targets. The key operational underpinning of the proposed Project is an agreement by all involved parties (the Department, local municipality, and operators) to (a) advance the operational targets established under the existing concession agreements from a 25-30 year time horizon to a 4-5 year time horizon and (b) provide Department-financed capital subsidies to allow these targets to be met. The operation will not include any broader renegotiation or restructuring of the existing concession arrangements. These new targets and investment amounts will be (a) reviewed in detail, and adjusted as necessary, by the Program Implementation Unit using financial models already established under Loan 7077-CO and which have been approved by the Bank; and (b) subject to the review and No Objection of the Bank. For those municipalities which are entering new concessions or joining existing arrangements (this is the case primarily for Dibulla, La Jagua del Pilar), and, in the case that they choose to participate in the Project during implementation, for Manaure and Uribia), the PIU, with support from the Government of Colombia's Ministry of Environment, would support the structuring and bidding process for a least-subsidy negative concession using the established methodology from existing Bank loans and practice in Colombia.

19. The key elements of the proposed operation are: (i) supporting the ongoing arrangements with Specialized Operators in nine municipalities and encouraging the remaining municipalities to enter into concession agreements with Specialized Operators; (ii) the provision of investment resources to private operators, under the negative-concession approach, for management-driven investment decision making; and (c) undertaking analytical work and, over time, making the necessary investments to address the needs of the underserved or unserved rural poor in a way that is both culturally appropriate and sustainable.

Annex 2: Major Related Projects Financed by the Bank and/or other Agencies
COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service Management Project

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed Projects only) ¹⁸	
		Implementation Progress (IP)	Development Objective (DO)
Bank-financed			
Water Supply & Sanitation	2470-CO : Cúcuta Water Supply & Sewerage Project (completed in 1995)	S	U
Water Supply & Sanitation	2637-CO : Barranquilla Water Supply Project (cancelled in 1991)	HU	HU
Water Supply & Sanitation	2512-CO : Fourth Bogotá Water Supply Project (completed in 1993)	S	S
Water Supply & Sanitation	2961-CO : Water Supply and Sewerage Sector Project (completed in 1996)	S	S
Water Supply & Sanitation	3952-CO/3953-CO : Santa Fe I Water Supply and Sewerage Rehabilitation Project (closed)	S	S
Water Supply & Sanitation	4345-CO : Urban Infrastructure Services Development Project (closed)	S	S
Water Supply & Sanitation	3336-CO: Municipal Development Project, Component E, Water Utilities Modernization	S	S
Water Supply & Sanitation	4507-CO: Cartagena Water Supply, Sewerage and Environmental Management Project (ongoing)	S	S
Water Supply & Sanitation	7077-CO: Water Sector Reform Assistance Project (ongoing)	S	S
Water Supply & Sanitation	7281-CO: Water and Sanitation Sector Support Project (ongoing)	S	S
Urban Environment	3973-CO: Urban Environment Technical Assistance Project (ongoing)	S	S
Technical Assistance	16260-CO, Regulatory Reform Technical Assistance Project (closed)	S	S
Other development agencies			
IDB Financed, Water Supply & Sanitation	Cartagena Sewerage Project		
IDB Financed, Private Sector Development	Privatization and Concessions in Infrastructure		
IDB Financed, Technical Assistance	Technical Assistance - PSP Water and Sanitation in Bucaramanga		
IDB Financed, Technical Assistance	Technical Assistance - Support to Regulation in the Water and Sanitation Sector		

¹⁸ HS: Highly Satisfactory; S: Satisfactory; U: Unsatisfactory; HU: Highly Unsatisfactory

Annex 3: Results Framework and Monitoring

COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service Management Project

1. A monitoring and evaluation (M&E) framework has been developed for the Project to track progress in implementation, measure intermediate outcomes and evaluate Project impacts. The framework specifies key indicators, targets, instruments for data collection, methodologies for intermediate and end-project evaluation and the responsibilities of key actors. This annex summarizes key monitoring and evaluation instruments, institutional responsibilities, indicators and targets.

Methodology and Instruments

2. Technical Supervision and Quality Control. The Project includes rigorous arrangements for technical supervision and quality control of works to be financed under Components 1 and 2. First, all works will include independent construction supervision responsible for generating frequent supervision reports for PIU review. Second, the PIU will incorporate highly capable technical staff that will perform regular technical monitoring of works to assess progress and verify independent construction supervision findings. Third, the Bank will also conduct rapid sample technical audits during quarterly supervision missions. Fourth, the Technical Committee formed under the Project will periodically assess the progress and provide technical guidance for works that have been identified as particularly complex, high-risk, over-budget and those that have encountered problems in implementation.

3. Fiduciary Control and Supervision. The Project will involve close financial management and procurement monitoring including the use of standardized financial reporting instruments, quarterly Bank supervision missions and *ex-post* reviews. These instruments are summarized in greater detail in Annex 7.

4. Operational and Commercial Performance Monitoring. Specialized operators will generate monthly financial and operational reports for review and verification by the PIU. These reports will provide data on a range of key operational and commercial performance indicators including: (i) potable water and network sanitation coverage rates; (ii) continuity of service; (iii) non-revenue water; (iv) wastewater treatment coverage; (v) metering; (vi) billing coverage; and (vii) collection rates, among others. PIU staff will conduct regular visits to Specialized Operators to verify reports. In many cases, municipalities and the PIU may hire independent consultants to provide technical supervision input to confirm the reporting of operational performance.

5. Consumer Satisfaction Surveys. The Project will incorporate systematic consumer satisfaction surveys in urban areas to solicit perception-related information from consumers on the quality of water and sanitation services provided under the operation. The surveys will also aim to verify operational data provided directly by the operators on coverage levels and continuity of service, amongst other key variables. The surveys will also serve the additional purpose of assisting operators and the PIU to identify areas of where continuing service improvements are required and also to better design and target demand management and related communication campaigns.

6. Environmental Health Baseline and Impact Assessment. The Project will conduct an environmental health impact assessment during implementation and upon Project completion. Within the first year of implementation an environmental health baseline study will be conducted, and a detailed methodology will be developed for annual and end-Project environmental health evaluations. The assessment will systematically collect and analyze social and health data, and aim to provide empirical evidence of the causal relationship between Project interventions and key health outcomes including

infant mortality and morbidity, and other water-related diseases. Terms of reference for the study have been prepared and are included in the Project Operational Manual.

7. Mid-Term and Project Completion Evaluations. Comprehensive mid-term and end-Project evaluations are also planned under the operation. Both evaluations will aim to integrate findings from the wide range of sources outlined above and will also conduct an overall management assessment of the PIU. These evaluations will be learning-oriented and designed to provide critical lessons for the Government of Colombia water sector reform program, as well as for the future phase of the APL.

Institutional Arrangements and Feedback Mechanisms

8. The PIU within the Department of La Guajira will be responsible for the overall management and implementation of the Monitoring and Evaluation framework. This will include ensuring that technical and quality control instruments outlined above are adequately designed and implemented. Specialized operators will be responsible for generating financial and operational data that will be verified by the PIU. The PIU will also contract and supervise specialized firms for the implementation of key monitoring and evaluation instruments including the consumer satisfaction surveys, mid-term and Project completion evaluations and the environmental health baseline and periodic impact assessments. Capable staff will be contracted within the PIU with wide experience in monitoring and evaluation. The Bank will be closely involved in the monitoring and evaluation framework through quarterly technical and fiduciary missions.

9. Mechanisms for Feedback. The PIU will serve as a primary filtering entity for process-related results and lessons that emerge from the different instruments. The Project also incorporates the use of two key multi-stakeholder committees to coordinate in a systematic manner the process of translating monitoring and evaluation lessons into improved Project design and implementation procedures. Specifically, these are the Technical Committee and Executive Committee. The Technical Committee will review works supervision and related technical monitoring and evaluation results and make recommendations for necessary design or implementation changes. Similarly, the Executive Committee will review the results of all key monitoring and evaluation instruments and decides on appropriate actions.

Results Framework

PDO	Outcome Indicators	Use of Outcome Information
Improve the quality of water supply and sanitation services in urban and peri-urban areas of La Guajira.	300,000 consumers in the Project area receive improved access to reliable and safe water supply and sanitation services.	
Intermediate Results One per Component	Results Indicators for Each Component	Use of Results Monitoring
Component One: Increase the coverage of continuous, safe water supply (reaching 90% of the population of the participating municipalities) and access to sewerage and wastewater treatment services (reaching 72% of the population of the participating municipalities) in the urban and peri-urban areas of La Guajira.	Component One: Percentage of urban households in participating municipalities, that have access to safe (drinking water quality meets national quality standards) water supply via a municipal network classified by economic strata Average hours of water services per day (based on 7-day week) for urban households connected to a municipal water supply network increased to 22 hours Conduct and improvement of consumer survey results for municipal water supply networks Percentage of urban households in participating municipalities connected to a municipal sewerage network Percentage of urban household sewerage that is subject to appropriate wastewater treatment services Reduction of the percentage of unaccounted for water to 40% Percentage of water connections with metering in participating municipalities to 82% Increases in revenue collection rate to 63%: proportion of total billed water value actually collected by the operators	Component One: Measure the effectiveness of the implementation of works and evaluate performance of operators. Inform the Department's medium-term strategy for implementation of water sector strategy.
Component Two: Undertake pilot rural component to	Component Two: Successful implementation of 11	Component Two: Design of rural program for

provide a replicable model for delivering sustainable water supply and sanitation services for indigenous rural communities.	<p>rural pilot water supply systems serving 19,000 households</p> <p>Design of institutional and financial arrangements for scaling up during Phase II.</p>	inclusion in APL Phase II
<p>Component Three:</p> <p>The Department of La Guajira has developed sufficient institutional capacity, including Program-related staff, to effectively implement the Project.</p>	<p>Component Three :</p> <p>The Department of La Guajira has established sufficient internal institutional capacity to implement the program</p> <p>The performance of Specialized Operators is considered satisfactory by the <i>Comisión Reguladora de Agua (CRA)</i> and <i>Superintendencia de Servicios Públicos (SSPD)</i>.</p>	<p>Component Three:</p> <p>Continuous evaluation and redesign of institutional strengthening and project management activities</p>

Arrangements for Results Monitoring

Program Summary for Results Monitoring										
Outcome Indicators		Baseline	Target Values				Data Collection and Reporting			
			2007	2008	2009	2010	2011	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
1. 300,000 consumers in the Project area receive improved access to reliable and safe water supply and sanitation services.		0	60,000	120,000	180,000	250,000	300,000	Semi-annual	operator financial statements	PIU
Results Indicators for Each Component										
Component One: Urban Water Supply and Sewerage Infrastructure ¹⁹										
Urban Water Supply										
2. % of urban households in participating municipalities having access to water supply via a municipal network.		71%	75%	78%	83%	86%	90%	Semi-annual	operator financial statements	operators, PIU
3. average hours of water services per day (based on 7-day week) for urban households connected to a municipal water supply network		10	11	12	14	17	22	Semi-annual	operator financial statements	operators, PIU
4. conduct of urban consumer satisfaction survey and improvement of results		not conducted	conducted	conducted & improved	conducted & improved	conducted & improved	conducted & improved	Annual	annual consumer survey reports	operators, PIU
Urban Sewerage										
5. % of urban households in participating municipalities connected to a municipal sewerage network.		49%	51%	59%	64%	70%	72%	Semi-annual	operator financial statements	operators, PIU
Water Utility Management										
7. % of unaccounted for water ²⁰		62%	62%	57%	52%	45%	40%	Semi-annual	operator financial statements	operators, PIU
8. revenue collection rate: proportion of total billed water value actually collected by the operators		27%	33%	46%	58%	61%	63%	Semi-annual	operator financial statements	operators, PIU
9. % of urban water connections with metering		22%	29%	44%	57%	71%	82%	Semi-annual	operator financial statements	operators, PIU
Component Two: Rural Pilot										
10. Number of rural pilot water supply systems successfully implemented		0	0	3	7	11	11	Semi-annual	project progress report	PIU
11. Design of institutional and financial arrangements for scaling up during Phase II.		No	No	No	Yes	Yes	Yes	Semi-annual	project progress report	PIU
Component Three: Program Management and Analytical Activities										
12. The Department of La Guajira has established sufficient internal institutional capacity to implement the program		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

¹⁹ Output indicators for Component 1 are averages of the municipalities, weighted by population. The target for each municipality and each operator is provided in the Project file and will be monitored by PIU.

²⁰ Unaccounted-for-water for Riohacha is calculated from the beginning of the distribution system.

Annex 4: Detailed Project Description

COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service Management Project

1. Project Components and Financing Arrangements

1. The first phase of the APL will support the Department of La Guajira's program through a sector investment loan to be implemented through the Department and existing utilities at the municipal level. The Project's three components aim to accomplish the program objectives of resolving the deficiencies in the provision of basic water supply and sanitation services in urban areas of the Department and simultaneously set the stage for a broader intervention to support the rural indigenous communities' needs for safe and reliable water and sanitation needs under the second phase of the APL. The Project will finance (a) in urban and peri-urban areas, capital investment under existing municipal arrangements with Specialized Operators for investments in water supply, sewerage and sanitation infrastructure, and wastewater treatment and discharge infrastructure; (b) a series of small rural pilot activities which aim to build a concrete model for providing financially sustainable and culturally appropriate solutions for improving access to clean water supply for indigenous rural communities; and (c) technical assistance for institutional strengthening of the Department's capacity for program management and related analytical studies to set the stage for medium-term efforts to manage water resources and service arrangements across the Department.

Table 1: Component 1 Investment By Municipality²¹			
Municipality	Water Supply	Sewerage and WWT	Total Cost (US\$ million)
1. Maicao	15,217	34,257	49,474
2. Riohacha	7,945	26,637	34,582
3. Barrancas	655	4,908	5,563
4. Distraccion	1,087	782	1,869
5. Villanueva	2,161	6,706	8,867
6. El Molino	259	1,853	2,112
7. Hato Nuevo	842	2,097	2,939
8. Fonseca	3,387	3,853	7,240
9. San Juan del Cesar	3,783	5,873	9,656
10. Urumita	322	1,206	1,528
11. Albania	322	945	1,267
12. Dibulla	561	1,206	1,767
13. La Jagua del Pilar	265	279	544
Resources unallocated for municipalities which may enter the Project during implementation	3,091	3,411	6,502
TOTAL	39,897	94,013	133,911

²¹ Investment costs for Component 1 as presented above are greater than those calculated under Project Costs as they include investment undertaken with non-Project resources, including US\$5 million of departmental resources for which works contracting was completed prior to Board presentation of the Loan.

2. Detailed Description of Project Components

The Project is structured with three components:

Urban Water Supply and Sewerage Infrastructure Component (US\$ 129.0 million, including US\$ 76 million of Bank financing)

2. Component 1 of the Project would finance civil works, equipment, and services for water supply and sanitation in the participating municipalities of the Department of La Guajira. It is expected that at least 10 municipalities of the Department will participate in the urban investment component. The loan funds allocated for each city have been determined on the basis of the financial model utilized during the preparation of the respective contract renegotiations and the availability of loan funds. The funds allocated for each city will not be transferred to the Specialized Operator or local utility but rather used to finance infrastructure works considered to be of high priority by the operator and which have been approved by the municipal authorities and by the Program Implementation Unit. Wholly consistent with existing practice, the Specialized Operator will not receive a financial contribution from the Department, but rather the right to operate additional infrastructure which is owned by the municipality. Under the Project, the Department, in effect, finances additional infrastructure for the city in the form of a capital grant. In each city, the works financed by the government using loan funds will be designed by the privately managed utilities and the executing agency of each sub-project will be the water utility of the municipality. This would ensure that the infrastructure provided by the Department will be satisfactory and will meet the requirements of the Specialized Operator. The Program Implementation Unit will oversee, in cooperation with the municipal authorities, the execution of works and will ensure that Bank procurement guidelines are followed for all works contracted under the Project, including those using resources other than those from the Loan, in line with the thresholds established under the Loan Agreement. The detailed supervision of works will be carried out by consulting firms which will be hired under the Project. Supervision and control of the PSP contract after the completion of works will be the responsibility of the contracting agency, i.e., the municipality or multi-municipal regional authority (*mancomunidad*) in collaboration with the Program Implementation Unit. Specifically, the component will finance:

- Investments in the rehabilitation and construction/expansion of primary and secondary water and sewerage networks;
- Investments in water treatment plants, pumping stations and main collectors;
- Wastewater treatment infrastructure including treatment plants and discharge infrastructure; and
- Finalized engineering designs and environmental and social assessments for investments during the Program and supervision of Project investments

Rural Pilot Component (US\$ 7.0 million, including US\$ 7.0 million of Bank financing)

3. Component 2 of the Project will finance a small pilot of activities to improve the access of rural, mostly indigenous Wayúu, communities to appropriate water supply and sanitation services in an efficient and sustainable manner. The objective of the component activities is to develop a replicable approach and model for scaling up during Phase II of the APL. The component would finance culturally appropriate *in-situ* solutions in a number of rural communities (11-16) in the Municipalities of Manaure and Uribia in the north of the Department

of La Guajira. The activities would be based on a participatory process leveraging the knowledge, preferences, culture and world view of the local communities. Annex 14 describes the proposed pilot activities in detail. The pilot approach would include activities for (a) social formulation of sub-project design using participatory methodologies; (b) physical investment; (c) the establishment of community-based institutional arrangements for sustainable management of investment; and (d) education for hygiene and water resources management, leveraging the traditions and cultures of the indigenous Wayúu. In broad terms, the activities would revolve around the establishment of a community micro-enterprise to manage the operation of the basic service, and the component activities would include activities with the regional office of SENA to support technical assistance and capacity building activities which would accompany the pilot investments.

4. Implementation of Component 2 of the Project would be primarily the responsibility of the Program Implementation Unit with support from the regional SENA office. The PIU would be responsible for organizing the social outreach activities and for handling procurement, financial management, and technical oversight of activities financed under the component. During the initial stages of implementation, the PIU, in collaboration with local authorities would review the status of preparation of the identified candidate sub-project sites and submit to the Bank, for its review and No Objection, a detailed proposal for the phasing of investments at selected sites. Based on the Bank's No Objection, final consultation and technical preparation work would begin.

Program Management and Analytical Activities (US\$ 7.0 million, including US\$ 7.0 million of Bank financing)

5. Component 3 of the Project would finance goods and services associated with the management of Project financed activities and related analytical work for the design of the follow-on phase of the APL. Specifically, the component would support the functioning of the Program Implementation Unit with technical specialists and strengthen the fiduciary and safeguards management capacity of the entity. The component would also finance activities and analytical work related to:

- Benchmarking and Project monitoring and evaluation
- A series of environmental studies and activities, principally to include (a) a "Safe Water" (drinking water quality and handwashing) program of outreach and learning; (b) activities for institutional strengthening, including environmental specialists for the PIU; (c) a Strategic Water Resources Management Assessment; (d) a study on reduction of vulnerability to urban floods; (e) periodic environmental audits; (f) environmental training activities; and (g) an environmental health impact assessment.
- The creation of a Project-specific citizen accountability mechanism under which the PIU, with the support of specialized consultants (likely through an NGO or local university) would hold regular meetings with concerned citizens.
- Preparation activities related to the scaling up of Component 2, including significant groundwater studies and the preparation of a program for broadening the participatory approach for the rural Wayúu.
- Financial audits as required.

Annex 5: Project Costs
**COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project**

Project Cost By Component and/or Activity	Total US\$million	Bank Financing
1. Urban Water Supply, Sewerage, and Wastewater Treatment Component	\$ 129.0	\$ 76.0
2. Rural Pilot Component	\$ 7.0	\$ 7.0
3. Program Management and Analytical Activities	\$ 7.0	\$ 7.0
Total Baseline Cost	\$ 143.0	\$90.0
Physical Contingencies	-	-
Price Contingencies	-	-
Total Project Costs	\$ 143.0	\$ 90.0
Front-end Fee	-	-
Total Financing Required	\$ 143.0	\$ 90.0

Component 1: Urban Water Supply, Sewerage, and Wastewater Treatment Component (US\$ million)									
	Total Cost	Counterpart (dept)		Other sources (parallel)*	Bank Financing				
		Interventoría (5%)			Total	Y1	Y2	Y3	Y4
1. Goods and Works for Infrastructure and Service Improvement	129.0	6.4	28.6	18	76	15.2	22.8	22.8	15.2
<i>Estimated Allocation by Municipality²²</i>									
1. Maicao	47.6	2.4	10.6	6.7	28.1	5.6	8.4	8.4	5.6
2. Riohacha	33.3	1.7	7.4	4.7	19.6	3.9	5.9	5.9	3.9
3. Barrancas	5.4	0.3	1.2	0.7	3.2	0.6	0.9	0.9	0.6
4. Distraccion	1.8	0.1	0.4	0.3	1.1	0.2	0.3	0.3	0.2
5. Villanueva	8.5	0.4	1.9	1.2	5.0	1.0	1.5	1.5	1.0
6. El Molino	2.0	0.1	0.5	0.3	1.2	0.2	0.4	0.4	0.2
7. Hato Nuevo	2.8	0.1	0.6	0.4	1.7	0.3	0.5	0.5	0.3
8. Fonseca	7.0	0.3	1.5	1.0	4.1	0.8	1.2	1.2	0.8
9. San Juan del Cesar	9.3	0.5	2.1	1.3	5.5	1.1	1.6	1.6	1.1
10. Urumita	1.5	0.1	0.3	0.2	0.9	0.2	0.3	0.3	0.2
11. Albania	1.2	0.1	0.3	0.2	0.7	0.1	0.2	0.2	0.1
12. Dibulla	1.7	0.1	0.4	0.2	1.0	0.2	0.3	0.3	0.2
13. La Jagua del Pilar	0.5	0.0	0.1	0.1	0.3	0.1	0.1	0.1	0.1
Unallocated (for municipalities which may enter during implementation)	6.3	0.3	1.4	0.9	3.7	0.7	1.1	1.1	0.7
Total	129.0	6.4	28.6	18	76	15.2	22.8	22.8	15.2

*Includes Ley 715 transfers, government and operator contributions, etc. An additional US\$5 million is being invested in water and sanitation activities outside the Project by the *gobernación* prior to Board presentation of the Project.

Total	7.00		7.00	1.00	2.00	2.50	1.50
Component 2: Rural Pilot Component (US\$ million)							
	Total Cost	Counter part	Bank Financing				
			Total	Y1	Y2	Y3	Y4
2. Pilot Rural Water and Sanitation Activities	7.00	-	7.00	1.00	2.00	2.50	1.50

²² Estimates are based on analytical work undertaken during preparation and appraisal; final allocation by municipality will be based on the detailed financial modeling completed by the PIU as part of the process of adjusting service targets. A detailed review of investment cost estimates was undertaken during preparation of the Loan. While per-capita costs are somewhat higher than experience in other parts of the region, they (a) are based on detailed assessment of investment needs which reflect the poor state of much of the existing infrastructure ; (b) include investments for water supply, sewerage, and wastewater treatment; (c) are wholly consistent with experience in Colombia as demonstrated through other Bank-financed projects, specifically 7077-CO and 7281-CO, and reflect the traditionally higher-than-average cost of investment in La Guajira; (d) meet Ventanilla Unica standards for unit costs which were established as part of Loan 7281-CO; and (e) have been evaluated to be robust from both an economic analysis and a financial analysis viewpoint. Nonetheless, cost savings under Component 1 are expected during implementation – in part because of the anticipated price reductions resulting from the highly competitive procurement of works envisaged under the Project and in such a case a reallocation of the savings would allow for either greater coverage and service quality achievements or a scaling up of the pilot activities.

Component 3: Program Management (US\$ million)								
		Total Cost	Counter part	Bank Financing				
				Total	Y1	Y2	Y3	Y4
3.1	Program Implementation Unit Core Staff							
	Water and Sanitation Specialist ²³	0.30	-	0.30	0.07	0.08	0.08	0.07
	Procurement Specialist	0.30	-	0.30	0.07	0.08	0.08	0.07
	Finance and Financial Management Specialist	0.30	-	0.30	0.07	0.08	0.08	0.07
	Legal Specialist ²⁴	0.30	-	0.30	0.07	0.08	0.08	0.07
	Environmental / Safeguards Specialists ²⁵	0.60	-	0.60	0.15	0.15	0.15	0.15
	Social / Indigenous Peoples Specialist	0.30	-	0.30	0.07	0.08	0.08	0.07
	Subtotal	2.10	-	2.10	0.50	0.55	0.55	0.50
3.2	Outreach, Communication, and Social Activities							
	"Safe Water" Program (drinking water quality and handwashing)	0.40	-	0.40	0.10	0.10	0.10	0.10
	Communication and Outreach Activities	0.80	-	0.80	0.20	0.20	0.20	0.20
	Social and Indigenous Peoples Outreach and Studies	1.00	-	1.00	0.25	0.25	0.25	0.25
	Subtotal	2.20	-	2.20	0.55	0.55	0.55	0.55
3.3	Environmental Activities							
	Strategic Water Resources Management Assessment	0.15	-	0.15	0.15	-	-	-
	Environmental audits ²⁶	0.13	-	0.13	0.04	0.03	0.03	0.03
	Environmental training	0.10	-	0.10	0.02	0.03	0.03	0.02
	Study on Reduction of Vulnerability to Urban Floods	0.22	-	0.22	-	0.22	-	-
	Groundwater Study	1.10	-	1.10	0.1	0.5	0.5	-
	Design of Pilot Scale-Up	0.80	-	0.80	-	-	0.60	0.20
	Environmental Health Impact Assessment	0.20	-	0.20	0.05	0.03	0.02	0.10
	Subtotal	2.70	-	2.70	0.36	0.81	1.18	0.35
Total		7.00	-	7.00	1.38	1.85	2.4	1.2

²³ With specialized financial expertise in the structuring of concession arrangements with independent operators under negative subsidy concessions.

²⁴ With expertise in the legal aspects of contracts between local governments and concessionaires.

²⁵ Includes two environmental engineers specialized in EA and construction environmental standards.

²⁶ To be carried out on an annual basis to each water supply and sewerage system.

Annex 6: Implementation Arrangements
COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project

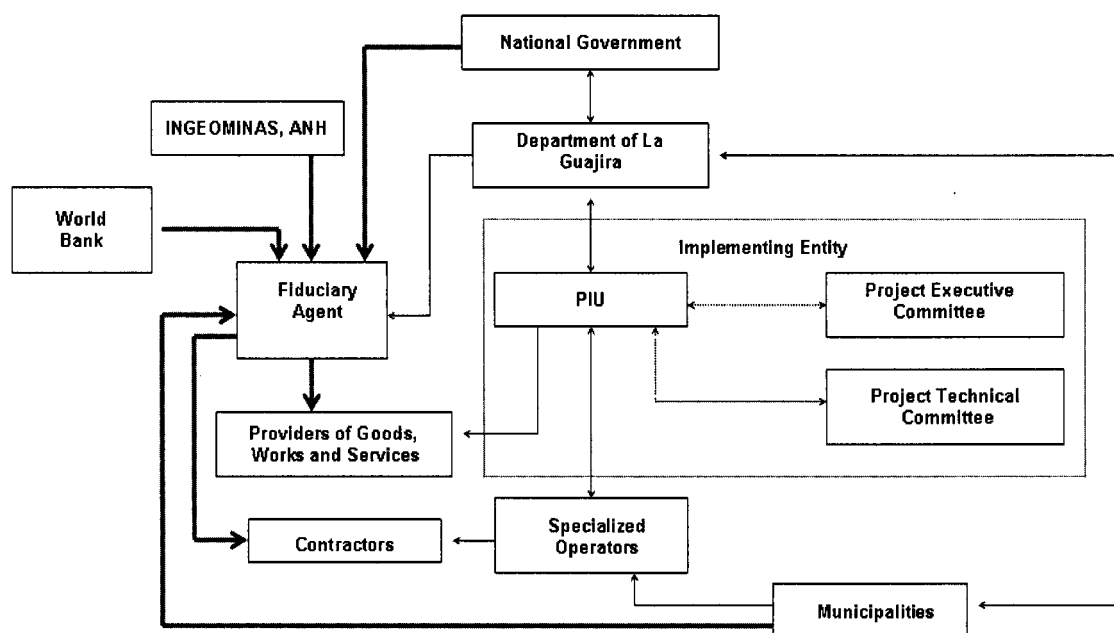
Background

1. Project implementation arrangements have been developed with the recognition that highly effective management and coordination will be critical to success given the complex institutional and political environment in which the operation is being executed. Proposed implementation arrangements are based on experience with two ongoing national operations, the Water Sector Reform Assistance Project (Loan 7077-CO) and the Water and Sanitation Sector Support Project (Loan 7281-CO), which have helped define the framework for channeling Government grant resources for capital investment to local service providers and to establish the operating procedures for the functioning of Specialized Operators in water service provision.
2. The prevailing policy and legal framework in the water and sanitation sector in Colombia defines municipalities as the primary entities responsible for service provision with important policy, financing and regulatory functions being served by MAVDT, the CRA, Superintendency of Public Enterprises (SSPD), and other key national agencies. The policy framework encourages the use of Specialized Operators to manage water and sanitation utilities either at the municipal level or across a group of municipalities and establishes a transparent and competitive framework for channeling capital investment resources to local service providers (see Annex 1). The Department (*Gobernación*) has no formal responsibility for water and sanitation and most of the Departments are not involved in this sector.
3. In the case of La Guajira, however, the Department has decided to place a strong policy emphasis on improving access to and the quality of water and sanitation services given ongoing poor sector performance. In particular, the Department intends to support through the Project the implementation of two activities: (i) improvement of the management of the municipal water utilities through the continued incorporation of Specialized Operators in the management of the services; and (ii) provision of capital investment grants to these utilities managed by Specialized Operators so as to meet ambitious sector performance goals and ensure financial sustainability. The involvement of the Department in the water sector is considered temporary with the aim of accelerating improvements in sector performance, and will continue only during Program implementation. Upon the completion of the Program, and achieving sector improvement goals, direct support of the Department in the sector will end.
4. Borrower and Executing Agencies. The Borrower for the Loan would be the Department of La Guajira and the Government of the Republic of Colombia would issue a sovereign guarantee for the sub-national debt. Implementation of the Project, as well as overall Program management, is the responsibility of the Department of La Guajira's Program Implementation Unit (PIU). The Loan agreement would be a Fixed Spread Loan (FSL) and the *Gobernación* may choose to include a commodity price swap as a risk mitigating tool for the Department's debt and fiscal management. Annex 19 includes a description of the possible use of the commodity swap derivative.
5. This annex summarizes in detail institutional arrangements for the implementation of the proposed operation.

Project Execution, Key Actors and Instruments

6. Project execution involves a complex set of local, departmental and national government actors. Key implementation agencies include: (i) a PIU established by the Department of La Guajira and staffed with qualified external consultants; (ii) an independent fiduciary agent to manage fund flows; and (iii) Specialized Operators. Project implementation will also involve oversight and coordination with several secondary stakeholders including municipalities, public utilities, the regional environmental authority, CORPOGUAJIRA, the Superintendency of Public Enterprises (SSPD), MAVDT, and DNP. Relationships between these actors are outlined in Figure 1 below. Additionally, a series of instruments have been designed to ensure effective management, oversight and coordination of Project activities. These instruments are reviewed in greater detail below.

Figure 1: Summary of Institutional Arrangements



7. Independent and Professional Project Management. Primary responsibility for Project management will be assumed by an independent and professional Program Implementation Unit (PIU). The Department of La Guajira has established a PIU which will be staffed by a team of competitively contracted professional consultants with proven expertise in: (i) water and sanitation engineering; (ii) project management and finance; (iii) operational and commercial management of utilities; (iv) structuring the process for hiring Specialized Operators; (v) law and contract management; (vi) community participation, public education and communications; (vii) Bank safeguard policies; (viii) environmental management; (ix) social development and indigenous people's issues; and (x) fiduciary functions including procurement and financial management. The PIU will be established by hiring a specialized consulting firm which will provide the required personnel. A consultant firm has been hired by the Department of La Guajira through a competitive process to assist in preparation and this unit will be strengthened during implementation. Figure 2 below presents the structure of the PIU.

8. The PIU will report officially to a delegated representative of the Governor (e.g. *Secretaria de Hacienda*) who will have the formal authority to make Project-related decisions,

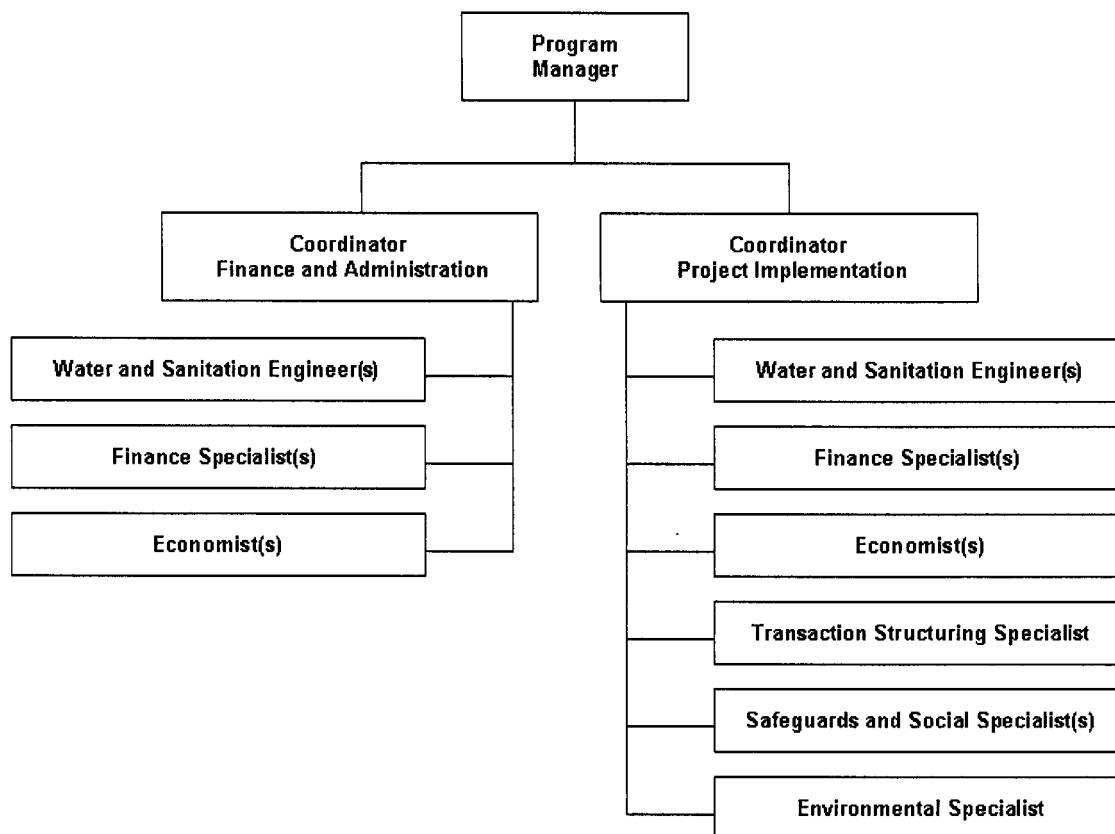
sign contracts and communicate with the Bank and other external actors on behalf of the Project. The PIU will maintain a direct line of communication with the Bank in relation to routine supervision and fiduciary issues.

9. Core tasks of the PIU will be to provide technical, financial, legal, social, communications and environmental support to the Specialized Operators, municipalities and the Department to facilitate the implementation of all Project activities. Specifically, the PIU will perform the following principal functions:

- Lead efforts to structure and review operational arrangements with Specialized Operators – including the adjustment and renegotiation of existing contracts and managing the hiring of new operators where appropriate.
- Issue procurement notices for all works on behalf of Specialized Operators.
- Conduct technical and fiduciary supervision of works to be implemented under Component 1 of the Project for urban water and sanitation service improvements.
- Provide a suite of high-quality technical assistance to Specialized Operators and municipalities on fiduciary, safeguards, community participation, communications and environmental education and investment planning aspects for the first Phase of the APL.
- Implement the pilot rural component, *inter alia* identifying with the Department and Project Executive Committee, and in collaboration with the beneficiaries, the rural intervention sites, developing each subproject and implementing it.
- Prepare implementation arrangements for the scaling-up of the rural pilot which is likely to take place under APL II and for overseeing additional technical and analytical work which would be used for the design of APL II.
- Implement all Project management, monitoring, evaluation, auditing and related activities associated with Component 3.
- Assume primary responsibility for maintaining financial management controls, reviewing all procurement activities, and the processing of withdrawal application.
- Monitor the operational and commercial performance of Specialized Operators.
- Lead and coordinate community participation, social control and public education activities for the Project.

10. The use of a PIU in the case of La Guajira is consistent with the Bank's approach in Colombia which, while establishing that the "default" *modus operandi* for Bank-financed operations would be to use relevant line agencies, in the case that no such entity exists, does not need to exist after Project completion, and when the PIU does not create a parallel entity to a permanent and existing institution, the use of PIU can be justified.

Figure 2: PIU Structure



11. Execution through Specialized Operators. The Project, consistent with national sector policy for capital investment subsidies, will work only with municipalities that have a Specialized Operator – be it public or private – that is commercially independent. Specialized operators have full responsibility for managing the utility which would include tariff setting, billing and collection, and provision of the services, all in accordance with the terms stipulated in their contracts. An operator can be hired by either one municipality to serve only this municipality, as in Riohacha and Maicao, or by a regional association, as is the case for the cluster of seven municipalities in southern La Guajira. Most municipalities in the Project area have already hired operators. In these cases, existing operator contracts would have to be restructured and renegotiate as the Project will introduce new, more ambitious performance targets and investment requirements. Some municipalities, however, do not currently have a Specialized Operator and are expected to either associate with an existing operator or initiate a new Specialized Operator contract during Project implementation. The PIU will manage the restructuring and renegotiation of the existing contracts so as to adapt them to the new performance targets for the Project. Additionally, the PIU will prepare and implement the bidding processes for hiring the required new operators.

12. Specialized operators will play a key role in Project implementation with two core functions: (i) preparation of annual capital investment plans; and (ii) execution of approved works under Component 1 and associated procurement and financial management functions. Operators will prepare investment plans that will be reviewed by the Project Technical Committee and approved by the Project Executive Committee. Operators will subsequently be responsible for

managing the procurement processes for all works, goods and services associated with the implementation of these investment plans. In particular cases, to be identified by the Project Technical Committee, the Project may finance directly design services for technically complicated works. In order to ensure a high quality of implementation, the Project will directly finance *interventoría* (independent construction supervision) costs which would be handled by Specialized Operators or their agents.

13. Fiduciary Agent and Flow of Funds. All Project funds - including loan proceeds and Department, municipal and national government counterpart funds - will be managed by an independent fiduciary agent (*fiduciaria*). The fiduciary agent will be contracted through competitive public bidding process by the Department. Terms of reference for the proposed fiduciary agent were reviewed by the Bank prior to Negotiations. Given the flow of funds arrangements described in this document, Project disbursements will not take place until the fiduciary agent is contracted.

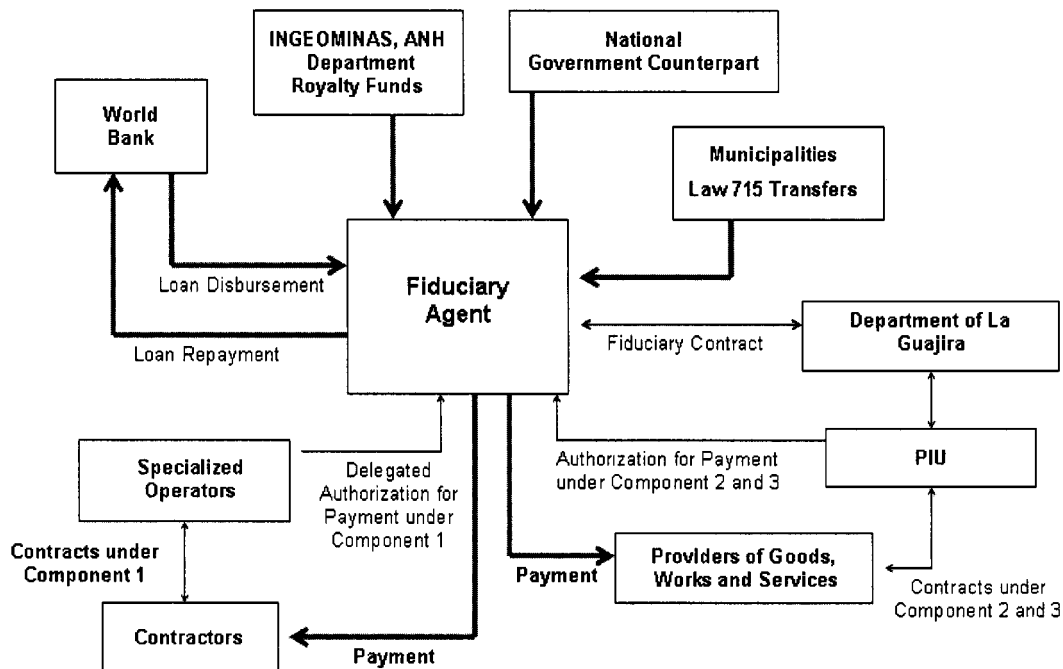
14. Department counterpart resources will come from royalty revenues and will pass directly from INGEOMINAS and ANH to the fiduciary agent. Municipal counterpart resources will come from transfer funds under Law 715 which specifies that all transfer funds must pass first to municipal accounts. The municipality will subsequently pass counterpart funds to the fiduciary agent based on terms specified in the *Convenio de Apoyo Financiero* that will be signed between the Department and the municipality. Municipalities that fail to transfer counterpart funds will not be eligible for works under the Project. National Government counterpart funds will similarly be deposited into the fiduciary account. Lastly, Bank proceeds will pass from a Special Account to the fiduciary agent based on disbursement procedures summarized in Annex 7.

15. The fiduciary agent will manage separate accounts for each source of Project funds. Upon the approval of annual capital investment plans, the PIU – with the clearance of the Project Executive Committee – will assign Project funds to approved works. The primary authorizing agent (*fideicomitente*) for the fiduciary account will be the delegated representative of the Department of La Guajira assigned by the Governor. This representative will serve as the sole agent authorized to issue instructions to the fiduciary for payments under Components 2 and 3. Due to the high volume of transactions expected under Component 1, however, the Project will delegate this authority to issue payment instructions to a designated representative for each Specialized Operator. Upon the approval of each bidding process the Departmental authorizing agent will send special instructions to the fiduciary identifying the authorized delegated representative of the Specialized Operator on a contract-by-contract basis.

16. The fiduciary agent will handle all payments for works, goods and services of each operator under Component 1 and for Component 2 and 3 and for Loan repayment. Flow of funds arrangements are outlined in detail in Figure 3 below.

17. Consistent with agreements with the National Government, the use of a fiduciary agent for the operation is justified given that: (i) the fiduciary agency hired under the Project would be selected among commercially available entities that would provide basic fiduciary management services; (ii) the fiduciary agent would be selected on a competitive basis; and (iii) this approach has been successfully used under other operations (Water Sector Reform Assistance Project, Loan 7077-CO and the Water and Sanitation Sector Support Project, Loan 7281-CO).

Figure 3: Flow of Funds Arrangements



18. **Role of Municipalities.** Municipalities will be closely involved in Project oversight and agree to provide specific support in implementation. In particular, municipalities will: (i) agree to hire Specialized Operators in cases where operators are currently not in place and renegotiate existing operator contracts; (ii) sign new or renegotiated investment contracts with the operator; (iii) accept the financial support of the Department and sign the respective financial support contract (*Convenio de Apoyo Financiero*) with the Department; (iv) transfer Law 715 funds to the fiduciary agents periodically as agreed in this contract; (v) transfer the use of all the water and sanitation assets to the operator during the contract period; (vi) obtain all licenses necessary for operating the water and sanitation services as the municipality officially remains in charge of the services; (vii) monitor the operation with investment contract; and (viii) participate in both the Project Executive Committee and Project Technical Committee.

19. **Role of the Department.** The Department would agree to provide financial support to the water sector and sign the Loan Agreement with the Bank, the Guarantee Agreement with the National Government and the financial support contracts with the municipalities. Under the conditions of the Loan Agreement and Guarantee Agreement, the Department has agreed to provide a share of its current revenues – primarily from its royalty revenues – to the fiduciary agent, both as counterpart funds and as debt service funds. The Department has hired the PIU and agrees to work with and support it throughout Project implementation, signing all the contracts and documents as necessary (for instance, Loan withdrawal applications), and to participate in both the Project Executive Committee and Project Technical Committee.

20. **CORPOGUAJIRA.** The regional environmental authority, CORPOGUAJIRA, will participate in the Project Executive Committee and, in accordance with Colombian law and procedures, would be responsible for providing environmental licenses which will be required during Project implementation.

21. Role of the National Government. The MAVDT, which represents the primary interlocutor of the National Government in the Project, has been deeply involved in preparation and in providing technical, environmental, social, financial and legal support to the Department, the municipalities and the operators. The MAVDT has served as a critical proponent of the operation amongst local and departmental actors in La Guajira and has also performed an important role in obtaining approval of the Project within the Government and in the Congress. The MAVDT will continue to provide support and guidance during Project implementation through its participation in both the Project Executive and Project Technical committees. In this capacity, the National Government will be involved in the renegotiations of the existing operation contracts, approval of investment plans and the supervision of overall Project implementation.

22. Project Executive Committee. A Project Executive Committee will be established and will include senior representatives of the Department, MAVDT, CORPOGUAJIRA and municipalities. Representatives of the contracted fiduciary agent will also participate in the committee as observers. The executive committee will meet on a quarterly basis and will be responsible for providing overall guidance on implementation. Specifically, key committee responsibilities will include the: (i) review of overall PIU and Fiduciary Agent performance; (ii) approval of annual capital investment plans; (iii) approval of the designation of Project funds to specific contracts; (iv) approval of renegotiated and new contracts with existing or new Specialized Operators; (v) review lessons from Project monitoring and evaluation instruments; and (vi) provide guidance on specific implementation problems as they arise. The committee will ideally reach decisions in consensus. However, the MAVDT will retain veto power based on the terms specified in the counter guarantee agreement between the Department and Government.

23. Project Technical Committee. A Project Technical Committee will be established by the PIU with the involvement of technical staff from the Department, PIU, MAVDT, municipalities and Specialized Operators. Representatives of the contracted fiduciary agent will also participate in the committee as observers. The committee will meet on a monthly basis to provide technical guidance under implementation. Specifically, key committee responsibilities will include the: (i) technical review of annual capital investment plans; (ii) technical review and approval of designs, bidding documents and evaluations prepared by Specialized Operators; (iii) periodic review of lessons from technical supervision instruments built into Project design; and (iv) provision of guidance on specific technical problems as they arise. The committee will be constituted to include representatives of specific operators and municipalities as technical issues associated with these municipalities arise.

24. Project Information Committees. At the level of each municipality, a Project Information Committee will be established by the municipal authorities to provide for a feedback mechanism to allow citizens to voice opinion as regards the POIs. This committee, which would meet at the time of the preparation of the POI, would allow for greater transparency and provide a venue for public inquiry.

25. Contractual Agreements. A series of contractual and cooperation agreements will be signed in association with Project implementation. These include:

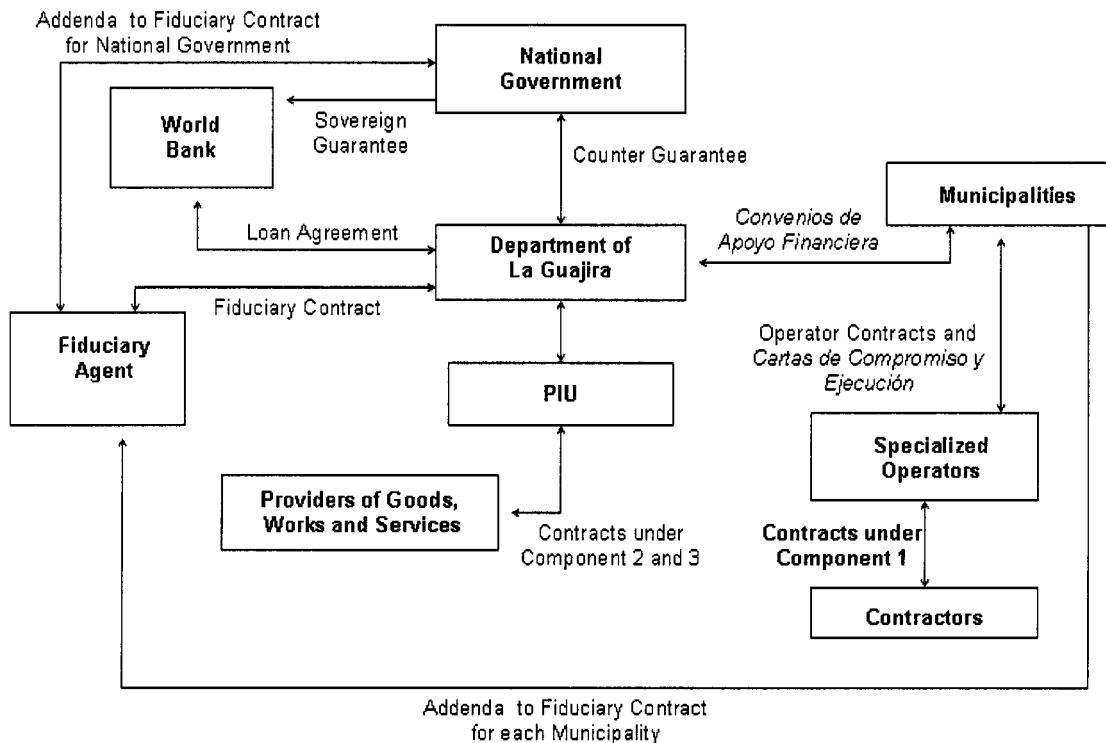
- a Loan Agreement between the Bank and the Department of La Guajira, with the National Government Guarantee;
- a contract with the fiduciary Agent;
- for each municipality, a Financial Support Agreement (*Convenio de Apoyo Financiero*) between the Department and the corresponding municipality and its Specialized Operator which would: (i) describe, in general terms, the investment program to be

financed; (ii) stipulate the commitment of the municipality to use the appropriate procurement guidelines for executing the works; (iii) establish the funding obligations of the municipality and service provider (contribution of Law 715 transfers and own-source revenues including tariff income or other sources); and (iv) specify any additional conditions and issues associated with the contribution of investment funds by the Government, including the specific institutional reform targets for improving the financial and operational performance of local services;

- for each municipality, a side agreement (*Carta de Compromiso y Ejecución*) which would be signed at the same time as the Financial Support Agreement under which the municipality would agree with the special operator on execution and performance improvement arrangements and reflect agreements reached in the operator contract, departmental financing commitments and municipal commitments to transfer Law 715.
- for each municipality or association of municipalities, a new or renegotiated contract of operation with investment between the Specialized Operator and the respective municipality or association of municipalities; and
- individual contracts between the PIU or Specialized Operators for goods, works and services required under the Project.

Figure 4 outlines contractual agreements that will govern Project implementation.

Figure 4: Contractual Arrangements



26. **Monitoring and Evaluation Framework.** A rigorous monitoring and evaluation framework has been developed for the Project and is outlined in detail in Annex 3. Key elements of the Framework include: (i) extensive technical supervision instruments; (ii) rigorous Bank technical and fiduciary supervision; (iii) operational and commercial performance; (iv) consumer

satisfaction surveys; (v) environmental health baseline and impact assessment; and (vi) mid-term and Project completion evaluations.

27. Instruments for Beneficiary Participation and Oversight. The PIU will execute outreach and dissemination activities for “socialization” of the Project. A staff member on the PIU will be responsible for ensuring that, prior to the finalization of each investment program (POI), activities are undertaken to disseminate the POI and allow for communities and their representatives to comment. In addition, throughout Project implementation, the PIU, through both its dedicated social specialist(s) and/or outsourced specialized activities for outreach and communication, would be responsible for: continuous local outreach, coordination of educational/environmental activities, screening subprojects for resettlement and/or potential impacts on Indigenous Peoples, establishing representative community committees (*Veeduría Ciudadana*, in accordance with Colombian Law), and allowing for Project management to understand and address grievances or comments on work plans or investment activities. The PIU will also monitor the performance of the operators (including the coordination social/educational activities) during the Project implementation period and train the public utilities and build their capacity to monitor the performance of the operators after the Project closes.

28. Communications Strategy. Throughout the life of the Project, the PIU will carry out a communications effort to disseminate Project information to the widest possible audience, including diverse actors such as national and municipal governments, local and national media, contractors, community leaders, politicians, business leaders, social control organizations, indigenous communities, and the citizens of La Guajira. The strategy will publicize basic information such as the Project objectives, services to be delivered and their timetable, financing levels and sources, contracting arrangements, eligibility criteria, and work plans. A second but equally important aspect of the communications message will be the preeminence of transparency in this Project – i.e. all contracting and execution of public works will be public and open, and existing as well as Project-specific mechanisms for social control and public accountability will be used to ensure that Project activities are open to public scrutiny.

29. In order to ensure that citizen complaints about corrupt practices are channeled to the proper authorities and handled in a professional and appropriate manner, the PIU will make a special effort to publicize the channels available to report any irregularities or suspicions of corruption. Specifically, Project-related dissemination materials will explicitly include the confidential and toll-free telephone number for the Colombian Anti-corruption Czar, (018000913040). More details can be found at:

http://www.anticorrupeion.gov.co/buzon_denuncias/index.htm

Financial Management and Audit Arrangements

30. The Borrower is the Department of La Guajira. However, the Project is not aimed at improving the overall performance or financial management capacity of the Departmental Government, but rather the performance of the water sector in the Department, which is a municipal responsibility within the regulatory framework in place in Colombia. The Department has decided to support improvements in water sector performance by allocating part of its income – primarily royalty revenues – as capital investment subsidies for the water and sanitation sectors in all the municipalities in La Guajira, at an annual amount of approximately US\$ 10 million during a period of four years of Project implementation and 12 years of repayment. Thus, for the purposes of the Project, the Department acts as a facilitator to resolve the water sector issues and as a conduit of investment subsidies to the municipalities. However, the Department does not play

an important role in managing municipal water utilities. This responsibility remains that of the municipalities which delegate this responsibility to Specialized Operators.

31. Project funds at the Departmental level will be handled through a fiduciary account (*Fiduciaria*) in a certified fiduciary institution. This fiduciary account will receive the portion of the royalty funds, municipal funds from Law 715, national government counterpart and Loan proceeds. During Project implementation, the fiduciary agent will transfer to the Bank interest payments, if any, due. After Project closing, the fiduciary account will continue to receive the carbon royalty funds and will repay the Bank Loan.

Operational Manual

32. The Operational Manual is an essential tool for Project implementation and has been designed to maintain the institutional memory of the Project throughout its implementation and therefore includes all relevant information regarding the Project and procedures to guide the Department of La Guajira (detailed information on subproject evaluation, reviews and approval, instructions for document flows, standards for progress reports, procurement and disbursement procedures, operational agreements between the participating agencies, monitoring and evaluation arrangements, etc.). The Operational Manual is wholly consistent and based upon those prepared for Loan 7077-CO and 7281-CO, respectively. A draft Operational Manual was reviewed prior to Negotiations.

Annex 7: Financial Management and Disbursement Arrangements
COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project

Organizational Arrangements

1. **Country issues.** The Borrower will be the Department of La Guajira. In accordance with the Project's anti-corruption strategy, it has been decided that no Bank funds will flow through the Department, all Project funds will be ring-fenced, and the Project implementation entity will be an independent management team (see Annex 11 for details). In light of these arrangements, the Bank's Financial Management (FM) Unit has concluded that FM arrangements at the Departmental level have no significant bearing on the Project.

2. **Implementation arrangements.** For FM purposes, there are two principal actors: the Program Implementation Unit (PIU) and the Fiduciary Agent (*Fiduciaria*). Responsibilities over major FM processes are described in this table (overall distribution of functions is detailed in Annex 6):

Process	PIU	<i>Fiduciaria</i>
Budgeting	<ul style="list-style-type: none"> Prepares annual budgets (investment plans) 	<ul style="list-style-type: none"> Records annual budgets
Receipts	<ul style="list-style-type: none"> Prepares withdrawal applications Facilitates and oversees transfers of counterpart funding from the Department and municipalities 	<ul style="list-style-type: none"> Records receipts made into designated bank account for Loan funds Records receipts made into counterpart bank accounts
Contracts	<ul style="list-style-type: none"> Component 1: Reviews contracts and adjustments prepared by operators, processes Bank's No Objections, and approves the contracts and modifications. Components 2 & 3: Prepares contracts and adjustments, and processes Bank's No Objections. 	<ul style="list-style-type: none"> Records contracts and adjustments after receipt of full supporting documentation from the PIU
Payments	<ul style="list-style-type: none"> Component 1: Reviews the Department's delegation of payment order authorization to operators and oversees contract implementation Components 2 and 3: Prepares payment orders 	<ul style="list-style-type: none"> Reviews payment orders against contract provisions, eligibility criteria and supporting documentation Assigns sources of funding in accordance with Project financing arrangements Makes and records payments to contractors
Cash balances	<ul style="list-style-type: none"> Reviews bank reconciliations 	<ul style="list-style-type: none"> Opens designated bank account for Loan funds and other bank accounts for counterpart funds Prepares monthly bank account reconciliations
Accounting		<ul style="list-style-type: none"> Maintains Project accounting records and information system

Interim financial reports	<ul style="list-style-type: none"> • Reviews, distributes and publishes Project financial reports • Submits quarterly financial reports to the Bank along with withdrawal applications 	<ul style="list-style-type: none"> • Prepares Project financial reports on a monthly and quarterly basis
Annual audited financial statements	<ul style="list-style-type: none"> • Contracts Project external auditors • Reviews, distributes, publishes, and submits to the Bank the annual audited Project financial statements 	<ul style="list-style-type: none"> • Prepares annual Project financial statements • Provides access to external auditors and facilitates their review

3. The *gobernación* has established a PIU staffed by consultants, hired as a firm, until October 2007. The staffing of the PIU will evolve either via extending the firm's contract or via competitive selection of new consultants. The PIU, as currently staffed, is adequately staffed by professionals in charge of FM functions, among others. The *fiduciaria* has not been appointed but is being selected through a competitive process selected from top performing *fiduciarias* supervised by the country's Financial Superintendence.

4. The described situation calls for a field assessment of the operation of the *Fiduciaria* and final PIU before Loan Effectiveness.

Budget Planning

5. Annual cash flow programs have been prepared for the life of the Project and the Loan. On this basis, the PIU will update and prepare the annual budgets (investment plans) during Project implementation, and monitor their execution through monthly and quarterly financial reports. These reports will be distributed to the relevant stakeholders listed in Annex 6. The Bank will review the annual investment and procurement plans.

Accounting and Financial Reporting

6. **Accounting and Internal Control Policies and Procedures.** Project accounting records will be maintained on a cash basis, complemented with controls and registries for contract management (including advances) and fixed assets. Accounting records and information systems will be provided by the *Fiduciaria*. Knowing that the pool of top performing Fiducias from which the selection will be made usually have qualified staff and sophisticated accounting systems, no issues are expected for FM purposes.

7. The Project-specific FM and internal control procedures will be documented in the Operational Manual, a draft of which was reviewed by the Bank prior to Negotiations. The final version of the Manual will be approved before Effectiveness.

8. **Financial Reports.** The *Fiduciaria* will prepare, and the PIU will review and distribute, the Project financial reports, which will have a monthly and quarterly periodicity. The quarterly interim financial reports (IFRs) will be submitted to the Bank not later than 45 days after the end of each quarter and will contain:

- Financial statements: (i) statement of sources and uses of funds (with actual and budgeted figures) and cash balances; (ii) contract management statement with contracts (including cumulative payments and adjustments made) classified by component and municipality; and (iii) notes to the financial statements.

- Disbursement schedules: (i) schedule of justified expenditures per Loan disbursement category; (ii) Designated Account activity schedule (including a copy of the bank statement and reconciliation); and (iii) cash forecast for the two subsequent quarters.

9. On an annual basis, the *Fiduciaria* will prepare, and the PIU will review and distribute, the Project financial statements including cumulative figures, for the year and as of the end of that year, of the financial statements cited previously. The financial statements will also include Project management's assertion that loan funds were used in accordance with the intended purposes as specified in the Loan Agreement. These financial statements, once audited, will be submitted to the Bank not later than six months after the end of each calendar year.

10. The supporting documentation of the quarterly and annual financial statements will be maintained by the PIU and the *Fiduciaria* (per the division of responsibilities described earlier), and made easily accessible to Bank supervision missions and to the Project external auditors. All financial reports will be made public, including through posting in the web pages of the Project and the Department. As recipient of all financial reports, the Department will be able to include the pertinent financial information into its own budgetary and accounting records.

Funds Flow

11. The Project flow of funds arrangements are explained in Annex 6. Below are the specifics for Loan financing.

12. **Disbursement Method.** Loan proceeds will be withdrawn by the PIU using the advance method with supporting documentation of expenditures based on IFRs (as described above).

13. During implementation, the Project will sustain satisfactory FM arrangements and submit acceptable audited financial statements by their due date. If these criteria are not met, the supporting documentation requirements will be changed to records only, provided the Bank does not suspend disbursements because of non-compliance with the obligation to maintain an adequate FM system.

14. **Designated Account.** The *Fiduciaria* will open and maintain a segregated account in US Dollars in a commercial bank to be used exclusively for deposits and withdrawals of loan proceeds for eligible expenditures. After the Designated Account has been opened, the PIU will submit the first disbursement request to the Bank for the advance covering cash needs for two quarters. For subsequent withdrawals, the PIU will submit each disbursement request along with the quarterly IFR.

15. The Designated Account ceiling, i.e. the maximum amount that may be on deposit pending the provision to the Bank of IFRs evidencing the use of advanced funds has been established as a fixed amount of US\$ 10 million.

16. **Transfers from the Designated Account.** Loan proceeds on deposit in the Designated Account will be transferred periodically to an "operational bank account" in Colombian Pesos, with the exclusive purpose of making payments to providers of eligible goods, works and services. Balances in both the Designated and operational bank accounts will be reconciled by the *Fiduciaria* and reported on the IFRs. In the case that insufficient resources are available from counterpart funding to make full payment to a contractor or service provider, payment would be

delayed until such funds are available from the counterpart funds. At no time would the disbursement percentage of Loan resources be increased to accommodate such a shortfall.

17. **Other Disbursement Methods.** For retroactive expenditures, the reimbursement method will be used. During implementation, the use of reimbursement and direct payments by the Bank may be needed during peak payment periods, should balances in the designated account not suffice due to special and justified circumstances. The minimum amount for direct payments would be of 20 percent of the designated account's ceiling.

18. **Loan Disbursement Schedule**

Disbursement Category	% Bank Financing	US\$
Category 1 – Goods, Works, and Services for Urban Water Supply and Sewerage Infrastructure Component	70%	76,000,000
Category 2 – Goods, Works, and Services for Rural Pilot Component	100%	7,000,000
Category 3 – Goods and Services for Program Management and Analytical Activities Component	100%	7,000,000
Total		\$ 90,000,000

19. **Retroactive financing.** A maximum amount of US\$ 3 million under Category 3 may be financed by the Loan for eligible payments made after Project identification and within 12 months of the date of the Legal Agreement.

Audit Arrangements

20. **Internal Audit.** Given the division of responsibilities and cross-checks between the PIU and the *Fiduciaria*, the external audit arrangements, and the Bank's supervision plan (including intensive prior reviews as described in Annex 8), no need has been identified for a Project internal audit function. This need will be reassessed during Project implementation.

21. **External Audit.** The annual Project financial statements will be audited following International Standards on Auditing (ISA), by an independent qualified firm and in accordance with terms of reference (TORs) both acceptable to the Bank. The audit opinion covering the reasonableness of Project financial statements will also contain a reference to the eligibility of expenditures.

22. In addition to the annual audited financial statements, the external audit engagement will include at least one interim visit covering the first semester of the year, a product of which will be an interim report on internal controls to be submitted the Bank.

23. The external audit contract can be financed with loan proceeds. The PIU will arrange for the first external audit within three months after loan effectiveness. Each audit engagement is expected to cover at least two years.

Financial Management Action Plan

Action	Responsible Entity	Completion Date ²⁷
1. Prepare and clear with the Bank the draft FM contents of the Operational Manual, format of IFRs, and audit TORs.	PIU	February 12, 2007
2. Prepare and clear with the Bank the terms of reference for the <i>Fiduciaria</i> contract.	PIU	February 12, 2007
3. Finalize the Operational Manual, format of IFRs and audit TORs.	PIU	Before effectiveness
4. Conduct field FM assessment of the operation of the <i>Fiduciaria</i> and final PIU	WB	Before effectiveness

24. **Bank FM Supervision Plan.** A Bank FM Specialist should perform a supervision mission prior to effectiveness to verify the contractual terms and operation of the *Fiduciaria* and PIU. After effectiveness, the FM Specialist should review the quarterly IFRs and annual audit reports, and should perform at least one supervision mission per year.

FM risk

25. The *FM inherent risk*, defined as that which arises from the environment in which the Project is situated, is high for the reasons explained in the Project anti-corruption strategy (Annex 11). The *FM control risk*, defined as the risk that the Project's FM system is inadequate to ensure Project funds are used economically and efficiently and for the purpose intended, is modest given the proposed engagement of an independent and qualified *Fiduciaria* to carry out most FM processes, complemented with cross-checks from a properly-staffed PIU, external audits by an independent and competent firm, and regular supervision by Bank staff.

26. The implementation of FM arrangements described in this Annex (and to be detailed in the Operational Manual), together with other anti-corruption measures embedded in Project design, intend to lower the overall FM control risk and the *residual FM risk rating*, defined as the combination of the Project's inherent and control risks as mitigated by the client control frameworks and Bank supervision effort, to a moderate level.

Guidelines

27. The financial management and disbursement provisions of the Loan Agreement, the Operational Manual, and the arrangements described above are to be complemented by the following Bank documents:

- Financial Monitoring Reports: Guidelines to Borrowers
- Guidelines: Annual Financial Reporting and Auditing for World Bank-Financed Activities
- Disbursements Guidelines and Disbursements Handbook

²⁷ This column denotes the expected date of completion for each action. It does not give indication of legal conditions.

Annex 8: Procurement
COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project

A. General

1. Procurement for the proposed Project would be carried out in accordance with the World Bank's "Guidelines: Procurement Under IBRD Loans and IDA Credits" dated May 2004; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, and the provisions stipulated in the Legal Agreement. The various items under different expenditure categories are described in general below. For each contract to be financed by the Loan, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual Project implementation needs and improvements in institutional capacity.

2. **Procurement of Works.** Works procured under this Project would include, *inter alia*, expansion and rehabilitation of water supply and sewerage networks and water supply and wastewater treatment and disposal infrastructure and other construction and rehabilitation contracts. The procurement will be done using the Harmonized Standard Bidding Documents (SBD) for all ICB and a National SBD agreed with or satisfactory to the Bank (or its harmonized version, when available). The *Gobernación* has agreed that all works contracted under the Project, including those using resources other than those from the Loan, would be procured using Bank procurement procedures in line with the thresholds established under the Loan Agreement.

3. **Procurement of Goods.** Goods procured under this Project would include pipes, pumping equipment, and other equipment necessary for the expansion and rehabilitation of water supply and sewerage networks and water supply and wastewater treatment and disposal infrastructure. The procurement will be done using the Harmonized SBD for all ICB and National SBD agreed with or satisfactory to the Bank (or its harmonized version, when available). For smaller goods purchases, a model of Invitation to Quote under shopping procedures will be agreed upon with the Bank.

4. **Selection of Consultants.** The Project would require consulting services in the field of monitoring and evaluation; training services; civil works design and supervision; project and contract management; specialized studies and analysis; publicity campaigns and technical advisory work. Short lists of consultants for services estimated to cost less than \$350,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. The participation of universities, government research institutions, public training institutions and NGOs in some specialized fields of expertise is expected.

5. **Firms.** Most contracts for firms are expected to be procured using Quality and Cost Based Selection Method (QCBS). Consultant assignments of specific types as agreed previously with the Bank in the Procurement Plan may be procured with the use of the following selection methods: (i) Quality Based Selection (QBS); (ii) Selection under a Fixed Budget (SFB), especially for works supervision contracts; (iii) Least Cost Selection (LCS); (iv) Selection Based on Consultants' Qualifications (CQS), for contracts estimated to cost below US \$200,000

equivalent; and, exceptionally (v) Single Source Selection (SSS), under the circumstances explained in paragraph 3.9 of the Consultants' Guidelines. The harmonized RFP must be used.

6. **Individuals.** Individual consultants will be hired to provide technical advisory and Project support services and selected in accordance to Section V of the Guidelines.

7. **Operating Costs.** The Project might finance operating expenses, including logistics services for trainings and workshops; travel expenses of approved personnel commissioned under Project activities; internet connectivity; communications expenses; office consumables; printing and reproduction services; publication of procurement notices; publicity and marketing efforts.

8. The procurement procedures and SBDs to be used for each procurement method, as well as model contracts for works and goods procured, are presented in the Operational Manual.

B. Assessment of the agency's capacity to implement procurement

9. Procurement activities and all Project technical management will be carried out by the Program Implementation Unit (PIU). The PIU is staffed by consultants who were selected as a firm through a competitive process, and whose contract is in place until October 2007. The PIU is staffed by the specialists required for Project implementation and the procurement function is staffed by a group of specialists under the leadership of a consultant with ample and large experience in Bank-funded procurement. This firm has the capacity to undertake all procurement-related activities.

10. An assessment of the capacity of the Program Implementation Unit to implement procurement actions for the Project will be carried out by the Procurement Accredited Specialist (PAS) as staffing evolves. In the case that new consultants are selected, either as individuals or hired as a firm, the assessment will review the organizational structure for implementing the Project and the interaction between the Project's staff responsible for procurement and the Department of La Guajira's relevant central unit for administration and finance.

11. The key issues and risks concerning procurement for implementation of the Project have been identified and include: (i) weak governance, corruption, (ii) capture of contracts by elites and special interests, (iii) the paucity of accountability and transparency, (iv) the Project may be a political target in the local election campaign.

12. The corrective measures which have been agreed upon in order to minimize procurement-related risks are:

- a) The procurement arrangements include 100% prior review of international and national competitive bidding processes for procurement of civil works and goods; a low threshold for prior review of consultant selection processes (\$100,000 for firms, \$50,000 for individual consultants);
- b) The arrangements agreed upon include a low threshold for NCB for civil works (all contracts between US\$50,000 and US\$5,000,000);
- c) Project activities will include the mandatory publication of procurement notices and results for all contracts in national media, including in the webpages of the Program Implementation Unit, Department of La Guajira, MAVDT, and on the relevant central government webpages including the Portal Único;
- d) As part of Project supervision by the Bank, an NGO or an independent entity will be contracted by the Bank to provide support and oversight services to monitor program

- performance and to assess the institutional performance of the technical management team and the institutional arrangement as a whole;
- e) The Bank will apply a more frequent supervision approach to the Project, with two procurement missions in the first year of Project life;
 - f) The implementing agency, together with the Specialized Operators, will prepare “price lists” reflecting the average estimate costs of the civil works, goods and consulting services packages based on market realities in La Guajira and other Colombian Departments in order to deter the possibility of rigged prices and/or collusion from bidders;
 - g) The Bank will lead a seminar to explain Bank procurement procedures for La Guajira local governments, industry and civil society will be organized before the effectiveness of the loan;
 - h) A seminar to explain Bank procurement procedures for La Guajira local government staff will be organized approximately in February or March of 2008, once the new authorities have taken over the Department and municipalities; and
 - i) The *fiduciaria* for managing Project funds may be selected on a competitive process satisfactory to the Bank, if its contract is financed by the Bank.
13. Thresholds for prior review may be revised during Project’s Mid-Term Review, based on Project procurement performance.
14. The overall Project risk for procurement is **HIGH**

C. Procurement Plan

15. The Borrower, at Appraisal, developed a procurement plan for Project implementation which provides the basis for the procurement methods. This plan was agreed upon between the Borrower and the Bank on February 2, 2007. It will also be available in the Project’s database and in the Bank’s external website. The Procurement Plan will be updated in agreement with the Bank annually or as required to reflect the actual Project implementation needs and improvements in institutional capacity.

D. Frequency of Procurement Supervision

16. In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the Implementing Agency has recommended 2 missions during the first year of Project life and, based on good procurement performance, one annual mission to visit the field to carry out post review of procurement actions.

E. Details of the Procurement Arrangements Involving International Competition

1. Goods, Works, and Non-Consulting Services

- (a) List of contract packages to be procured following ICB and direct contracting:

RIOHACHA: GOODS AND WORKS FOR WATER AND SANITATION, 2007

INTERNATIONAL COMPETITIVE BIDDING (ICB)

Ref. No.	Contract (Description)	Estimated Cost (CO\$)	Estimated Cost (US \$)	Real Cost (CO\$)	Procure- ment Method	Category	Review by Bank (Prior / Post)	Expected Bid- Opening Date	Contract Date	Final Date Contract	Comments
LICITACION No 1	Grupo 1: Reposición equipos y optimización estación No. 1 y No. 2	2,887,056,000	1,312,298		ICB	Goods	Prior	Apr-07	Jun-07		
	Grupo 2: Reposición y Optimización línea impulsión este No. 1 y No 2										
	Grupo 3: Renovación General de equipos y optimización estación No. 3										

**RIOHACHA: GOODS AND WORKS FOR WATER AND SANITATION, 2007
NATIONAL COMPETITIVE BIDDING (NCB)**

Ref. No.	Contract (Description)	Estimated Cost (CO\$)	Estimated Cost (US \$)	Real Cost (CO\$)	Procure- ment Method	Category	Review by Bank (Prior / Post)	Expected Bid- Opening Date	Contract Date	Final Date Contract	Comments
LICITACION No 1	Grupo 1: Rehabilitación y reposición tramos y accesorios nueva conducción acueducto										
	Grupo 2: Rehabilitación y reposición tramos y accesorios nueva conducción acueducto										
	Grupo 3: Optimización infraestructura planta tratamiento	925,258,000	420,571		NCB	Civil Work	Prior	Mar-07	Apr-07		
LICITACION No 2	Rehabilitación distrito I, II, III, IV y V	850,000,000	386,363		NCB	Civil Work	Prior	Jul-07	Sep-07		
LICITACION No 3	Grupo 1: Expansión redes perímetro barrio arriba										
	Grupo 2: Reposición redes menores de 2" en distritos varios	278,000,000	126,363		NCB	Civil Work	Prior	Mar-07	Apr-07		
LICITACION No 4	Micromediadores Estratos 1 A 3	425,000,000	193,181		NCB	Goods	Prior	Feb-07	Mar-07		
LICITACION No 5	Instalación generación a gas estación No. 3	427,370,000	194,259		NCB	Civil Work	Prior	Mar-07	Apr-07		
LICITACION No 6	Nuevas estaciones bombeo No. 4 y 6	1,526,502,000	693,864		NCB	Civil Work	Prior	Sep-07	Oct-07		

RIOHACHA: GOODS AND WORKS FOR WATER AND SANITATION, 2007
NATIONAL COMPETITIVE BIDDING (NCB)

Ref. No.	Contract (Description)	Estimated Cost (CO\$)	Estimated Cost (US \$)	Real Cost (CO\$)	Procure- ment Method	Category	Review by Bank (Prior / Post)	Expected Bid- Opening Date	Contract Date	Final Date Contract	Comments
LICITACION No 7	Construcción nuevas líneas de impulsión estación 5 y 6	2,180,640,000	991,200		NCB	Civil Work	Prior	Sept-07	Oct-07		
LICITACION No 8	Grupo 1: Reposición tramos colapsados centro, Calle 1 Carrera 1c, Calles 2 a 7										
	Grupo 2: Proyectos rehabilitación distrito I, IIIb, IV, y V										
	Grupo 3: Reposición colectores C14a / K4 Distrito II, C13 Entre K 12 a 15 y C12 y 13, Distrito II y IIIa, Barrio 20 De Julio	3,829,640,000	1,740,475		NCB	Civil Work	Prior	Jun-07	Jul-07		
LICITACION No 9	Grupo 1: Tramos faltantes Carrera 7 Calles 16/34, y tramos 445/588 Cra. 7 - Calle 20										
	Grupo 2: Proyectos expansión Distrito II, La Majayura IV, Distrito IV y V y expansión barrios varios	5,978,500,000	2,717,500		NCB	Civil Work	Prior	Jul-07	Aug-07		

RIOHACHA: GOODS AND WORKS FOR WATER AND SANITATION, 2008
NATIONAL COMPETITIVE BIDDING (NCB)

Ref. No.	Contract (Description)	Estimated Cost (CO\$)	Estimated Cost (US \$)	Real Cost (CO\$)	Procure- ment Method	Category	Review by Bank (Prior / Post)	Expected Bid- Opening Date	Contract Date	Final Date Contract	Comments
LICITACION No 1	Grupo 1: Rehabilitación y reposición tramos y accesorios nueva conducción acueducto										
	Grupo 2: Otros proyectos de reposición Distrito I, II, III, IV, y V y redes menores de 2"	1,765,000,000	802,272		NCB	Civil Work	Prior	May-08	Jun-08		
LICITACION No 2	Optimización infraestructura planta tratamiento	200,000,000	90,909		NCB	Civil Work	Prior	Feb-08	Mar-08		
LICITACION No 3	Reposición y optimización línea impulsión este. No. 1 y 2 y nueva línea impulsión estación 5	1,576,480,000	716,581		NCB	Civil Work	Prior	Feb-08	Apr-08		
LICITACION No 4	Nueva estación bombeo No. 5 y automatización estaciones bombeo (2 etapa)	938,000,000	426,363		NCB	Civil Work	Prior	Jan-08	Feb-08		
LICITACION No 5	Reposición colectores, tramos varios redes Coquivacoa y tramos barrio 20 de Julio	3,449,494,000	1,567,951		NCB	Civil Work	Prior	Feb-08	Mar-08		
LICITACION No 6	Proyectos de expansión	3,315,466,000	1,507,030		NCB	Civil Work	Prior	Apr-08	May-08		

**MAICAO: GOODS AND WORKS FOR WATER AND SANITATION, 2007
INTERNATIONAL COMPETITIVE BIDDING (ICB)**

Ref. No.	Contract (Description)	Estimated Cost (CO\$)	Estimated Cost (US \$)	Real Cost (CO\$)	Procure- ment Method	Category	Review by Bank (Prior / Post)	Expected Bid- Opening Date	Contract Date	Final Date Contract	Comments
LICITACION No 1	Total redes secundarias centro, Zona Comercial, El Bosque y Z.A.	11,100,899,751	5,045,863		ICB	Civil Work	Prior	Sep 07	Nov 07		

**MAICAO: GOODS AND WORKS FOR WATER AND SANITATION, 2007-2008
NATIONAL COMPETITIVE BIDDING (NCB)**

Ref. No.	Contract (Description)	Estimated Cost (CO\$)	Estimated Cost (US \$)	Real Cost (CO\$)	Procure- ment Method	Category	Review by Bank (Prior / Post)	Expected Bid- Opening Date	Contract Date	Final Date Contract	Comments
LICITACION No 1	Línea de conducción	5,040,857,114	2,291,298		NCB	Civil Work	Prior	Oct 07	Nov 07		
LICITACION No 2	Tanques de almacenamiento 1 Y 2	4,937,378,846	2,244,263		NCB	Civil Work	Prior	Jul 07	Aug 07		
LICITACION No 3	Redes matrices y secundarias	8,883,322,364	4,037,873		NCB	Civil Work	Prior	Feb 08	Mar 08		
LICITACION No 4	Total colector y redes secundarias sur oriental 1º etapa	5,454,878,082	2,479,490		NCB	Civil Work	Prior	May 08	Jun 08		

(b) ICB contracts for goods estimated to cost above \$300,000 and civil works above \$5,000,000 per contract and all direct contracting. All NCB contracts as well will be subject to prior review by the Bank.

2. Consulting Services

(a) List of consulting assignments with short-list of international firms.

1	2	3	4	5	6	7	8
Ref. No.	Description of Assignment	Estimated Cost	Estimated Cost (US \$)	Selection Method	Review by Bank (Prior / Post)	Expected Proposals Submission Date	Comments
PP No 1	DISEÑOS E INGENIERIA DETALLE NUEVOS PROYECTOS REDES URBANAS	50,000,000	22,727	CQS	T.D.R prior	Apr-07	
PP No 2	MODELAMIENTO HIDRAULICO URBANO ETAPA II, IV y V	780,381,000	354,718	QCBS	All prior	Apr-07	
PP No 3	SECTORIZACION URBANA ACUEDUCTO DISTRITO N	250,000,000	113,636	QCBS	All prior	May-07	

(b) Consultancy services estimated to cost above \$100,000 per contract, and contracts with individual consultants above \$50,000, as well as all single source selection of consultants (firms and individuals) will be subject to prior review by the Bank.

(c) Short lists composed entirely of national consultants: Short lists of consultants for services estimated to cost less than \$350,000 equivalent per contract, may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

Annex 9: Economic and Financial Analysis
**COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project**

Economic Analysis

1. Each of the sub-projects (meaning municipal-level investment plans) included in the Project is economically viable as shown in the cost benefit analysis, which has been supplemented by an enhanced sensitivity and risk analysis.

Methodology

2. Cost benefit, sensitivity, and risk analyses were undertaken to determine the economic viability of investment sub-projects and to review the impact on economic results when key variables change. The cost benefit analysis was done for each of the sub-projects potentially included in the Project. Cost benefit analysis was undertaken on the expected investment programs for all 15 municipalities, though only 10 municipalities have confirmed their interest in participating in the Project. Table 1 identifies the investment costs per municipality, though it is not certain as to whether all municipalities will participate.

Table 1. Investment Costs (thousand US\$)²⁸

	<i>Water</i>	<i>Sewerage</i>	<i>Total</i>
<i>Maicao</i>	15,217	34,257	49,474
<i>Riohacha</i>	7,945	26,637	34,582
<i>Barrancas</i>	655	4,908	5,563
<i>Distraccion</i>	1,087	782	1,869
<i>Villanueva</i>	2,161	6,706	8,867
<i>El Molino</i>	259	1,853	2,112
<i>Hato Nuevo</i>	842	2,097	2,939
<i>Fonseca</i>	3,387	3,853	7,240
<i>San Juan del Cesar</i>	3,783	5,873	9,656
<i>Urumita</i>	322	1,206	1,528
<i>Albania</i>	322	945	1,267
<i>Dibulla</i>	561	1,206	1,767
<i>La Jagua del Pilar</i>	265	279	544
<i>Manaure</i>	1,349	2,184	3,533
<i>Uribia</i>	1,742	1,227	2,969
<i>Subtotal</i>	<i>39,897</i>	<i>94,014</i>	<i>133,911</i>

3. Each sub-project was appraised from an economic perspective, in which the net benefits were calculated as the net incremental of costs and benefits under two situations: “with” and “without” Project. The “with” Project scenario assumed that all targets would be met, (i.e., coverage increases, service quality improves, and wastewater treated). The “without” Project scenario assumed that current situation remains and quality of the services continues unchanged,

²⁸ Investment costs for Component 1 as presented above are greater than those calculated under Project Costs as they include investment undertaken with non-Project resources, including US\$5 million of departmental resources for which works contracting was completed prior to Board presentation of the Loan.

(i.e., some households remain without service at all and are required to get water from other sources, such as water vendors, streams nearby; most of the households lack connection to sewerage network and have to discharge waste water on the roads; and current customers receive poor service and are forced to cope by building reservoirs, or getting water from other sources).

Incremental Costs and Benefits

4. The flow of costs and benefits associated with the “with” and “without” Project scenarios was projected during the lifetime of the Project (25 years), and were discounted using a discount rate of 12 percent which is estimated to be a proxy of Colombia’s opportunity cost of capital. *The economic viability* was assessed measuring the flows of costs and benefits in market prices of 2005. The flow of benefits was based on measures of consumer surplus; flow of costs consisted of investment and incremental operating and maintenance costs.

Estimation of Economic Benefits

5. The main benefits of the Project include: (i) increase in water and sewerage service coverage; (ii) reduction or elimination of rationing and intermittent water supplies; and (iii) reduction or elimination of water pollution levels. Economic benefits were assumed equal to the willingness to pay (WTP) for water supply and sewage disposal services. The WTP was estimated using a revealed preferences method through the use of a water services demand function.

Revealed Preferences Method

6. The economic model²⁹ was developed during preparation of the Colombian Water and Sanitation Sector Support Project (February 2005). The study estimated the economic benefits associated with improvements in water and sanitary services, and the unitary investment cost that equals the net present value of the benefits, during a Project lifetime of 25 years and using a 12% discount rate. For this evaluation, the economic benefits obtained in that study were applied, as it is explained in detail below.

7. The revealed preference method was used through a demand function, which explains the relation between water consumption and a series of social and economic variables of the household, and some characteristics of the service supplied.

8. The demand function was estimated using the “Quality of Life Survey” *Encuesta de Calidad de Vida* (ECV) completed by the Colombian Statistic Department (DANE) in 1997, and updated by the consulting firm to 2003 prices. The survey was done in 58 municipalities of the country and incorporated 2,469 households; the sample included different markets and with them different price structures, considerable group of socioeconomic characteristics, and other technical and environmental variables. In the modeling process, important differences in the mean and the variances of income were found between municipalities below and above 1,000 meters above sea level. As a result, two demand functions were specified at a national level, one for municipalities located at an altitude of up to 1,000 meters above sea level and one for municipalities located above the same attitude. Such a difference effectively incorporates a temperature variable into the model. Different dummy variables were introduced to correct the heterogeneity of the observations, obtaining homogeneity in consumption for each of the

²⁹ Pablo Roda. *Estimación de Indicadores Económicos a partir de los Criterios de Elegibilidad en los Proyectos de Acueducto y Alcantarillado que Cursan por Ventanilla Unica*. Bogota, Colombia. Julio 2004.

observational units (Atlantic, Central, Orinoquia, Pacific, Oriental regions, Antioquia, and Bogota).

9. For municipalities below 1,000 meters altitude, the demand function was:

$$(1) \quad C = e^{3,59} \times N^{0,27} \times Y^{0,06} \times P^{-0,26}$$

$$(14.8024) \quad (7.0985) \quad (3.5479) \quad (-6.8895)$$

Where:

C : Metered water consumption in m³ per month

N : Household size

Y : Monthly income, calculated as the residual income after subtracting the fixed costs for water and sewerage.

P : Instrumental variable that represents the marginal price of the services, calculated as the arithmetic mean of the tariffs for the two highest blocks of consumption (known as complementary and luxurious).

10. This specification was made through a sample of 989 households and the coefficients of all explanatory variables were significant at a 99% level of confidence (the values of *t statistic* of the coefficients are shown in parenthesis), and no statistically significant collineality was present.

11. For all other municipalities the following function was obtained:

$$(2) \quad C = e^{3,99} \times N^{0,33} \times Y^{0,05} \times P^{-0,33} \times e_{Reg1}^{-0,21} \times e_{Reg2}^{-0,18}$$

$$(21.602) \quad (10.845) \quad (4.428) \quad (-11.966) \quad (-2.737) \quad (-4.982)$$

Where:

C : Metered water consumption in m³ per month

N : Household size

Y : Monthly income, calculated as the residual income after subtracting the fixed costs for water and sewerage.

P : Instrumental variable that represents the marginal price of the services, calculated as the arithmetic mean of the tariffs for the two highest blocks of consumption (known as complementary and luxurious).

e_{Reg1}: Dummy for the Oriental region, being (1) if the municipality is from the region and (0) if it is from another region.

e_{Reg2}: Dummy for the Antioquia Department, being (1) if the municipality is from the region and (0) if it is from another region.

12. This function was specified based on a sample size of 1,480 households and again all explanatory variables were significant at a 99% level of confidence (the values of the *t statistic* of the coefficients are shown in parentheses), and no statistically significant collineality was present.

13. Having these demand functions, the economic model was built with the following assumptions: (i) size of the household: 4.5; (ii) monthly household income: CO\$ 525,000; (iii) fixed charge (does not include the variable charge per cubic meter billed) for water and sanitation

per month: CO\$ 10,000; and (iv) monthly income without fixed charge for water and sanitation per month: CO\$ 515,000.

14. For this evaluation the demand function obtained for municipalities with altitude lower than 1,000 meters above sea level was used, since all the municipalities in la Guajira are at sea level. This demand function was then reduced to the following expression:

$$C = k \times P^{\beta} = 154.3288 \times P^{-0.257420}$$

Where:

C : Metered water consumption in m^3 per month

P : Tariff per cubic meter

β : Price elasticity.

15. The consumer surplus for each household was represented by the area under the demand curve defined for the range between the consumption level “with” and “without” the Project, and the savings if as a result of the Project the consumers will substitute the use of more expensive sources. The analysis was made for two groups of households: (i) currently connected households that benefit with the Project due to service improvement, such as better water and sewerage service quality, reduction of rationing, or reduction in water pollution; and (ii) households currently with no access to piped water or to sewerage network that will get connected with the Project. This group will be the main beneficiary as they will be able to substitute alternative (more expensive) sources for reliable piped water. They will increase consumption, and will have access to sanitation services, improving their quality of life.

Estimation of Benefit per Household Currently Connected

16. The consumer surplus for this group of customers was estimated as:

$$E_1 = \left[\frac{\left(\frac{1}{k} \right)^{\beta}}{\frac{1}{\beta} + 1} \right] \times \left[c_{wp}^{1+\frac{1}{\beta}} - c_{w/op}^{1+\frac{1}{\beta}} \right] - p_{wp} \times [c_{cp} - c_{w/op}]$$

Where

- E_1 corresponds to the consumer surplus for the first group of households, who are those that will benefit with service improvement
- wp and w/op represent with and without Project situations
- k and β are the parameters of demand function, presented above.
- P is the tariff per cubic meter

17. This group of customers would receive better service once the Project is implemented. The benefits would come from the elimination or reduction of rationing, improvement in water quality, and improvement in sanitation services. The benefits depend on the quality of service currently received and the improvements to be achieved. Table 2 shows some of the estimated benefits, under different scenarios of current consumption, when assuming a tariff per cubic meter of CO\$ 1000, a monthly consumption of 20 m^3 per hh when Project is implemented.

<i>Table 2. Benefit per household currently connected to the service</i>	
<i>Consumption w/o Project per hh (m³ /hh-month)</i>	<i>Net benefit per hh-month (CO\$ 2005/hh-month)</i>
10	21,776
11	15,307
12	10,645
13	7,257
14	4,793
15	3,017
16	1,761
17	907
18	370
19	84
20	

Benefit per Household Without Access to Piped Water and Sewerage Services

18. The consumer surplus for the second group, namely those who will have access to piped water and sewerage network, was estimated as follows:

$$E_2 = 138897 - 303.29 \times P^{0.6652}$$

Where

- E_2 corresponds to the consumer surplus for the second group households, which are those who will have access to the services
- P is the tariff per cubic meter

19. When both the demand function for municipalities under 1000 meters above sea level and the customer surplus equation are applied, the following results are obtained, assuming: a cost per cubic meter without Project of CO\$ 10,000 and consumption per capita before connection of about 65 lpd³⁰. With the Project, beneficiaries will increase consumption and will pay a lower tariff. Hence, net benefit depends on the price per cubic meter provided by the utility and consumption to be achieved once the Project is implemented. Table 3 shows the consumer surplus obtained under different price scenarios. For tariffs between CO\$ 1,000 to CO\$ 3,400 the net benefit for the consumer would be between CO\$ 120,000 and CO\$ 79,000 per month.

³⁰ These assumptions were taken from the economic model used in this analysis

<i>Table 3. Benefits per new customer connected to the services</i>		
<i>Price per cubic meter (COP/m³)</i>	<i>Consumption per hh per month (m³ /hh/month)</i>	<i>Customer surplus (COP/hh/month) 2005 prices</i>
1000	25.9	120,261
1200	24.7	115,985
1400	23.8	111,942
1600	22.9	108,089
1800	22.3	104,394
2000	21.7	100,834
2200	21.1	97,392
2400	20.7	94,053
2600	20.2	90,806
2800	19.9	87,642
3000	19.5	84,553
3200	19.2	81,532
3400	18.9	78,573

19. For each municipality the benefit was estimated per each group of households using the actual price per cubic meter.

Results of Economic Evaluation

20. The results show that all sub-projects are economically viable with returns variable from 16% in Villanueva to 32% in Urumita y Uribia. The overall Project has net benefits of US\$ 54 million, and an economic rate of return of 19%.

<i>Table 4. Economic Evaluation Results</i>				
	<i>Present Value of Flows (Thousand of US\$)</i>			<i>IRR</i>
	<i>Benefits</i>	<i>Costs Inv and O&M</i>	<i>Net Benefits</i>	
<i>Maicao</i>	74,035	59,840	14,195	17%
<i>Riohacha</i>	46,731	35,128	11,602	18%
<i>Barrancas</i>	8,598	6,392	2,206	18%
<i>Distraccion</i>	2,949	2,111	839	22%
<i>Villanueva</i>	11,867	10,176	1,691	16%
<i>El Molino</i>	3,067	2,432	635	19%
<i>Hato Nuevo</i>	4,451	3,144	1,308	22%
<i>Fonseca</i>	14,703	8,338	6,364	25%
<i>San Juan del Cesar</i>	16,625	8,682	7,943	31%
<i>Urumita</i>	3,348	1,760	1,588	32%
<i>Albania</i>	2,510	1,459	1,051	27%
<i>Dibulla</i>	2,758	2,035	723	23%
<i>La Jagua del Pilar</i>	854	627	227	24%
<i>Manaure</i>	6,286	4,069	2,217	25%
<i>Uribia</i>	5,352	3,419	1,932	32%
<i>TOTAL</i>	204,134	149,612	54,522	19%

Sensitivity Analysis

21. A sensitivity analysis was conducted to assess the impact on economic viability when a single variable changed keeping everything else constant. The chosen variables were: investment and operating cost increases and benefit decrease for both new and current customers.


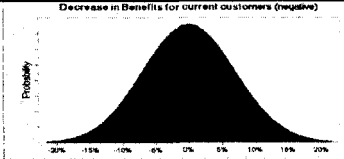
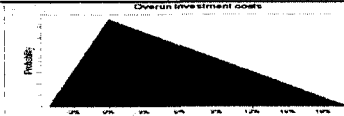
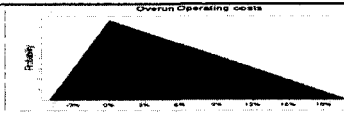
22. The variables with more impact on economic results are investment costs overrun, and decrease of benefit for new customers. The other two variables, O&M costs overrun and decrease on benefits for current customers have very low impact, as Table 5 shows. The investment costs convey a medium risk for 2 of the subprojects: Villanueva, and El Molino, where cost higher than 17% and 26% respectively would yield negative economic returns. For the other thirteen projects, investment costs overrun have low impacts, since costs could increase up to 35% (Barrancas, Dibulla, y Jagua del Pilar) or more (for the others) and remain viable economically. Benefits for new customers are beyond management control and convey from moderate to low risk for the sub-projects. The highest impact is on Villanueva subproject, where decreases higher than 16% would make the project non viable. In Maicao and el Molino, benefit could decrease up to 23% to maintain positive returns. For all other projects the benefits could decrease 30% or more and still show profits.

<i>Table 5. Results of the sensitivity analysis</i>				
	<i>Break-even Point for Economic viability</i>			
	<i>Costs Overrun</i>		<i>Decrease benefit</i>	
	<i>Investment</i>	<i>O&M</i>	<i>New Customers</i>	<i>Current Customers</i>
<i>Maicao</i>	37%	65%	-23%	-85%
<i>Riohacha</i>	45%	99%	-41%	-65%
<i>Barrancas</i>	35%	103%	-30%	-125%
<i>Distraccion</i>	40%	119%	-32%	-223%
<i>Villanueva</i>	17%	50%	-16%	-124%
<i>El Molino</i>	26%	78%	-24%	-144%
<i>Hato Nuevo</i>	42%	125%	-33%	-267%
<i>Fonseca</i>	76%	229%	-49%	-367%
<i>San Juan del Cesar</i>	91%	131%	-53%	-506%
<i>Urumita</i>	90%	270%	-63%	-191%
<i>Albania</i>	72%	216%	-56%	-169%
<i>Dibulla</i>	36%	106%	-30%	-201%
<i>La Jagua del Pilar</i>	36%	109%	-29%	-397%
<i>Manaure</i>	54%	163%	-39%	-380%
<i>Uribia</i>	57%	169%	-40%	-382%
<i>TOTAL</i>	46%	110%	-33%	-132%

Risk Analysis

23. To enhance the accuracy of the economic analysis, the uncertainty of the real world is assessed by using the Crystal Ball software. This software measures the risks and their impact on the economic situation by modeling a probable distribution for each risk variable and the resulting outcome. Based on a simulation of 1,000 trials, the model recalculates the results of the economic results by changing the major variables all at the same time. The chosen variables are the same

used for the sensitivity analysis with the following distributions of probabilities and specifications (Table 6.)

<i>Table 6. Risk Variables and Assumed Distribution of Probabilities</i>		
<i>Variable</i>	<i>Distribution</i>	<i>Parameters</i>
<i>Variations on benefits of new customers</i>	<i>Normal</i>	 <p>Mean 0% Standard Deviation 10%</p>
<i>Variations on benefits of Current customers</i>	<i>Normal</i>	 <p>Mean 0% Standard Deviation 10%</p>
<i>Investment Cost Overrun</i>	<i>Triangular</i>	 <p>Minimum -5% Likeliest 0% Maximum 30%</p>
<i>Operating Cost Overrun</i>	<i>Triangular</i>	 <p>Minimum -5% Likeliest 0% Maximum 30%</p>

24. The results confirm the soundness of the Project (Table 7). The expected economic return, under uncertainty, is US\$ 40 million with 98% probability of having positive results, which is very reassuring. All subprojects show a probability higher than 89 % of having positive economic returns, but Villanueva whose probability of having profits is 66%.

<i>Table 7. Results of the Risk Analysis</i>		
	<i>Expected Mean of Net Economic Benefits (Thousand US\$)</i>	<i>Probability of having positive economic returns (%)</i>
<i>Maicao</i>	9,127	89%
<i>Riohacha</i>	8,606	98%
<i>Barrancas</i>	1,473	95%
<i>Distraccion</i>	597	97%
<i>Villanueva</i>	529	66%
<i>El Molino</i>	356	83%
<i>Hato Nuevo</i>	947	97%
<i>Fonseca</i>	5,403	100%
<i>San Juan del Cesar</i>	6,940	100%
<i>Urumita</i>	1,384	100%
<i>Albania</i>	882	100%
<i>Dibulla</i>	490	95%
<i>La Jagua del Pilar</i>	150	95%
<i>Manaure</i>	1,750	100%
<i>Uribia</i>	1,539	97%
<i>Subtotal</i>	40,180	98%

Financial Analysis

25. The proposed Project is financially viable when subsidies from Departmental Government of La Guajira are included and some efficiency gains are reached, as shown by a detailed financial analysis, enhanced by a sensitivity analysis.

Objective

26. The objective of the financial analysis was to assess the financial structure, efficiency, and viability of the three entities currently under private sector management (including the multimunicipal utility in the south of the Department), using financial ratios and measurements against relevant industry comparators. The analysis also discussed the appropriateness of tariffs in relation to long-run marginal cost and O&M costs and the effect of pricing and cost recovery policies generally on the financial viability of the entity. The financial covenants sought as conditions of Bank financing were also described and justified and the extent to which the entity could be expected to comply with them were discussed.

Methodology

27. The financial analysis was carried out for the three private utilities with existing concessions in the water and sanitation sectors in La Guajira. The analysis was divided in four sections: (i) analysis of historical performance of the concessions; (ii) comparison between current tariffs and economic costs; (iii) financial projections including the Project and estimating the required subsidies from a higher level of government; and (iv) a sensitivity analysis to measure the impact on financial results with changes in some key variables.

28. The analysis was prepared taking into account that the operators were private entities and therefore needed adequate returns on their investment. A required government subsidy to make the financial situation viable was also estimated. The returns were calculated for the life time of the concessions and then evaluated related to the risks taken (the cost of capital). To measure the returns, four indicators were used (the first two as measures of the returns earned by the operators, whilst the last two as measures of the profitability of the company overall, independent of the financing structure):

- (i) *Shareholders' internal rate of return (IRR)* corresponds to the net financial return earned from dividends by shareholders on their equity investment in the company. It is calculated as the return that makes the net present value (NPV) of the flow of dividends distributed by the company to its shareholders, less the flow of capital injections made by them into the company equal to zero.
- (ii) *Return on equity (RoE)* corresponds to the annual after tax return the concession is earning on its equity capital. It is calculated as the net income divided by the shareholders' equity investment.
- (iii) *Company's IRR* corresponds to the net financial return generated by the concession in the form of cash flows available to remunerate its various financing sources (including debt and equity). It is calculated as the rate that makes the NPV of the financial flows generated by the company before financing equal to zero³¹.
- (iv) *Return on capital employed (RoCE)* corresponds to the annual net operating profitability of the concession, measuring its ability to service its overall long-term financing structure. It equals to profits before interests divided by the difference between total assets and current liabilities.

29. The shareholders IRR and the RoE are measured over equity capital and hence have to be higher than the cost of equity (C_E), which measures the return investors require on equity investments given the level of risk of such investments. The company's IRR and the RoCE are measured on the company's overall capital structure, and must be at least equal to the weighted average cost of capital (WACC), which is the overall required return on the firm as a whole. The WACC weighs each category of capital (debt and equity) proportionately³². The C_E and the WACC varies depending on the country and sector of investment, reflecting the fact that market risks also vary across countries and sectors.

30. For this analysis the cost of equity (C_E) and the weighted average cost of capital (WACC) were taken from calculations done by Colombian Regulatory Commission for Water and Sanitation Services (CRA) in January 2005³³:

³¹ The net financial flows generated by a concession are calculated as its earnings before interest, taxes, depreciation and amortization (EBITDA), minus the investments, increases in working capital, and taxes financed by these flows

³² WACC is the average of the cost of each source of financing (debt or equity) weighted by their respective usage in the given situation. It is calculated by multiplying the cost of each capital component by its proportional weighting and then summing. That is,

$$WACC = C_E \frac{E}{E + D} + C_D(1 - t_c) \frac{D}{E + D} ; C_E \text{ is the opportunity cost of equity; } C_D \text{ is the nominal cost of debt; } t_c$$

is the corporate income tax; E is the degree of capitalization of the firm or its equity level; D is the market value of its net debt; E+D is the value of the firm's assets.

³³ Resolucion CRA No 312 de 2005, January 14, 2005.

Cost of Equity (C_E):	
<i>For debt structure: 30% debt and 70% equity:</i>	
If figures are in US\$	14.14%
If figures are in nominal CO\$	16.90%
If figures are in constant CO\$	11.47%
<i>For debt structure: 40% debt and 60% equity:</i>	
If figures are in US\$	14.54%
If figures are in nominal CO\$	17.31%
If figures are in constant CO\$	11.86%
WACC	
<i>For more than 25,000 connections in 2004</i>	Between 13.32% and 13.92%
<i>For less than 25,000 connections in 2004</i>	Between 14.24% and 14.58%

31. This analysis was carried out in US\$ and the number of customers in 2005 for each utility was less than 25,000. Therefore the reference values used were: C_E between 14.14% and 14.54% depending on debt structure; and for WACC between 14.24% and 14.58%.

Current Financial Situation

32. Three private entities manage and operate water and sewerage services in nine of the sixteen municipalities of La Guajira, where 90% of urban population lives. *Aguas de la Peninsula* is the company that operates in Maicao; *Aguas de la Guajira* operates in Riohacha; and *Aguas del Sur* operates in Barrancas, El Molino, Distraccion, Villanueva, Hato Nuevo, Fonseca, and San Juan del Cesar. The contracts award these companies the management, operation, improvement, and expansion of the services, according to established targets. Investments are partly financed by the operator while most of the funds come from the Government at the National, Department, or Municipal level. The municipality keeps the assets' property and the operator is in charge of their maintenance and rehabilitation during the concession period.

33. The financial situation was analyzed based on the audited financial statements for the previous years with the exception of 2005, which was estimated based on preliminary statements.

Aguas de la Peninsula (Maicao)

34. The contract was signed on December 2000 for a period of 30 years and the company started operations in April 2001. The contract agreement included an emergency investment plan for the first three years in order to solve priority problems and start operation in acceptable conditions. This plan was to be financed mainly by the government with some funding from the operator. During the first two years the operator had troubles to fulfill the expected targets due to: (i) the municipality's incompilance with the works previously agreed on, regarding improvement or construction of wells, treatment plant, pipelines, and reservoirs; (ii) some legal paperwork required for transfer of National funds were not ready, such as environmental license, municipal urban plan, and legal right to put pipelines in the ground; and (iii) the information given to the operator regarding actual service conditions was not accurate. All these obstacles made necessary an adjustment of the contract, in which targets were redefined. The amendment was signed on April 2003.

35. *Aguas de la Peninsula* has accomplished important progress in providing the service. When the concession was awarded, no connection was getting water from a tap; by the end of 2005, 57% of households were getting water during 7 hours per day. Some households built

reservoirs to have continuous water all day long. Before concession started, population had to buy water from vendors at prices as high as US\$ 4 per cubic meter. In sewerage, the service had generally improved for all. Table 8 shows some operational indicators for the last five years.

Table 8. Operational Indicators Aguas de la Peninsula

	2001	2002	2003	2004	2005
<i>Water Service</i>					
Connections	7,838	11,138	11,138	11,717	11,888
Coverage	37%	54%	54%	57%	57%
Continuity of the service	0%	29%	29%	29%	29%
Compliance with Water quality regulation	No	Yes	Yes	Yes	Yes
Metering	0%	0%	0%	0%	20%
<i>Sewerage</i>					
Connections	4,808	5,000	5,300	5,400	5,500
Coverage	23%	24%	25%	26%	26%

36. The investment during the last five years has been of US\$ 24 million; 41% of it has been funded by the Department of La Guajira, 29% by the National Government, 12% by the Municipality, 12% by CORPOGUAJIRA, and 6% by the operator (Table 9).

Table 9. Total Investment Aguas de la Peninsula

(million US\$)	Total	National Government	Department	Municipality	Corpo-guajira	Operator
<i>Investment</i>						
Water	10,588	2,964	5,147	2,098	-	378
Sewerage	11,518	3,845	3,867	848	2,953	5
Design, supervision	2,182	215	946	67	-	954
<i>Total</i>	24,288	7,025	9,960	3,013	2,953	1,337
<i>Percentages</i>						
Water	100%	28.0%	48.6%	19.8%	0.0%	3.6%
Sewerage	100%	33.4%	33.6%	7.4%	25.6%	0.0%
Design, supervision	100%	9.9%	43.4%	3.1%	0.0%	43.7%
<i>Total</i>	100%	28.9%	41.0%	12.4%	12.2%	5.5%

37. Financial indicators show a poor financial situation, though they present some improvement. Operational income has been negative during the whole period. Only when municipal transfers are included, the balance becomes positive, showing slight net income of less than 1% of revenues. Expenses have exceeded revenues, even when depreciation is excluded, for more than 20% in the period. The account receivables correspond to about one year of billing. Estimated unaccounted-for water is about 60% and there are no micro-meters installed.

38. To date, the operator has not received any return on this operation. The measures of profitability are negative in the first four years of the concession both for the operator and for the company. As it was expected in this type of concession, profit is predictable for the long run and the contract period is long enough to reward the operator.

39. Other indicators appear to be at acceptable levels, such as liquidity ratio, and debt indicators. However the high level of liquidity ratio is not a result of good performance but rather the inefficiency of collecting accounts receivables. Debt indicators also show results within the recommended limits; however, liabilities consist of more than 80% of current liabilities, and not mainly to suppliers but to government, shareholders, and others (Table 10. Financial Indicators Aguas de la Peninsula 2002-2005).

Table 10. Financial Indicators. Aguas de la Peninsula 2002-2005

	2002	2003	2004	2005
Operating Ratio (incl. depreciations)	1.81	2.09	1.39	1.48
Working Ratio (excl. depreciations)	1.81	1.75	1.36	1.20
Accounts Receivable Comparator (months)	7	12	13	12
Labor productivity	-	5.5	4.9	4.4
Liquidity Ratio	6.6	1.9	2.4	3.3
Debt as % of equity	0.10	0.43	0.68	0.53
Liabilities/Assets	0.09	0.30	0.41	0.34
liabilities/Operating Income	0.20	0.81	0.67	0.41

Aguas de la Guajira (Riohacha)

40. The contract was signed in 2001 for a period of 20 years. The municipality is a shareholder of the company with 20% participation on its capital. The results are similar to the ones in Maicao, that is, the operational indicators show an improvement as it is presented in table 3, while the financial results show there is an ample room for improvement (Table 11). Households are receiving water on their taps during 12 hours per day, compared with 6 when concession started. Currently sewerage coverage is approximately 64%.

Table 11. Operational Indicators Aguas de la Guajira

	2001	2002	2003	2004	2005
<i>Water Service</i>					
Connections	13,091	13,318	13,550	13,786	13,979
Continuity of the service (hours per day)	6	6	8	10	12
Compliance with Water quality regulation	No	No	No	Yes	Yes
UFW	80%	80%	80%	70%	67%
Metering	0%	0%	0%	0%	24%
<i>Sewerage</i>					
Connections	9,636	9,803	9,974	10,782	11,614
Waste water treatment	0%	0%	0%	0%	0%

41. The investment has been of \$US 6.5 million, of which 29% has been funded by the National Government, 31% by the Department, 19% by the Municipality, 12% by CORPOGUAJIRA, and 9% by the operator.

42. The financial indicators show a poor financial situation. Operating expenses have exceeded billed revenues in the last three years; the revenue collection rate is around 30% with account receivables of 10 months of billing. The liquidity ratio is higher than one due to the high account receivables. The debt indicators are within reasonable limits.

Table 12. Financial Indicators. Aguas de la Guajira 2003-2005

	2003	2004	2005
<i>Operating Ratio (incl. depreciations)</i>	1.02	1.58	1.34
<i>Working Ratio (excl. depreciations)</i>	0.71	1.03	0.84
<i>Accounts Receivable Comparator (months)</i>	9.54	12.57	10.06
<i>Liquidity Ratio</i>	2.68	3.26	5.16
<i>Debt as % of equity</i>	0.42	0.37	0.24
<i>Liabilities/Assets</i>	0.30	0.27	0.20
<i>liabilities/Operating Income</i>	0.32	0.37	0.20

Aguas del Sur

43. Aguas del Sur started operation in 2001 in the municipalities of Barrancas, Distraccion, El Molino, and Villanueva; in 2006 the municipalities of Hotonuevo, Fonseca, and San Juan del Cesar were incorporated. The operator is the same that provides the service in Maicao (Aguas de la Peninsula).

44. The financial situation is weak, as the financial statements for the last three years show with operating expenses almost twice the revenue billed, revenue collection rate close to 20%, and accounts receivable of 11 months of billing. Debt indicators do not show a sound situation either. Liability is four times equity and is close to the annual billing revenue. 80% of liability consists of current debt.

Table 13. Financial Indicators. Aguas del Sur 2003-2005

	2003	2004	2005
<i>Operating Ratio (incl. depreciations)</i>	2.15	1.67	1.92
<i>Working Ratio (excl. depreciations)</i>	2.15	1.67	1.92
<i>Accounts Receivable Comparator (months)</i>	7.1	13.8	11
<i>Liquidity Ratio</i>	0.78	1.75	3.12
<i>Debt as % of equity</i>	(6.87)	2.40	4.41
<i>Liabilities/Assets</i>	1.17	0.71	0.81
<i>liabilities/Operating Income</i>	1.19	1.01	1.01

45. All private entities with concession of the services have an ample room for improvement and as a result, the Project will address each of the identified weakness and impose to these entities monitoring indicators and targets to strengthen them. The following indicators are selected as monitor Project indicators: (i) account receivables comparator, or collection revenue rate; (ii) micro-metering and unaccounted-for water; and (iii) continuity of water supply. The reasons for this selection are basically that they reflect the main weakness of current performance, and that they have high impact on financial results

Current Tariffs and Economic Cost

46. Table 14 shows current tariffs, which were established in the concession contract as the target tariffs to be reached gradually. In 2005, they were fully applied.

Table 14. Current Tariffs (2005)

	Aguas de la Peninsula (Maicao)		Aguas de la Guajira (Riohacha)		Aguas del Sur	
	Water	Sewerage	Water	Sewerage	Water	Sewerage
	US\$/m ³	US\$/m ³	US\$/m ³	US\$/m ³	US\$/m ³	US\$/m ³
Strata 1	0.41	0.16	0.15	0.20	0.41	0.12
Strata 2	0.47	0.19	0.15	0.21	0.44	0.13
Strata 3	0.65	0.26	0.20	0.28	0.47	0.14
Strata 4	0.74	0.30	0.20	0.32	0.47	0.14
Strata 5	n.a	n.a	0.26	0.37	0.57	0.16
Strata 6	n.a	n.a	0.26	0.37	0.57	0.16
Average Residential	0.47	0.22	0.17	0.25	0.44	0.12
Commercial	0.89	0.36	0.26	0.37	0.51	0.14
Public	0.74	0.30	0.19	0.31	0.42	0.12
Average Non Residential	0.88	0.36	0.24	0.35	0.41	0.12
Average Total	0.50	0.25	0.18	0.27	0.41	0.12

47. When tariffs are compared with economic cost, it is found that water tariffs cover between from 67% of the cost in Aguas de la Guajira to 74% in Aguas de la Peninsula. In all cases they cover operating expenses and there is a remnant to cover investment between 20% and 40%. In sewerage, tariffs are below 38% of costs in all the companies, and operating costs are covered in all; there is a remnant of 24% and 15% to cover investment in Aguas de la Guajira y Aguas de la Peninsula respectively (Table 15).

Table 15. Economic cost and recovery cost through tariffs

	Economic Cost (US\$/m ³)			Tariffs (US\$/m ³)		Cost Recovery (%)	
	Investment	O&M	Total			Tariff/Cost	Investment	O&M
Aguas de la Peninsula							
Water	0.28	0.38	0.66	0.50	74%	40%	100%
Sanitation	0.71	0.13	0.84	0.24	29%	15%	100%
Aguas de la Guajira							
Water	0.14	0.13	0.27	0.18	67%	37%	100%
Sanitation	0.60	0.13	0.73	0.27	38%	24%	100%
Aguas del Sur							
Water	0.24	0.37	0.61	0.41	68%	20%	100%
Sanitation	0.60	0.12	0.72	0.12	17%	0%	100%

48. The economic cost was calculated as the long run average cost (LRAC), which corresponded to the ratio of the sum of the present value of investment and O&M costs to the sum of the present value of the volume of water. The LRAC was used instead of the Long Run Incremental Cost (LRAIC) given that investment aims not only to expand the service but also to cover all lags that current service has, such as, improvement of quality of water, replacement of many of current pipelines, reservoirs, and pump stations, etc. Since the calculation is based on water production, an adjustment for water losses was made to get the results in volume of water effectively consumed. This adjustment was done assuming losses of 30% and not current levels of about 60%.

49. The following investment plan and associated targets were used for the calculation of economic cost.

Table 16. Investment Plans and associated Targets.

	<i>Aguas de la Peninsula</i>	<i>Aguas de la Guajira</i>	<i>Aguas del Sur</i>
<i>Investments (000 US\$)</i>			
<i>Water Investments</i>	15,217	7,945	12,174
<i>Sewage collection and treatment</i>	34,257	26,637	26,072
<i>Total Investment</i>	49,474	34,582	38,246
<i>Targets to be reached</i>			
<i>Water Coverage</i>	95%	95%	95%
<i>% of Networked water treated</i>	100%	100%	100%
<i>Sewerage Coverage</i>	80%	80%	83%
<i>% of networked sewage treated</i>	100%	100%	100%

Financial Projections

50. Financial projection of the each utility was for the period of the concession. In all cases, projections were built including: Project investment, and its associated targets. Additionally, the current weakness are addressed in the projection, assuming some improvement is reached, especially with the collection revenue rate, unaccounted for water, and efficiency gains in the operation. Accounts receivables are expected to attain acceptable values such as about 3 months of billing, unaccounted for water 35%, and efficiency gains of at least 10% of operating costs. General assumptions for projection are summarized in Table 17.

Table 17. General Guidelines for Assumptions for Projections

Domestic Inflation	2007: 4.5%; 2008: 3.5%; 2009 and on 3.0%
Exchange Rate	Depreciation rate same as inflation rate
Revenue:	
<ul style="list-style-type: none"> Tariff Number of customers Volume billed 	<ul style="list-style-type: none"> <i>Aguas de la Peninsula</i>. No real increase in tariffs, just adjustment per inflation <i>Aguas de la Guajira</i>. Water tariffs increases 20% in 2007, 2008, and 2009. Increasing from current levels of US\$ 0.15/m³ to US\$ 0.27/m³ <i>Aguas del Sur</i>: Increase in sewerage tariff 10% per year in 2007, 2008, and 2009 to reach US\$ 0.17/m³. <p>According to concession contract</p> <ul style="list-style-type: none"> <i>Aguas de la Peninsula</i>. Increase with service improvement from 52 lpd to 125 lpd,. Revenue collection rate goes from 17% to 70% in 2008 <i>Aguas de la Guajira</i>. 142 lpd. Revenue collection rate improves from current level of 17% to 71% <i>Aguas del Sur</i>: 124 lpd, Revenue collection rate reaches 84% by 2011
Personnel Costs:	
<ul style="list-style-type: none"> Number of Employees Salary per Employee 	<ul style="list-style-type: none"> <i>Aguas de la Peninsula</i>. Labor productivity increases from current 4.4 employees per 1000 water connections, to 3.2. <i>Aguas de la Guajira</i>. Labor productivity remains at its current level of 2.9 employees per 1,000 connections <i>Aguas del Sur</i>. Labor productivity improves 10% in 2007 and 2008 (from 4.85 employees per 1,000 connections to 3.5) <p>Maintain current level in real terms (adjusted by inflation)</p>
Operation and Maintenance Costs:	
<ul style="list-style-type: none"> Unit cost of electricity Operating costs 	<p>Based on 2005 data.</p> <ul style="list-style-type: none"> <i>Aguas de la Peninsula</i> decreases 5% per year <i>Aguas del Sur</i>. Improves by 10% per year
<ul style="list-style-type: none"> Water Production Volume 	Based on estimated demand and water losses
Account Receivable Comparator	<ul style="list-style-type: none"> <i>Aguas de la Peninsula</i> Improves from current level of about 11 months to 3.7 by 2009. <i>Aguas de la Guajira</i>. It improves from 10.2 months to 3.5 by 2008. <i>Aguas del Sur</i>. It goes from 11 months to 3 months by 2009
Unaccounted for water	<ul style="list-style-type: none"> <i>Aguas de la Peninsula</i>. UFW decreases from 60% to 35% by 2012 <i>Aguas de la Guajira</i>. UFW decreases from current level of 70% to 45% by 2011 <i>Aguas del Sur</i>. UFW decreases from 60% to 35% by 2011. Revenue collection rate reaches 84% by 2011According to targets established on concession contract
Transfers from Law 715	<ul style="list-style-type: none"> They are not needed after 2017
Income Tax	35 % on profit
Investment Programs	Based on investment projects
Debt Financing	Calculated based on financial requirements, after discounting subsidy from the government and capitalization from operator.

51. The financing plan for investment included in the projection is the following (Table 18):

Table 18. Financing Plan for Investment Project.

	<i>Aguas de la Peninsula</i>	<i>Aguas de la Guajira</i>	<i>Aguas del Sur</i>	<i>Total</i>
<i>Financing Sources (000 US\$)</i>				
<i>Subsidy from Department</i>	42,248	27,467	30,596	100,311
<i>Operator</i>	2,864	3,433	3,825	10,122
<i>Internal Sources and Law 715</i>	4,362	3,681	3,825	11,868
<i>Total</i>	49,474	34,582	38,246	122,301
<i>Financing Sources (%)</i>				
<i>Subsidy from Department</i>	85%	80%	80%	82%
<i>Operator</i>	7%	10%	10%	8%
<i>Internal Sources and Law 715</i>	8%	10%	10%	10%
<i>Total</i>	100%	100%	100%	100%

Results

52. When efficiency gains are reached, the financial situation in all utilities looks relatively sound.

Results for the Operators:

- The shareholder's IRR obtained is between 16% and 22%, which is higher to CE for Colombia of 14%, which means that the operators would get higher returns than those commensurate to the risk taken.
- The Return on Equity, without subsidies, is between 17% and 22% higher than CE of 14% which means that the concession returns a post-tax profitability on its equity capital superior to that of alternative investment of similar risk. For this calculation two situation were considered, with and without subsidies from the government. For the first one, the results are lower than CE, meaning that profitability is inferior to alternative investment of similar risk. For the second one is much higher. These results show that for the operator the results worth the risk taken, while for the government its capital is not rewarded financially as it had been in other sector of similar risk.

Results for the Project:

- When the Project IRR is higher than WACC, means that concession has generated positive net flows, as it is the case in all utilities studied.
- When RoCE obtained is between 16% and 29%, which is higher than WACC for Colombia of 14%, this means that the concession's net operating profitability exceeds the level necessary to adequately service its debt and equity. The calculation was done with and without including the government subsidies in the equity. For the first one the RoCE is lower to WACC, meaning that returns for the government is not enough to cover adequately the debt service, but when it is excluded it surpassed WACC.

Table 19. Measures of Effective Returns

	Reference Rates	Aguas de la Peninsula	Aguas de la Guajira	Aguas del Sur
<i>Returns Earned by Equity Investors</i>	<i>CE</i>			
Shareholder's IRR	14.1% - 14.5%	22%	22%	16%
Return on Equity (RoE):				
• Without government subsidies	14.1% - 14.5%	22%	25%	17%
• With government subsidies	14.1% - 14.5%	2%	3%	7%
<i>Profitability of the Concession Overall</i>	<i>WACC</i>			
Project IRR	14.2%-14.5%	21%	20%	17%
Return on Capital Employed (RoCE):				
• Without government subsidies	14.2%-14.5%	20%	23%	14%
• With government subsidies	14.2%-14.5%	1%	2%	3%

53. Currently, there is a discussion in Colombia about the inclusion of subsidy and its associated investment into the financial statements. The point of view in favor of excluding them argues that subsidies are financing some assets which do not belong to the operator but to the municipalities, and therefore none of them should appear on operator's financial statements. The point of view in favor of including them argues that the contract makes the operator responsible for assets maintenance and replacement, which means that depreciation, has to be included as expense accordingly to assets value, and therefore depreciation, assets and subsidies have to be included in the financial statements. The scenarios presented here show results under both scenarios with and without subsidies. Since the indicators when subsidies are included are lower than the required value, some other financial indicators were checked in order to evaluate the financial situation of the utilities and the risk to cover its financial responsibilities with debt. All the debt indicators show a pretty sound financial situation for the utility and good capacity to respond with debt service.

Table 20. Financial Indicators for Private Entities

	2006	2007	2008	2009	2010	2011	2012
<i>Aguas de la Peninsula</i>							
Debt Service Coverage	5.7	(13.4)	3.2	4.8	2.3	3.3	3.6
Current Ratio	2.8	4.5	3.9	2.4	5.1	3.7	3.9
Debt as % of Capitalization	0.64	0.10	0.07	0.05	0.04	0.04	0.04
Liabilities/Assets	0.39	0.09	0.07	0.05	0.04	0.04	0.03
liabilities/Operating Income	0.35	0.70	0.84	0.61	0.43	0.39	0.33
Operating Ratio (with dep)	1.39	1.36	1.23	1.10	0.92	0.89	0.84
Working Ratio (w/o dep)	1.19	1.10	0.94	0.82	0.72	0.70	0.66
<i>Aguas de la Guajira</i>	2006	2007	2008	2009	2010	2011	2012
Debt Service Coverage		46.0	20.9	11.8	9.2	6.4	5.5
Current Ratio	5.56	3.4	3.8	4.6	4.9	5.0	5.1
Debt as % of Capitaliz	0.22	0.06	0.04	0.04	0.04	0.04	0.04
Liabilities/Assets	0.18	0.05	0.04	0.03	0.04	0.04	0.04
liabilities/Operating Income	0.14	0.24	0.34	0.42	0.45	0.48	0.51
Operating Ratio (with dep)	1.12	1.04	0.95	0.92	0.78	0.79	0.74
Working Ratio (w/o dep)	0.70	0.61	0.52	0.50	0.49	0.49	0.49
<i>Aguas del Sur</i>	2006	2007	2008	2009	2010	2011	2012
Debt Service Coverage	0	7.5	4.7	3.4	3.2	2.0	2.4
Current Ratio	5.8	2.5	5.8	4.0	3.2	7.6	3.1
Debt as % of Equity	1.64	0.20	0.13	0.12	0.10	0.09	0.09
Liabilities/Assets	0.62	0.17	0.12	0.10	0.09	0.08	0.08
liabilities/Operating Income	0.47	0.55	0.91	0.99	0.87	0.72	0.70
Operating Ratio (with dep)	1.01	1.03	0.96	0.89	0.85	0.77	0.76
Working Ratio (w/o dep)	0.80	0.83	0.74	0.66	0.62	0.59	0.59

54. Financial statements of each utility resulting from the second scenario are presented in Tables 25, 26 and 27 of this Annex

Sensitivity Analysis

55. A sensitivity analysis was carried out to measure the impact on financial results with the change of some important variables. This analysis was conducted on the following critical assumptions:

- Revenue Collection Rate
- Operating costs
- Labor Productivity
- Unaccounted for Water

56. The impact of each change was measured as the difference of the resulting net present value of annual cash flows of the company (without financing), compared with the net present value of annual cash flows before the change, everything else remaining constant.

57. The results show that if the assumed efficiency gains are not achieved, the operation would not be financially viable and there would be need for additional subsidy to cover not only whole investment costs but operation costs as well. Additional subsidy needed if entities do not comply with revenue collection rate would be of US\$ 14 million; US\$ 2 million additionally if operating costs does not decrease; US\$ 1 million if labor productivity does not improve; and about US\$ 6 million if unaccounted for water remain at its current level.

Table 21. Results of the Sensitivity Analysis

	<i>Additional Subsidy Required (miles US\$)</i>			
	<i>Aguas de la Peninsula</i>	<i>Aguas de la Guajira</i>	<i>Aguas del Sur</i>	<i>Total</i>
<i>If Revenue Collection Rate remains at current levels</i>	6,712	2,195	5,430	14,337
<i>If Operating costs does not improve</i>	1,029	0	1,164	2,193
<i>If Labor Productivity remains at current level</i>	515	0	970	1,485
<i>If unaccounted for water remains at its current level</i>	2,665	1,097	1,939	5,701

58. The most important variables are the revenue collection rate and unaccounted for water, and therefore they will be monitored as part of the Project.

Table 22. Financial Statements Aguas de la Peninsula 2002-2005. Million of CO\$

	2002	2003	2004	2005
<u>Income Statement</u>				
<i>Revenues</i>				
<i>Water</i>	168,751	299,922	784,291	1,427,344
<i>Sewerage</i>	366,612	465,765	736,750	527,061
<i>Other operational</i>	30,878	-	-	-
<i>Revenues (Total)</i>	566,240	765,687	1,521,041	1,954,404
<i>Operating Income</i>	(460,759)	(574,280)	(549,996)	(385,228)
<i>Net Income</i>	1,502	25,303	38,531	25,570
<u>Balance Sheet Items</u>				
<i>Current Assets</i>	646,695	1,169,367	2,180,713	2,190,234
<i>Net Fixed Assets</i>	33,960	100,374	127,774	124,020
<i>Other assets</i>	611,392	804,146	199,881	-
<i>Total Assets</i>	1,292,047	2,073,887	2,508,368	2,314,254
<i>Current Liabilities</i>	98,421	621,424	906,532	665,624
<i>Debt</i>	5,003	-	110,843	132,067
<i>Other Liabilities</i>	113,275	621,424	1,017,375	797,690
<i>Total Liabilities</i>	1,178,772	1,452,462	1,490,993	1,516,564
<i>Equity</i>	1,292,047	2,073,886	2,508,368	2,314,254
<i>Total Liabilities and Equity</i>	646,695	1,169,367	2,180,713	2,190,234

Table 23. Financial Statements Aguas de la Guajira 2003-2005. Million CO\$

	2003	2004	2005
<i><u>Income Statement</u></i>			
Revenues			
Water	988,458	1,310,351	1,427,344
Sewerage	1,197,041	1,474,566	1,798,823
Other operational	81,238	(837,467)	(970,157)
Revenues (Total)	2,266,737	1,947,450	2,256,009
Operating Income	648,136	(56,769)	371,164
Net Income	(76,256)	122,937	125,841
<i><u>Balance Sheet Items</u></i>			
Current Assets	1,942,378	2,303,909	2,264,520
Net Fixed Assets	68,369	78,269	75,128
Other assets	445,715	294,437	-
Total Assets	2,456,462	2,676,615	2,339,649
Current Liabilities	724,763	707,125	439,045
Debt	-	5,200	5,200
Other Liabilities	6,993	15,864	15,864
Total Liabilities	731,756	728,189	460,110
Equity	1,724,705	1,948,426	1,879,539
Total Liabilities and Equity	2,456,462	2,676,615	2,339,649

Table 24. Financial Statements Aguas del Sur 2003-2005. Million CO\$

	2003	2004	2005
<u>Income Statement</u>			
Revenues			
Water	552,663	1,008,789	1,203,870
Sewerage	181,392	233,408	240,883
Other operational	47,301	(126,354)	-
Revenues (Total)	781,356	1,115,843	1,444,753
Operating Income	(901,909)	(742,369)	(846,424)
Net Income	(135,677)	604,607	145,756
<u>Balance Sheet Items</u>			
Current Assets	677,813	1,521,898	1,735,084
Net Fixed Assets	3,830	2,830	2,830
Other assets	114,608	69,949	-
Total Assets	796,251	1,594,677	1,737,914
Current Liabilities	874,089	868,754	363,626
Debt	-	-	553,624
Other Liabilities	57,839	256,993	256,993
Total Liabilities	931,928	1,125,747	1,174,243
Equity	(135,677)	468,930	563,671
Total Liabilities and Equity	796,251	1,594,677	1,737,914

Table 25. Financial Statements. Aguas de la Peninsula (Million CO\$)

	2006	2007	2008	2009	2010	2011	2012
<u>Operating Income</u>							
Revenues							
Water	1,862,071	2,475,028	3,591,676	5,981,108	7,975,437	8,542,543	9,146,520
Sewerage	797,735	1,083,724	1,947,663	2,818,817	3,429,587	3,682,251	3,980,538
Revenues (Total)	2,659,806	3,558,752	5,539,338	8,799,925	11,405,023	12,224,794	13,127,058
Operating Income	(507,106)	(371,395)	312,755	1,556,420	3,147,274	3,655,001	4,475,729
Net Income	(52,179)	(226,205)	(425,306)	(380,119)	973,408	1,227,424	1,790,829
<u>Funds Statement Items</u>							
Internal Sources	(12,154)	274,679	1,201,865	2,348,428	3,345,255	3,718,763	4,236,439
Subsidies	-	21,145,298	38,299,421	33,812,918	11,530,243	5,938,075	-
Borrowings	-	1,760,767	1,914,954	203,377	392,238	31,438	46,277
Equity Investments	-	1,431,962	2,593,640	2,289,814	786,153	404,869	-
Total Sources	(12,154)	24,612,705	44,009,881	38,654,536	16,053,888	10,093,145	4,282,716
Capital Expenditures	-	23,866,025	43,227,338	38,163,564	13,102,549	6,747,813	2,076,730
Working Capital Increase (Decrease)	(219,482)	751,365	232,374	(715,883)	1,372,391	(143,477)	264,868
Other assets & liabilities Increase (Decrease)	-	-	-	-	-	-	-
Dividend	-	-	143,196	402,560	631,542	2,307,278	826,358
Debt Service	36,271	35,645	300,416	638,521	864,044	1,155,884	1,108,058
Total Applications	(183,210)	24,653,034	43,903,324	38,488,761	15,970,526	10,067,497	4,276,014
Change in Cash	171,056	(40,329)	106,556	165,774	83,363	25,647	6,702
<u>Balance Sheet Items</u>							
Current Assets	2,278,108	2,803,411	3,389,389	3,427,860	4,278,356	4,545,405	4,817,799
Net Fixed Assets	120,267	23,505,218	65,386,934	101,441,606	112,765,948	117,634,336	117,800,491
Other assets	-	-	-	-	-	-	-
Total Assets	2,398,374	26,308,628	68,776,323	104,869,466	117,044,304	122,179,741	122,618,290
Current Liabilities	801,923	616,191	863,238	1,451,819	846,561	1,231,440	1,232,265
Debt	132,067	1,876,999	3,773,086	3,957,596	4,079,429	3,566,897	3,040,151
Total Liabilities	933,989	2,493,189	4,636,324	5,409,415	4,925,990	4,798,337	4,272,416
Equity	1,464,385	23,815,439	64,139,999	99,460,051	112,118,314	117,381,404	118,345,874
Total Liabilities and Equity	2,398,374	26,308,628	68,776,323	104,869,466	117,044,304	122,179,741	122,618,290

Table 26. Financial Statements. Aguas de la Guajira (Million CO\$)

	2006	2007	2008	2009	2010	2011	2012
<u>Operating Income</u>							
Revenues							
Water	1,824,518	2,327,756	2,941,378	3,263,648	3,494,675	3,780,078	3,959,670
Sewerage	1,916,138	2,164,531	2,413,345	2,669,497	2,943,500	3,083,346	3,229,836
Other Income	(449,949)	(216,144)	(103,056)	(34,256)	-	-	-
Revenues (Total)	3,290,708	4,276,143	5,251,667	5,898,889	6,438,176	6,863,424	7,189,506
Operating Income	993,122	1,649,751	2,513,725	2,938,968	3,283,622	3,502,910	3,669,722
Net Income	533,573	789,570	1,181,179	1,291,102	2,173,304	2,150,411	2,556,445
<u>Funds Statement Items</u>							
Internal Sources	349,963	886,857	1,736,080	2,456,520	3,327,613	3,569,769	3,901,828
Subsidies	-	13,733,670	21,321,522	21,961,168	7,540,001	7,766,201	-
Borrowings	-	351,492	906,867	727,745	469,423	547,676	627,825
Equity Investments	-	1,716,709	2,665,190	2,745,146	942,500	970,775	-
Total Sources	349,963	16,688,728	26,629,660	27,890,578	12,279,537	12,854,421	4,529,653
Capital Expenditures	-	17,167,087	26,651,903	27,451,460	9,425,001	9,707,751	647,500
Working Capital Increase (Decrease)	31,220	(362,062)	(118,859)	234,034	143,927	107,333	82,655
Other assets & liabilities Increase (Decrease)	(417)	(874)	(1,346)	(1,915)	(2,703)	(3,828)	(5,478)
Dividend	-	-	-	-	2,349,186	2,485,674	3,092,172
Debt Service	-	27,155	88,793	188,754	348,129	540,563	699,713
Total Applications	30,803	16,831,305	26,620,491	27,872,333	12,263,540	12,837,493	4,516,562
Change in Cash	319,160	(142,578)	9,169	18,245	15,997	16,928	13,091
<u>Balance Sheet Items</u>							
Current Assets	2,494,135	2,177,997	1,941,494	2,146,541	2,318,324	2,458,268	2,565,883
Net Fixed Assets	71,988	16,892,592	42,664,974	68,687,885	76,495,836	84,392,383	83,215,728
Other assets	-	-	-	-	-	-	-
Total Assets	2,566,123	19,070,590	44,606,469	70,834,425	78,814,160	86,850,651	85,781,611
Current Liabilities	448,598	637,100	510,287	463,054	474,913	490,596	502,465
Debt	5,200	356,692	1,263,559	1,991,304	2,410,514	2,778,425	3,122,521
Other Liabilities	16,281	17,155	18,501	20,416	23,118	26,947	32,425
Total Liabilities	470,079	1,010,947	1,792,347	2,474,774	2,908,546	3,295,968	3,657,410
Equity	2,096,044	18,059,643	42,814,122	68,359,652	75,905,614	83,554,683	82,124,201
Total Liabilities and Equity	2,566,123	19,070,590	44,606,469	70,834,425	78,814,160	86,850,651	85,781,611

Table 27. Financial Statements. Aguas del Sur (Million of CO\$)

	2006	2007	2008	2009	2010	2011	2012
<u>Operating Income</u>							
Revenues							
Water	4,247,827	4,731,575	5,363,692	5,931,998	6,510,699	7,096,412	7,433,563
Sewerage	1,052,331	1,352,218	1,656,199	2,000,655	2,196,829	2,338,370	2,449,466
Other Income	-	-	-	-	-	-	-
Revenues (Total)	5,300,158	6,083,793	7,019,891	7,932,652	8,707,528	9,434,783	9,883,029
Operating Income	1,077,087	1,036,560	1,827,444	2,684,900	3,316,543	3,903,290	4,088,735
Net Income	1,456,904	1,119,740	1,621,218	1,671,080	1,946,337	3,012,976	3,267,661
<u>Funds Statement Items</u>							
Internal Sources	1,030,202	1,439,908	2,473,258	3,538,487	4,095,468	4,334,055	4,468,311
Subsidies	-	12,781,246	26,457,180	17,031,809	7,017,105	3,613,809	-
Borrowings	1,240,739	196,236	3,990,592	1,555,070	-	479,825	749,125
Equity Investments	-	1,704,166	3,527,624	2,270,908	935,614	481,841	-
Total Sources	2,270,941	16,121,556	36,448,653	24,396,275	12,048,188	8,909,531	5,217,437
Capital Expenditures	-	17,041,662	35,276,239	22,709,079	9,356,141	4,818,412	1,660,401
Working Capital Increase (Decrease)	1,772,118	(1,358,919)	367,618	(571,621)	(444,070)	493,126	(370,952)
Other assets & liabilities Increase (Decrease)	256,993	-	-	-	-	-	-
Dividend	-	-	340,833	1,046,358	1,627,153	1,764,822	1,848,504
Debt Service	83,044	371,073	452,026	1,207,912	1,426,887	1,891,925	2,057,884
Total Applications	2,112,155	16,053,816	36,436,718	24,391,729	11,966,111	8,968,286	5,195,837
Change in Cash	158,786	67,739	11,935	4,546	82,076	(58,755)	21,600
<u>Balance Sheet Items</u>							
Current Assets	3,988,372	3,395,583	2,888,432	2,437,395	2,121,190	2,182,733	2,281,722
Net Fixed Assets	2,660	16,703,318	50,933,029	72,141,398	79,809,706	83,289,967	83,587,311
Other assets	-	-	-	-	-	-	-
Total Assets	3,991,032	20,098,900	53,821,460	74,578,793	81,930,896	85,472,701	85,869,034
Current Liabilities	686,009	1,384,399	497,695	613,733	659,521	286,694	735,035
Debt	1,794,363	1,990,599	5,902,101	7,200,834	6,916,463	6,541,832	6,214,349
Other liabilities	-	-	-	-	-	-	-
Total Liabilities	2,480,373	3,374,998	6,399,796	7,814,568	7,575,984	6,828,526	6,949,384
Equity	1,510,659	16,723,902	47,421,664	66,764,226	74,354,911	78,644,174	78,919,650
Total Liabilities and Equity	3,991,032	20,098,900	53,821,460	74,578,793	81,930,896	85,472,701	85,869,034

Annex 10: Summary Environmental Assessment
COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project

Introduction

1. The Government of the Department of La Guajira contracted an environmental assessment (EA) for the Project. In considering the type, location, sensitivity and scale of the proposed Project, as well as the nature and magnitude of its potential impacts, the Bank has classified the Project as Category B. The EA aims to guarantee environmental sustainability in the Project area and to improve the decision making process with regard to environmental matters. The assessment has evaluated potential risks and environmental effects in the Project area; considered alternative Projects; and identified ways to improve the design and execution of sub-projects through the prevention or mitigation of adverse environmental effects and the capture of positive impacts. The EA includes an environmental technical specifications manual.

2. The EA was presented at public forums in Riohacha, Uribia (Upper Guajira) and San Juan (Lower Guajira) on May 5, 8, and 9, respectively. The forums included public officials from the Regional Corporation of La Guajira and municipal, department and national level governments; municipal councils; and representatives from the private sector, the *Contraloria*, civil society, NGOs, community organization leaders, and the press (print, radio, and TV). The Government of La Guajira distributed the EA documentation to the participants and provided copies to the administrative offices of the Department, the Uribia mayor's office, and the Municipality of San Juan, for reference and feedback.

Environmental Assessment

3. The final EA document includes the following items:

(i) *Baseline data.* The EA assesses the dimensions of the Department of Guajira and describes relevant physical, biological, and socioeconomic conditions, prior to the commencement of the Project. The baseline section also indicates the accuracy, reliability, and sources of the data.

(ii) *Policy, legal, and administrative framework.* The EA discusses the policy, legal, and administrative framework within which the EA is carried out. It examines the EA and other environmental regulations enacted by the Government of Colombia and relevant to the Project.

(iii) *Analysis of alternatives and identification of environmental impacts.* The EA compares feasible Project alternatives—including the "without Project" situation—in terms of their potential environmental impacts; the feasibility of mitigating such impacts; their suitability under local conditions; and their institutional, and monitoring requirements.

(iv) *Environmental screening framework and typology of sub-projects.* Since the final list of all sub-projects is unknown, the EA identifies a typology of WSS sub-projects. For each potential sub-project, the EA predicts and assesses its likely positive and negative impacts, to the extent possible, in quantitative terms. The EA also identifies mitigation measures and explores opportunities for environmental enhancement.

(v) *Environmental management plan (EMP)*. The EMP covers mitigation measures, monitoring, and institutional strengthening. It also includes a manual of environmental technical specifications, and a protocol for environmental auditing.

Baseline: Environmental problems associated with potable water and sanitation service provision

4. The Project will be carried out in the Department of La Guajira located in northeastern Colombia (Figure 1). The Project will benefit 15 municipalities with an area of 20,848 km². The main economic activities in La Guajira are coal mining, oil and gas production, agriculture, cattle ranching and tourism.

Figure 1. Area of Influence of the Project.



5. La Guajira has a population of approximately 520,000 inhabitants (Table 1). Approximately 70% of them live in urban centers, particularly in Maica and Riohacha. About 42% of La Guajira's population is comprised of indigenous communities of the Wayuú, and Kogui.

Table 1: Population La Guajira (2005)

Municipio		Población 2005			Participación	Rural/Total
		Cabecera	Rural	Total	Total	%
1	Rioacha	91.906	7.566	99.472	18,9%	7,6%
2	Albania	6.377	3.336	9.713	1,8%	34,3%
3	Barracas	17.377	12.479	29.856	5,7%	41,8%
4	Dibulla	4.397	13.658	18.055	3,4%	75,6%
5	Distracción	4.747	2.598	7.345	1,4%	35,4%
6	El Molino	5.265	417	5.682	1,1%	7,3%
7	Fonseca	23.529	3.078	26.607	5,1%	11,6%
8	Hatonuevo	7.004	1.254	8.258	1,6%	15,2%
9	La Jagua del Pilar	893	784	1.677	0,3%	46,8%
10	Maicao	130.149	8.656	138.805	26,4%	6,2%
11	Manaure	9.669	36.465	46.134	8,8%	79,0%
12	San Juan del Cesar	26.855	9.574	36.429	6,9%	26,3%
13	Uribia	7.430	61.773	69.203	13,2%	89,3%
14	Brumita	8.507	340	8.847	1,7%	3,8%
15	Villanueva	18.696	1.369	20.065	3,8%	6,8%
	Total	362.801	163.347	526.148	100%	31,0

6. Inadequate water supply, sanitation and hygiene are pervasive in La Guajira. The poor provision of water and sanitation services in La Guajira causes a variety of environmental problems. Unsanitary conditions result from obsolete sewerage systems, leakage, the spillage of wastewater in urban areas, and untreated surface water, among others. This analysis draws upon the two (2) largest cities of the Department, Riohacha and Maicao, the cases of which are similar to many other municipalities. Network failures, illicit household connections, low coverage and lack of treatment and disposal occur in most areas. The environmental degradation related to the management and disposal of wastewater is a problem in most of La Guajira's municipalities.

7. Sewerage systems collect wastewater and rainwater. Some municipalities have oxidation ponds which do not function properly; untreated wastewater spills into and contaminates bodies of water. Most wastewater is not properly captured and treated, and instead spills into the ground, posing a high risk of direct contact with the population. In places such as Maicao, oxidation ponds were built in places inhabited by vulnerable communities and thus, pose a high risk of direct contact with the population. Unsanitary conditions result from lack of or inadequate sewerage systems, leakage, the spillage of wastewater in urban areas, and untreated surface water, among others. In all of La Guajira's municipalities, wastewater discharges do not comply with the national standards established by Decree 1594 of 1983.

8. The EA included an analysis of Project alternatives to improve provision of water and basic sanitation service. The process entailed a description of environmental characteristics, followed by identification and definition of environmental impacts associated with the water and sanitation sector. Alternatives were then considered and an EA was done for each to determine the most environmentally sound Project for the Department of Guajira. The EA compares feasible Project alternatives—including the "without Project" situation and an alternative with scattered and uncoordinated investments—in terms of their potential environmental impacts; the feasibility of mitigating such impacts; their suitability under local conditions; and their institutional and monitoring requirements.

9. The Projected impacts for the "without Project" situation and an alternative with scattered and uncoordinated investments have an overall negative environmental and socio-economic impact. Their technical conditions would not meet the needs of the population in either the short or long term; the final result from implementing either of these alternatives would be poor quality (and similar to the current level) of water and basic sanitation service provision, and a tendency for this to worsen owing to population growth, deterioration of water bodies from disposal of untreated or insufficiently treated wastewater, increased morbidity rates, little progress achieved regarding the local culture of non-payment, limits on available resources, and little progress achieved in organizational structure, among others. The analysis demonstrates that the "without Project" situation and an alternative with scattered and uncoordinated investments would have an overall negative impact on the region particularly associated with increasing waterborne diseases.

10. The EA analysis found that from an environmental standpoint, the best alternative includes technical measures to address the current deficit in water and sanitation service provision, and medium term goals to achieve: potable water supply and sanitation service provision for 300,000 consumers, 22 hours per day of water services for those connected to a municipal network, 90% of households in participating municipalities with access to safe water supply, and 72% of households in participating municipalities connected to a sewerage network. The environmental impact in socioeconomic terms would be positive; economic development would be cause considerable improvement in societal welfare.

Typology of works, potential environmental impacts and construction standards

11. In accordance with the EA, the Government of La Guajira and municipalities will ensure that their sub-projects comply with legal and national environmental standards as well as with the social and environmental safeguard policies of the Bank. The Project will consider potential impacts associated with civil works and operations to identify appropriate mitigation and control mechanisms and execute proper supervision. The Project will also consider the distribution of positive impacts and account for the cultural aspects of beneficiary populations (such as the indigenous community).

12. In accordance with the Project objectives, possible sub-project types were identified.

13. In urban areas, the Project will finance improvements to the water supply and sanitation infrastructure including water uptake works and treatment facilities, primary and secondary water supply and sewerage networks, and wastewater treatment facilities. In rural areas, the Project will include small investments in rainwater catchments, including basic tanks and treatment infrastructure, as well as small groundwater investments. Probable sub-project types to be financed under the Project are summarized in Table 2.

Table 2: Probable sub-projects for basic sanitation in La Guajira					
Component		Urban water supply	Rural water supply	Urban sewerage	Rural sewerage
1	Small dams / catchments	X			
2	Intakes	X	X		
3	Conduction lines	X	X		
4	Potable water treatment systems	X	X		
5	Primary networks	X	X		
6	Treated water storage	X	X		
7	Distribution networks	X	X		
8	Pumping stations	X		X	
9	Sewage networks			X	X
10	Rainwater drainage			X	
11	Combined sewerage and drainage			X	
12	Final outfalls			X	
13	Wastewater treatment			X	X
14	Submarine outfalls			X	
15	Reuse systems			X	

14. Each type of sub-project has distinct impacts but given the small, disbursed investments of the Project and the potential to mitigate most negative impacts by applying high standards of Project design and operation, none presents a significant impact. Thus, the Project does not finance any sub-project in Category A. It is envisaged that impacts of implementation of sub-projects will not be significant and can be prevented or mitigated. The screening procedures will ensure that all sub-projects can be classified as environmental category B or C, according to the Bank's EA policy.

15. The location and study of alternatives, and the elaboration of the environmental impact study and management of permits, are activities that interact with all components (physical, biotic, socioeconomic); planning for these is considered an appropriate strategy to prevent and control environmental impacts. Location studies are important as they consider environmental criteria for determining the location of Projects and are a protective measure against potential Project risks. The activities presenting the largest number of interactions among the environmental components are: removal of vegetation cover, inter-basin transfers, flooding, use of machinery and equipment, equipment storage and sewerage system operation. The EA includes environmental management measures addressing these activities.

16. The environmental impacts exerted by sub-projects includes effects on water resources (sewerage, flow into natural water bodies and water quality), the physical (degradation of organic layer of soil, and soil erosion), atmospheric (concentration of gas pollutants, particulate material, odors and noise), and sociocultural (such as potential social conflicts). Environmental management and control measures focus on these areas.

Table 3: Summary of activity interactions with the environment																
Stage	Works/Activities		Environment													
			Physical				Biotic			Socioeconomic						
			G	A	H D	H G	V	F	E	I	SC	AP	EC	B	Frequ ency	
Planning	1	Location and study of alternatives	X	X	X	X	X	X	X	X	X	X	X	X	12	
	2	Environmental impact study and permits	X	X	X	X	X	X	X	X	X	X	X	X	12	
	3	Building purchase									X	X			2	
Construction	4	Removal of vegetation cover	X		X		X	X	X			X			5	
	5	Earth removal/transfer	X	X	X										3	
	6	Management of surplus materials	X	X	X										3	
	7	Exploitation of construction materials	X	X	X						X				4	
	8	Intake construction	X	X	X						X				4	
	9	Inter-basin transfers	X	X	X				X		X				5	
	10	Flooding	X		X	X					X	X			5	
	11	Use of machinery and equipment	X	X	X						X			X	5	
	12	Creation of deep wells				X									1	
	13	Equipment storage	X	X	X	X					X			X	6	
	14	Demolition and construction material removal	X	X							X			X	4	
	15	Meter installation (micro and macro meters)									X				1	
Operation and maintenance	16	Water capture			X	X					X				3	
	17	PTAP operation	X		X						X			X	4	
	18	Sewerage system operation	X	X	X						X			X	5	
Frequency			14	11	14	6	3	3	4	2	14	4	2	7	84	

Environmental Screening of Sub-Projects

17. As the exact sub-projects that will be financed by the Project are not yet known, the EA developed an environmental screening mechanism. Sub-project EA screening will ensure that Category "A" sub-projects will not be included in the Project. The EA identified different types of sub-projects. The impacts of each type of sub-project are distinct, but none presents a significant negative environmental impact due to their size and the ability to mitigate most negative impacts by applying environmental construction standards. All sub-projects will be evaluated for their eligibility through a screening mechanism by the Project implementing unit. All sub-projects are designed and proposed by the municipal water utilities. Each sub-project will be sent to the Program Implementation Unit for review and assessment against previously set out criteria. The Program Implementation Unit will receive, as part of the technical and financial feasibility study, the relevant environmental data needed to screen the Project, including:

1. maps of Project location at various scales;
2. environmental baseline data;
3. licenses;
4. permits;
5. concessions; and
6. monitoring plans with indicators.

18. Based on the completed information, the Program Implementation Unit will screen the proposed sub-project for its potential environmental impacts, compliance with national laws and norms, and compliance with Bank policies, using an environmental checklist (Table 4).

Table 4: Environmental Screening Checklist		
	Yes or No	Comments
<u>Administrative Criteria</u>		
Does the Legal Agreement include all environmental covenants included in the project Environmental Management Plan?		
If applicable (based on Decree 1220 of 2005), attach <u>Environmental License</u> .		
Are there <u>other relevant permits</u> or licenses? Which?		
When applicable, attach <u>water concession</u> (for diversion or capture).		
When applicable, attach wastewater <u>Discharge Permit</u> (<i>Permiso de Vertimiento</i>)		
When applicable, attach <u>permit for mining of construction materials</u> (<i>Permiso de extracción de materiales de arrastre</i>).		
Attach the certification of the responsible authority as regards <u>location/construction permission</u> as foreseen in the <i>Plan de Ordenamiento Territorial</i> (POT)		
The independent supervisor (<i>interventor</i>) has certified that the subproject design meets all obligations under the RAS 2000.		
The technical and financial obligations required by environmental permits and environmental management plan, Resettlement Plan, and Indigenous Peoples' Plan have been prepared and have <u>been budgeted in the subproject budget</u> .		
<u>The Environmental Monitoring and Evaluation Plan</u> have been budgeted for each subproject .		
<u>Screening Criteria – Operational Policies</u>		
OP 4.01 Will the subproject have significant or unique environmental impacts? See OP 4.01 in continuation, below.		If “Yes”, the subproject will not be financed by the Project.
OP 4.01 If the subproject will not have significant impacts, will it have limited or site-specific impacts? See OP 4.01 in continuation, below.		If “Yes”, preparation of a Environmental Action Plan (EMP) which enumerates the obligations defined in the concession and permission and prior review by the PIU
OP 4.04 Does the subproject have the potential to cause a significant change in a natural habitat or national importance (directly or indirectly)? See OP 4.04 in continuation, below.		If “Yes”, the subproject will not be financed by the Project.

Table 4: Environmental Screening Checklist

	Yes or No	Comments
OP 4.04 Does the subproject includes a compensation plan for significant changes in a natural habitat or national importance (directly or indirectly)?		If “Yes”, the subproject will not be financed by the Project .
OP 4.37 Is any subproject located downstream of large, existing dams?		If “Yes”, a dam safety assessment might be required, per OP 4.37.
OP 4.11 Are there known archaeological or historic sites or other areas of cultural patrimony in the area of influence of the subproject? Is there are risk that the subproject will damage or destroy physical cultural property?		If “Yes”, the potential issues must be reported to the Colombian Institute of Archaeology and History (ICANH) and the preparation of a plan to address chance finds.
OP 4.01		
Is the subproject area vulnerable to natural disasters (located in a flood zone, near a volcano, in an area of seismic activity, or on the coast and vulnerable to hurricanes)?		Based on EMP, adopt environmental measures to reduce vulnerability to natural disasters
Is there a risk that the subproject will modify levels of groundwater by changing recharging patterns?		Based on EMP, adopt environmental measures to mitigate impacts on groundwater
Could the subproject affect the quality of ground water?		Based on EMP, adopt environmental measures to ensure water quality
Could the subproject affect the quality of surface waters, rainwater discharge, or through solid waste disposal?		Based on EMP, adopt environmental measures to manage and dispose solid waste disposal.
Will the Project generate any hazardous waste (such as sludge) which requires special handling and disposal?		Based on EMP, adopt environmental measures for hazardous waste management.
Could the subproject affect the quantity of river, lake or catchments basin?		Based on EMP, adopt environmental measures to mitigate impacts on water quantity.
Are there multiple users of the source of potable water or body of discharge?		Based on EMP, adopt environmental measures to ensure efficiency and equity in the allocation of water rights and to protect water quality
Are there watersheds in the subproject area which require protection?		Based on EMP, adopt environmental measures to protect watersheds
IP 4.04		
Does the subproject area include: protected areas; areas with endangered species; areas with grasslands; wetlands; or other areas of biological importance?		Based on EMP, adopt environmental measures to mitigate impacts on natural habitats including protected areas, endangered species, and wetlands.

ENVIRONMENTAL MANAGEMENT PLAN

19. The Project's environmental management plan incorporates measures to minimize and control environmental impacts of the sub-projects and to establish basic compliance requirements for Specialized Operators. The EMP establishes environmental construction standards and protocols for environmental audits to verify whether the sub-projects comply with minimum environmental standards (or the proposed management criteria), as well as with current environmental legislation.

Technical and environmental specifications for aqueduct and basic sanitation Projects

20. The EA includes environmental construction standards and a guide for the design of sub-project environmental management plans, and for the minimization, prevention and control of environmental impacts. These standards are included in a manual for technical and environmental specifications for the construction, operation and maintenance of works and Projects related to aqueducts and basic sanitation in La Guajira. This manual also aids Specialized Operators charged with the basic service provision to efficiently implement environmental protection and management measures.

Environmental contractual clauses for bidding documents and contracts with Specialized Operators

21. The construction of sub-projects implies contractual relationships between municipalities and service providers. The environmental obligations should be transferred to the contracted party since they are the executors of the works and will be responsible for controlling environmental impacts. The EA includes environmental covenants in the sub-project contracts; this applies for concessions and/or for the execution of a specific work or activity.

Environmental monitoring

22. Continual monitoring will be undertaken to determine how effective environmental management activities are implemented at the sub-project level. If necessary, monitoring results will be used to refine the required environmental screening and procedures or the environmental technical specifications. Environmental monitoring will pay special attention to identifying and mitigating cumulative environmental impacts. The PIU will summarize the screening and monitoring outcomes for each sub-project in a standard format. This format will include Project information to enable monitoring, such as data on project type, location, affected area, beneficiaries, environmental categorization, type of environmental work necessary, indicators, and ongoing monitoring results as reported by the municipalities.

Institutional strengthening program

23. The Department will establish a Program Implementation Unit (PIU) to manage the Project. The unit will contain an advisory board with representatives from the municipalities, Department, and the Federal government and will be in charge of coordinating all activities related to the Specialized Operators and Project execution. The PIU will include environmental specialists who will participate in:

- Project preparation and contracting and management of all necessary studies and environmental services.
- Environmental management in the:

- Organization of bidding processes for the selection of Specialized Operators in municipalities that have not been incorporated and negotiation of new contracts with existing operators;
- Reviewing of investment plans of operators and setting of goals;
- Monitoring of compliance with environmental legislation;
- Environmental inventory, and environmental auditing of the operation and works contracts;
- Environmental technical assistance for operators;
- Environmental monitoring of the quality and increase in service coverage and compliance with other objectives as listed in the operator contracts; and
- Design and implementation of hand-washing campaigns, and water conservation.

24. **Environmental Investment Component.** The EMP also includes a series of environmental investments including an institutional strengthening of environmental management of water supply and sanitation sub-projects; a strategic water resources management assessment for a sustainable management of water resources in la Guajira; design of non-structural measures for reduction of vulnerability to floods; and a “safe water” sub-project.

25. **Strategic Water Resources Management Assessment.** One of the Project’s objectives is to promote sustainable management of water resources in La Guajira, which are currently impacted by an inefficient and inequitable allocation of water rights and by widespread water pollution. The EA includes terms of reference to carry out a strategic water resources management assessment, consisting of process aimed at ensuring a sustainable management of water resources. The terms of reference of the SEA contains the activities, priorities, responsibilities and technical and social actions geared towards the preservation, control and protection of water resources, maximization of the variable flow and reduction of the variable concentration (water quality).

26. **Urban Drainage.** Most of the Department’s municipalities do not have urban drainage. Urbanization affects the hydrologic cycle provoking an increase in peak flows of runoff in affected areas; such an increase increases the vulnerability to floods. The Project includes the design of non-structural measures for flood control.

27. **“Safe water” activities.** To fully achieve the environmental and health development objectives, the EA recommends a “safe water” campaign aimed at reducing the incidence of water borne diseases in both urban and rural settings.

EA public consultations

28. The public forums of the EA (in Riohacha, Uribia and San Juan) highlighted the need to rigorously apply environmental regulations for water concessions. In both Riohacha and San Juan a large percentage of losses occur between the treatment plant and the distribution system. In most cases these losses are associated with fraudulent connections for agricultural and fishing use.

29. The public consultations of the draft EA highlighted the need for governmental enforcement of water and environmental regulations, particularly those associated with water rights regulations. A strategic water resources management assessment aimed at designing and implementing a process for sustainable water resources management, was discussed as a tool for

ensuring an efficient and equitable allocation of water resources. The meeting participants also agreed with the EA proposals to finance the “safe water” sub-project.

30. During all public consultations, the main concerns of stakeholders were focused (i) on the interest in getting potable water supply on a continuous basis in the municipalities and (ii) on ensuring total transparency in the management of public funds, particularly those of revenues associated with “direct royalties.”

Annex 11: Project Transparency and Accountability Strategy and Risk Control Matrix

COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service Management Project

The La Guajira Water and Sanitation Infrastructure and Service Management Project aims to improve the quality of basic services in the water and sanitation sector throughout the Department of La Guajira. La Guajira, like many departments in Colombia – and particularly in Colombia’s Caribbean coastal area – has a reputation for weak governance, corruption, and the continued presence of parallel institutions which have prevented public sector efforts to meet citizen needs in an equitable and effective manner. Analysis undertaken during preparation – and the clear messages which emerged through dialogue with stakeholders at all stages of Project preparation – clearly indicates that corruption, public sector malfeasance, capture by elites and special interests, and the paucity of accountability and transparency in La Guajira are among the greatest obstacles to economic and social development in the Department. The Department is historically among the worst performing in the country as regards sectoral achievements.

To address these obstacles to achieving the Project Objectives, the operation includes 10 concrete design elements which aim to ensure the Project benefits reach their intended beneficiaries and that the Bank and central government authorities are well positioned to take action in the case of malfeasance:

1. All Bank loan proceeds will pass from the Bank, through a commercial fiduciary account, and direct to contractors. No Project resources will be handled by any public official. The use of fiduciaries – specialized trust banks supervised by the banking regulator in Colombia and with extremely high levels of financial management capacity – has been used successfully in other Bank and internationally-financed operations in Colombia. The fiduciary would be a commercial entity, competitively selected to play the role of financial intermediary.
2. All Project funds, including royalty revenues, are ring fenced. Under the operation, royalty (*regalia*) revenues will be passed directly to the *fiduciaria*, without passing through the departmental treasury. Such an approach not only enhances the creditworthiness of the Department and ensures the availability of cash flow for investment and repayment but adds an important measure of transparency in an environment in which the ineffective use of royalty revenues has been a major impediment to achieving poverty reduction and equity enhancing outcomes.
3. The key Project implementation entity is being supported by a technical management team, contracted through a competitive bidding process, which brings independent technical management skills from outside of the Department. This technical unit, staffed by qualified Colombian professionals with experience in the sector, in public procurement, in financial management, and project management, brings both key technical knowledge as well as independent management to the Project. They will formally report to the Governor, to the Project’s Executive Committee (which includes the Central Government) and will have a direct line of communication with Bank staff.
4. The technical management will maintain a public website which will include all relevant contract award information, including the publication of comparator prices for similar works. The Bank believes that a key corruption risk embedded in the Project is the risk of inflated bid prices which might reflect the cost of doing business in La Guajira including the payment of kickbacks,

protection, and patronage. Mitigating this risk is especially difficult. During implementation, in cooperation with the Ministry of Environment, Housing, and Territorial Development which is overseeing the implementation of a large number of investment subprojects across the country under the *Audiencias Públicas* program, the technical management of the Project will publish comparative prices for similar public works in other departments to make publicly known any major cost variations. While many factors might explain cost differences in La Guajira, such an approach would facilitate public inquiry and make contracting information both widely available and put it in an easily understandable context.

5. The operation includes an enhanced Project procurement approach with greater control.

Like any Bank project, all contracting using Loan funds will be undertaken using Bank or Bank-approved procedures subject to the prior- or post-review of Bank staff, and a special effort will be made under the Project to package contracts in such a way as to increase competition and the likelihood that contracts will be of interest to contractors from outside of La Guajira. The Bank's procurement approach for the operation includes several specific actions identified during preparation to enhance both transparency and control, including: (a) all NCB contracts will include audit rights for the Bank as well as standard Bank fraud and corruption clauses; (b) the prior-review threshold will be set to capture all NCB and ICB contracts; (c) the annual investment plans will be reviewed by the Bank with special attention to the risk of contract splitting and opportunities for packaging of contracts will be given regular review; (d) the bidding documents for all works will include cost estimates; (e) special efforts will be made during the initial months of implementation to inform potential contractors outside of La Guajira of the Project and opportunities for participation in bidding processes; and (f) information related to all bids – including non-winning bids – will be included in agreed-upon reporting formats to enhance the identification of patterns which might indicate collusion. The Loan Agreement will also include the Bank's new sanctions regime.

6. The Project includes a well articulated role and strong presence of central government institutions.

Stakeholders interviewed during preparation repeatedly referred to the credibility which Central Government institutions bring to the operation. As such, representatives of the Ministry of Environment, Housing, and Territorial Development will sit on both the Project's Executive Committee – which provides overall supervision and oversight to the Project, as a whole – and the Technical Committee, which is involved in the detailed technical review of the investment plans prepared by operators. The complete institutional arrangement for the Project, which includes a series of checks and balances, oversight by national entities, the Bank, and stakeholder and citizen groups, aims to create an environment of regular control and monitoring and to enhance transparency to the greatest extent.

7. The Project includes explicit avenues for citizen participation and accountability.

In addition to specialized social staff within the Program Implementation Unit, activities are foreseen under Component 3 of the Project to finance an ongoing campaign of public outreach, dissemination, and feedback. This community oversight mechanism complements the existing robust regulatory framework for water and sanitation but allows for a Project-specific mechanism under which citizens can voice concerns about Project implementation and the performance of utility operators. The oversight approach would be handled by the PIU and contracted specialized consultants who would likely be either an NGO or local university. This approach would create a formal and robust complaint mechanism within the operation. In addition, the Bank, as part of supervision activities, would carefully monitor the activities related to citizen accountability and would, if necessary, supplement the supervision team with more regular visits by consultants and Bank staff.

8. Even in advance of the formal contracting of the technical management unit, a broad Communications Strategy has been launched with the objective of informing stakeholders as a whole, with particular emphasis on interested groups, public opinion shapers, and the media, on the strategic objectives of the Project and the detailed design elements which aim to reduce corruption risk. The Communications Strategy has been initiated during the final stages of preparation and will continue, under Project financing, during implementation. The initial phases of the design and launch of the Communications Strategy are being undertaken by a multi-disciplinary team which includes specialized knowledge of the water sector, “modernization” approach, detailed understanding of the Project concept and design, as well as communications and public outreach.

9. A major risk of corruption in infrastructure projects comes from the upstream use of inappropriate technology and technical designs and from poor supervision and technical oversight during construction which can result in such problems as poor quality works or the fraudulent use of substandard materials or inputs, etc. The Project thus relies on a redundant system of technical oversight. First and foremost, all works will be selected and designed by the Specialized Operators or their agents. This has proven to be the most powerful tool for rightsizing investment, as utility operators – those who will have to live with the maintenance and operation of all Project-financed works – have the greatest incentive to ensure that works have appropriate design specifications and meet quality standards. The operators will act as or hire *interventores* – licensed, independent construction supervision specialists – who will sign off on all payments to contractors during construction. Further, the technical management of the Project will spot check works implementation on a regular basis with external, specialized engineering consultants to add a further level of oversight and transparency.

10. The World Bank will employ a more-intensive-than-usual supervision approach to the Project, including (a) the contracting of a full-time local staff to work exclusively on the supervision of the Project who will split his/her time between La Guajira and Bogotá; (b) quarterly, rather than the usual biannual, supervision missions, staffed by both Washington- and field-based specialists; and (c) the use of a multi-disciplinary team which will include dedicated fiduciary, social and environmental specialists, including Indigenous Peoples specialists, to complement the technical water sector team. Such an approach aims to provide a more constant feedback mechanism to Bank management and the use of a full-time staff member on the ground should provide an early-warning mechanism to identify problems of governance or corruption in the most upstream way possible to allow the Bank to take action quickly.

**La Guajira Water and Sanitation Infrastructure and Service Management Project
Transparency and Accountability Risk Control Matrix**

Risk	Control	Evidence	Indicator	Reporting / Oversight
1. Kickbacks and/or protection from bidders to illegal armed groups, mayors, local officials, or other interest groups	<ul style="list-style-type: none"> • Inclusion of cost estimates in all bidding documents • Publication of reference prices (from Project 7281-CO and others) and website dissemination of all contract award information • Low prior-review threshold so Bank will see all bid evaluations for both NCB and ICB 	<ul style="list-style-type: none"> • High bid prices might be an indication of “the cost of doing business” or a “Paramilitary tax.” 	<ul style="list-style-type: none"> • Bid prices relative to other contracts in La Guajira and throughout Colombia 	<ul style="list-style-type: none"> • Regular procurement reporting • Audits
2. PIU pressured by local officials to steer contracts to specific contractors either through disqualification of lowest bidders, rigging of requirements, or through the splitting of contracts	<ul style="list-style-type: none"> • Redundant oversight mechanism (PIU / Central Government / Bank) • Full time Bank staff based in Colombia • Redundant review and sign off of annual investment plans by (a) each Project committee and (b) Bank staff. • High level of contracts subject to prior review • Supervision will look closely into patterns of contracts just below prior review and NCB thresholds. 	<ul style="list-style-type: none"> • Irregularities in the procurement process, including disqualification of lowest bidders might indicate efforts to award contracts to specific bidders. • Multiple small contracts for works which could be bundled might indicate an effort to satisfy multiple constituencies or to steer contracts to political supporters. 	<ul style="list-style-type: none"> • Incomplete or irregular bid evaluation documentation • Number of small contracts • Deviation of contracting approach from agreed-upon annual investment plans • During regular supervision missions, any evidence of inappropriate small works contracts not subject to prior review 	<ul style="list-style-type: none"> • Regular procurement reporting • Annual investment plans • Regular procurement reporting • Post review mission documentation

La Guajira Water and Sanitation Infrastructure and Service Management Project
Transparency and Accountability Risk Control Matrix

Risk	Control	Evidence	Indicator	Reporting / Oversight
3. Low quality investment / substandard construction practices or use of low quality inputs	<ul style="list-style-type: none"> Operators will be responsible for acting as or hiring <i>interventores</i> – licensed, independent construction supervision specialists – who sign off on all contractor payments Technical management of the Project will spot check works implementation on a regular basis with external, specialized engineering consultants. Bank missions will undertake quarterly field visits and full time Bank staff to be hired in Colombia will be an experienced sanitary engineer. 	<ul style="list-style-type: none"> Technical reports of operators and <i>interventores</i> along with signed invoices for works implementation. Any discrepancy in works progress, use of materials, or quality of construction would be an indication of malfeasance. Regular oversight by operators and the PIU – along with Bank missions – will provide technical backstopping and confirmation of work quality. 	<ul style="list-style-type: none"> Technical discrepancies found during oversight by PIU staff Operators report problems / inconsistencies in works implementation Bank supervision missions find technical discrepancies or are “steered” away from work sites during mission field visits 	<ul style="list-style-type: none"> Regular progress reporting PIU technical review reports Bank mission findings
4. Collusion among firms to divide works	<ul style="list-style-type: none"> Systematic review by Bank staff of bid prices across all subprojects, including in agreed-upon reporting formats which facilitate identification of patterns Outreach efforts during Project launch and implementation to advise firms based outside of La Guajira (particularly Bogota and Medellin) of the Project 	<ul style="list-style-type: none"> Collusion is particularly difficult to prove without an admission of guilt, but regular review of standardized reports across subprojects (for all of the concessions involved) will help to identify patterns of high prices and the use of reference prices for other parts of Colombia might also provide substantiation of collusion. Complaints from non-involved contractors might also point in the direction of collusion. 	<ul style="list-style-type: none"> Deviation of prices from reference prices Patterns of contract award or loss among repeated groups of or individual bidders 	<ul style="list-style-type: none"> Periodic review of bid evaluation reports across contracts, consolidated in agreed-upon formats (based on INT-provided model)

La Guajira Water and Sanitation Infrastructure and Service Management Project Transparency and Accountability Risk Control Matrix				
Risk	Control	Evidence	Indicator	Reporting / Oversight
5. Public officials divert funds	<ul style="list-style-type: none"> Use of fiduciary for all Project resources, including resources for loan repayment Payments go directly to contractors from fiduciary, funds do not pass through hands of any public officials or the Specialized Operators 	<ul style="list-style-type: none"> Any evidence of missing or inappropriately managed funds might be an indication of theft or misuse of funds. 	<ul style="list-style-type: none"> Inconsistent or incomplete financial management documentation Independent financial audit reports 	<ul style="list-style-type: none"> Regular Financial Management reports Certified audits
6. Inappropriate designs / overdesign	<ul style="list-style-type: none"> All works will be selected and designed by the Specialized Operators or their agents Annual work plans reviewed by Project Committees (including presence of the Central Government) and also by the Bank. 	<ul style="list-style-type: none"> The risk of overdesign is strongly mitigated by the use of Specialized Operators, PIU oversight, Bank review and no objection to annual work plans, and the use of Ventanilla Única methodologies for all investments. Nonetheless, inappropriate design might be evidence of an attempt to steer a contract to a specific bidder or equipment provider. 	<ul style="list-style-type: none"> Inappropriate technical specifications Deviation from Ventanilla Única procedures. 	<ul style="list-style-type: none"> Annual investment plan reviews by PIU / Project Committees / Bank Staff
7. Contract specifications aimed to benefit only a specific company	<ul style="list-style-type: none"> Role of staff of the Ministry of Central Government in Project Committees High level of prior review 	<ul style="list-style-type: none"> Evidence of collusion between a contractor and/or equipment provider and the operator or PIU might emerge through the tailoring of contract specifications to limit competition. 	<ul style="list-style-type: none"> Inappropriate / overly specific technical specifications 	<ul style="list-style-type: none"> Regular procurement review by technically qualified Bank Staff Post review by procurement and technical staff

La Guajira Water and Sanitation Infrastructure and Service Management Project
Transparency and Accountability Risk Control Matrix

Risk	Control	Evidence	Indicator	Reporting / Oversight
8. Fiduciary agency misuses or diverts Project funds	<ul style="list-style-type: none"> Fiduciary (to be selected under competitive procedures) will be a regulated financial intermediary and its capacity to handle financial management records and accounting will be carefully assessed prior to any disbursement of funds to contractors. The financial management capacity of the PIU staff – who will also play a role in accounting and financial management – was evaluated during Appraisal. The Bank team for Financial Management includes a Bogota-based staff and Mexico-based international staff. 	<ul style="list-style-type: none"> Poor quality financial management records / unable to balance or audit / accounting records and invoices mismatch Problems with audits, financial management reporting in general, and standard financial reporting instruments might be evidence of the misuse or mismanagement of funds. 	<ul style="list-style-type: none"> Inconsistent or incomplete financial management documentation Independent financial audit reports 	<ul style="list-style-type: none"> Regular Financial Management reports Certified audits
9. Falsified and/or overpaid invoices for payment to contractors	<ul style="list-style-type: none"> Payment invoices will be reviewed and signed-off on by the operator / independent <i>interventor</i> and reviewed by the PIU All NCB contracts will include audit rights for the Bank 	<ul style="list-style-type: none"> Payments for incomplete or nonexistent work would be a clear indication of malfeasance on the part of contractors and/or operators. This risk is seen to be low because operators, who are responsible for acting as or contracting <i>interventores</i>, are locked in to long concession contracts and must “live” with Project-financed works. 	<ul style="list-style-type: none"> Inconsistent documentation or findings during field visits by Bank or PIU staff of physical works inconsistent with documentation 	<ul style="list-style-type: none"> Regular PIU progress reports Regular financial management reports Field visits

Annex 12: Project Preparation and Supervision
COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project

	Planned	Actual
PCN review	08/30/05	09/01/05
Initial PID to PIC		10/19/05
Initial ISDS to PIC		10/20/05
Appraisal	01/22/07	01/22/07
Negotiations	02/12/07	02/12/07
Board/RVP approval	03/15/07	
Planned date of effectiveness	April 2007	
Planned date of mid-term review	June 2009	
Planned closing date	October 2011	

Bank staff and consultants who worked on the Project include:

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Ethel Sennhauser	Peer Reviewer	LCSES
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Oscar Alvarado	Peer Reviewer	SASIE

Annex 13: Documents in the Project File
**COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project**

Safeguards Frameworks

Marco de Planificación para los Pueblos Indígenas.

Evaluación Ambiental. Manual de Especificaciones Técnicas Ambientales para la Construcción, Operación y Mantenimiento de Proyectos de Acueducto y Saneamiento Básico en la Guajira.

Evaluación Ambiental. Informe Final.

Other

Carrasco, William. Infraestructura de agua y saneamiento para el Departamento de la Guajira. Formulación del Programa Piloto Rural.

Correa Hernán Darío. Evaluación Social para el Componente Urbano del Proyecto de Infraestructura y Gestión de los Servicios de Agua y Saneamiento en el Departamento de la Guajira.

DNP- MAVDT. CONPES 3430. Garantía de la Nación al Departamento de la Guajira para la Contratación de una Operación de Crédito Público Externo con la Banca Multilateral hasta por US\$90 millones o su equivalente en otras monedas, destinada a la financiación parcial del Programa de Transformación Estructural de la Prestación de los Servicios de Agua Potable y Saneamiento Básico en el Departamento de la Guajira.

Gómez Jaime Hernán. Evaluación del desempeño de los Operadores de Acueducto y Alcantarillado de los Municipios de Maicao y Riohacha. Departamento de la Guajira.

Troyano, Fernando. Asesoría sobre Aspectos Institucionales y Técnicos. Informe Final.

World Bank. Aide Memoire and Back to Office Report. Appraisal Mission. January 22-30, 2006.

World Bank. Aide Memoire and Back to Office Report. Pre-Appraisal Mission. May 5-12, 2006.

World Bank. Aide Memoire and BTOR of Preparation Mission. January 31-Feb 2, 2006.

World Bank. Aide Memoire and BTOR of Preparation Mission. September 19-30, 2005.

World Bank. Minutes of ROC meeting held on December 11, 2006.

World Bank. Minutes of Second QER held on November 15, 2006.

World Bank. Minutes of First QER held on July 19, 2006.

World Bank. Minutes of the PCN Review Meeting held on September 1, 2005.

Annex 14: Summary of Performance of Existing Specialized Operators
COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project

1. Introduction. This Annex describes the performance of existing Specialized Operators in Maicao (Aguas de la Peninsula) and Riohacha (Aguas de la Guajira), and assesses the feasibility of continuing with support for the concession contracts for the duration of the proposed Project. The scope of the analysis included the following activities: (i) determining if the expected targets established in the contract have been fulfilled by the operators, (ii) establishing the investments made by the Specialized Operators, local and Central Government; (iii) determining if the investment goals have been accomplished; (iv) identifying problems encountered during the operation of the contracts; (v) estimating the financial situation of the operators; and (vi) conducting surveys in each municipality to determine the opinion of the consumers about the performance of the Specialized Operators.

Aguas de la Peninsula – Municipality of Maicao

2. *Initial Conditions of the Contract.* The contract was signed on December 2000 for a period of 30 years and the company started operations on April 2001. During the first two years, the operator encountered difficulties in fulfilling the expected targets due to: (i) the municipality did not comply with the works previously agreed on, regarding improvement or construction of wells, treatment plant, pipelines, and reservoirs; (ii) some legal paperwork required for transfer of National funds were not ready, such as environmental license, municipal urban plan, and legal right to put pipelines in the ground; (iii) the upgrade of the treatment; (iv) the information given to the operator regarding actual service conditions was not accurate; and (v) the production capacity of the system which was expected at 300 l/s, was only 130 l/s at the beginning of the contract. All these obstacles made necessary several adjustments of the contract and the redefinition of targets.

3. The number of employees in 2001 was 43 including administrative, technical and operative. The operator started to charge for water supply services in October 2003 and only a year later started to charge a fixed tariff with no micro-meters installed. The initial number of consumers was 7,838 households. Charges for sanitation started earlier in November 2001 with 6,803 consumers.

4. Assets at the beginning of the contract were estimated at US\$ 500,000 and transfers from the municipality in 2001 amounted to CO\$ 643,594,968 (approximately US\$ 268,100).

5. *Technical and operational aspects.* There are two sources for water intake in Maicao: the Carraipia River from which 60-100 l/s are extracted in average, and two groundwater wells with capacities of 40 l/s and 60 l/s respectively. At the beginning of the contract the treatment plant was not in service due to the fact that the electro- mechanical devices were deteriorated. Raw water was distributed to the population without any kind of treatment.

6. The transmission pipelines (18" and 20") were in regular conditions and leakage was frequent due to perforations in the system and fraudulent connections. Three elevated tanks, with a capacity of 700 m³ each were not in service, and two semi buried tanks with capacities of 190 and 280 m³ were yet operating. The distribution lines (81.6 km) were out of service. Distribution was carried out by vendors that charged between CO\$ 7,500 and CO\$10,000 per m³. The community also took water from private artisan wells without any control.

7. Regarding sanitation infrastructure, 51% of the population had septic tanks and the oxidation lagoon removed up to 50% of the organic solids. There were problems with the pumping station of the oxidation lagoon since the sewerage system required three lagoons and there was only one in operation at conditions that are not optimal.

8. Aguas de la Peninsula has accomplished important progress in providing the service. When the concession was awarded, no connection was getting water from a tap; by the end of 2005, 57% of households were getting water during 7 hours per day. Some households built reservoirs to have continuous water all day long. Before the concession started, the population was forced to buy water from vendors at prices as high as US\$ 4 per cubic meter. In sewerage service, service has generally improved for all. Table 1 shows some operational indicators in the last five years.

Table 1. Operational Indicators Aguas de la Peninsula						
		2001	2002	2003	2004	2005
Water Service						
	Connections	7,838	11,138	11,138	11,717	11,888
	Coverage	37%	54%	54%	57%	57%
	Continuity of the service	0%	29%	29%	29%	29%
Compliance with Water quality regulation		No	Yes	Yes	Yes	Yes
	Metering	0%	0%	0%	0%	20%
Sewerage						
	Connections	4,808	5,000	5,300	5,400	5,500
	Coverage	23%	24%	25%	26%	26%

9. Investments in water supply amount to CO\$ 24,606 million pesos since the year 2001, from which 3,6% have been undertaken by the operator in the following works: rehabilitation of the intake infrastructure, optimization of wells and its interconnection, rehabilitation of the treatment plant, construction of a new conduction line (30 km), construction of a macro-metering system, installation of regulatory valves, upgrading of collecting tanks, upgrading of trunk lines and junctions with secondary lines, installation of valves and maintenance of the network. In the year 2005 the treatment plant was upgraded and water quality is now fitted for human consumption. The coverage of the water supply network went from 37% in 2001 to 76% in 2005; however, coverage of the service is 57% because of some problems in the connection.

10. In sanitation, investments amount to CO\$ 26,766 million and coverage went from 23% in 2001 to 49% in 2005. Overall, the investment during the last five years has been of US\$ 24 million; 41% of it has been funded by the Department of La Guajira, 29% by the National Government, 12% by the Municipality, 12% by CORPOGUAJIRA, and 6% by the operator (Table 2).

<i>Table 2. Total Investment Aguas de la Peninsula</i>						
(million US\$)	Total	National Government	Department	Municipality	Corpoguajira	Operator
<i>Investment</i>						
Water	10,588	2,964	5,147	2,098	-	378
Sewerage	11,518	3,845	3,867	848	2,953	5
Design, supervision	2,182	215	946	67	-	954
Total	24,288	7,025	9,960	3,013	2,953	1,337
<i>Percentages</i>						
Water	100%	28.0%	48.6%	19.8%	0.0%	3.6%

Sewerage	100%	33.4%	33.6%	7.4%	25.6%	0.0%
Design, supervision	100%	9.9%	43.4%	3.1%	0.0%	43.7%
<i>Total</i>	<i>100%</i>	<i>28.9%</i>	<i>41.0%</i>	<i>12.4%</i>	<i>12.2%</i>	<i>5.5%</i>

11. *Financial performance and monitoring indicators.* Financial indicators show a poor financial situation, though they present some improvement. Operational income has been negative during the whole period. Only when municipal transfers are included, the balance becomes positive, showing slight net income of less than 1% of revenues. Expenses have exceeded revenues, even when depreciation is excluded, for more than 20% in the period. The account receivables correspond to about one year of billing. Estimated unaccounted for water is about 60% and there are no micro-meters installed.

12. To date, the operator has not gotten any return on this operation. The measures of profitability are negative in the first four years of the concession both for the operator and for the company. As it was expected in this type of concession, profit is predictable for the long run and the contract period is long enough to reward the operator (Financial Statements are presented in Annex 9).

13. Other indicators appear to be at acceptable levels, such as liquidity ratio, and debt indicators. However the high level of liquidity ratio is not a result of good performance but rather to inefficiency of collecting accounts receivables. Debt indicators also show results within the recommended limits; however, liabilities consist of more than 80% of current liabilities, and not mainly to suppliers but to government, shareholders, and others (Table 3. Financial Indicators Aguas de la Peninsula 2002-2005).

<i>Table 3. Financial Indicators. Aguas de la Peninsula 2002-2005</i>				
	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>
<i>Operating Ratio (incl. depreciations)</i>	1.81	2.09	1.39	1.48
<i>Working Ratio (excl. depreciations)</i>	1.81	1.75	1.36	1.20
<i>Accounts Receivable Comparator (months)</i>	7	12	13	12
<i>Labor productivity</i>	-	5.5	4.9	4.4
<i>Liquidity Ratio</i>	6.6	1.9	2.4	3.3
<i>Debt as % of equity</i>	0.10	0.43	0.68	0.53
<i>Liabilities/Assets</i>	0.09	0.30	0.41	0.34
<i>liabilities/Operating Income</i>	0.20	0.81	0.67	0.41

14. Although the operation contract defined specific goals, the delay in the preliminary works and the problems encountered didn't allow these targets to be accomplished. After eight amendments to the contract, targets such as coverage, quality and continuity were affected but were not revised in the contract. For the proposed Project these targets need to be revised to ensure that the investments in works are reflected in the performance indicators and to achieve efficiency in the provision of service.

<i>Table 4. Monitoring indicators for the Specialized Operator as established in the contract</i>						
<i>Indicators</i>		<i>Base line value</i>	<i>Minimum targeted value expected</i>			
			<i>End of 2nd year</i>	<i>End of 4th year</i>	<i>End of 5th year</i>	<i>Full Impact</i>
<i>Service to all</i>	% of housing connected to piped water	< 60	target >65 54*	target >75 57*	target >80 57*	>90
	% of housing connected to public sewerage	<40	target >50 27*	target >60 27*	target >65 27*	>80
	% of housing with continuous supply	<50	target >65 29*	target >75 29*	target >80 29*	>90
	% housing with potable water supply	<50	target >65 54*	target >75 57*	target >80 57*	>90
<i>Service to the poor</i>	% of housing in Strata 1,2,3 connected to piped water	<40	target >50 53	target >70 53*	target >80 53*	>90
	% of housing in Strata 1,2,3 connected to public sewerage	<40	target >50 20*	target >70 20*	target >75 20*	>80
<i>Efficiency of Service</i>	# of employees per thousand water supply costumers	>8	target <6 3	target <4 3.5	target <4 3.5	<4
<i>Sustainability of Service</i>	Working ratio	>1.0	target <0.7 1.0*	target <0.7 0.52	target <0.6 0.33	<0.5

* Unmet targets

15. Regardless of service improvement, people continue with the culture of no payment, which is reflected in the decrease in the collection revenue that went from 24% in the year 2004 to 17% in the year 2005. The working ratio and labor productivity improved and is within the standards recommended for a water company.

Aguas de la Guajira – Municipality of Riohacha

16, Initial conditions of the contract. The contract was signed in 2001 for a period of 20 years, and the municipality is a shareholder of the company with 20% participation on its capital. The municipality and the operator have not complied fully with the terms of the contract for a number of reasons: (i) the municipality did not have a total inventory of the assets at the beginning of the contract; (ii) there were delays in passing on the assets to the operator; (iii) transfer of the resources from the municipality to the operator was not totally undertaken as stipulated in Law 715/2001; (iv) approval of the annual and 5-annual plans submitted by Aguas de La Guajira was granted by the municipality after 6 months of being received; (v) delays in hiring the supervision of the concession; (vi) floods in the sanitation system during rainy seasons due to problems in the pumping station; (vii) macro-meters were not installed; and (viii) the water quality water did not comply with the national norms.

17. Regarding administrative aspects, the number of people working in the company at the beginning of the contract was 54 including administrative, operational and technical and in the year 2005 it doubled its number because more people were hired to work for solid waste management, which was a new activity for the company included in the concession contract.

18. The Municipality was committed to transfer 80% of the 20% of the total amount received from the National Government, with the exception of the resources corresponding to the year 2001, which were earmarked as counterpart funding for the sanitation system of Riohacha, as stipulated in an agreement with MAVDT and the Department of La Guajira.

19. *Technical and operational aspects.* The main water source of Riohacha is the Tapias River from which 500 l/s were extracted at the beginning of the contract. During rainy seasons, the river flow increased and the intake capacity of the system was diminished. The treatment plant was in regular condition.

20. There were difficulties in accessing the control points of the transmission lines due to a lack of accessibility to the areas where the pipes are installed. The indigenous communities living in these areas manipulate the valves for consumption and agricultural use without any control producing significant water losses. The absence of micro-metering and the culture of wasting water added to the water losses, which was estimated at 70% at the beginning of the contract. The quality of the water was not fitted for human consumption. In 2003 Aguas de la Guajira achieved 64.2% of acceptable microbiologic discharge and in 2005 a new module of the treatment plant was installed, after which 100% potable water is being produced.

21. The estimated demand for Riohacha is 180 liters per inhabitant per day and considering that the population is 130,000 residents, the production of water is estimated at 382 l/s. However, in some cases the network produced 500 l/s and the problems with pressure and continuity persisted because considerable amounts of water were being wasted. The number of consumers at the beginning of the contract was 15,314, from which only 2,498 had meters.

22. Aguas de la Guajira divided in three sectors the municipality of Riohacha and rotates one sector that doesn't receive service during the week. With this measure, the continuity of the service went from 6 hours a day in 2001 to 12 hours a day in 2005. Currently 75% of wastewater is treated and sewerage coverage is approximately 60%.

<i>Table 5. Operational Indicators Aguas de la Guajira</i>					
	2001	2002	2003	2004	2005
<i>Water Service</i>					
Connections	13,091	13,318	13,550	13,786	13,979
Continuity of the service (hours per day)	6	6	8	10	12
Compliance with Water quality regulation	No	No	No	Yes	Yes
UFW	80%	80%	80%	70%	67%
Metering	0%	0%	0%	0%	24%
<i>Sewerage</i>					
Connections	9,636	9,803	9,974	10,782	11,614
Waste water treatment	0%	0%	0%	0%	0%

23. In 2003, an agreement between Aguas de la Guajira, MAVDT, the Municipality of Riohacha and the Department of La Guajira was signed to finance the investments of infrastructure works for an amount of 8,050 million pesos as part of the Bank financed Water Sector Reform Project. Most of the works have been carried out including upgrading of the intake system, construction of a pre-treatment system, optimization of the first module of the treatment plant, construction of the second module of the treatment plant and expansion of the sewerage system.

24. Total investment in the water and sanitation network has been of \$US 6.5 million, of which 29% has been funded by the National Government, 31% by the Department, 19% by the Municipality, 12% by CORPOGUAJIRA, and 9% by the operator. The distribution of the resources is as follows: 21.65% for the water supply infrastructure and 78.4% in sanitation.

25. *Financial performance and monitoring indicators.* The financial indicators show a poor financial situation. Operating expenses have exceeded billed revenues in the last three years; the revenue collection rate is around 54%, from which 87% account receivables correspond to more than one year of billing. The liquidity ratio is higher than one due to the high account receivables. The debt indicators are within reasonable limits.

<i>Table 6. Financial Indicators. Aguas de la Guajira 2003-2005</i>			
	2003	2004	2005
<i>Operating Ratio (incl. Depreciations)</i>	1.02	1.58	1.25
<i>Working Ratio (excl. depreciations)</i>	0.71	1.03	0.84
<i>Accounts Receivable Comparator (months)</i>	9.54	12.57	10.06
<i>Liquidity Ratio</i>	2.68	3.26	5.16
<i>Debt as % of equity</i>	0.42	0.37	0.24
<i>Liabilities/Assets</i>	0.30	0.27	0.20
<i>liabilities/Operating Income</i>	0.32	0.37	0.20

<i>Table 7. Monitoring indicators for the Specialized Operator as established in the contract</i>						
<i>Indicators</i>		<i>Base line value</i>	<i>Minimum targeted value expected</i>			
			<i>End of 2nd year</i>	<i>End of 4th year</i>	<i>End of 5th year</i>	<i>Full impact</i>
<i>Service to all</i>	% of housing connected to piped water	< 60	target >65 60*	target >75 80	target >80 93	>90
	% of housing connected to public sewerage	<40	target >50 40*	target >60 65	target >65 70.8	>80
	% of housing with continuous supply	<50	target >65 35*	target >75 40*	target >80 50*	>90
	% housing with potable water supply	<50	target >65 0*	target >75 75	target >80 90	>90
<i>Service to the poor</i>	% of housing in Strata 1,2,3 connected to piped water	<40	target >50 52	target >70 60*	target >80 70.8*	>90
	% of housing in Strata 1,2,3 connected to public sewerage	<40	target >50 40*	target >70 52*	target >75 63.9*	>80
<i>Efficiency of Service</i>	# of employees per thousand water supply costumers	>8	target <6 4.5	target <4 3.9	target <4 3.9	<4
<i>Sustainability of Service</i>	Working ratio	>1.0	target <0.7 0.56	target <0.7 0.9*	target <0.6 0.6	<0.5
*Unmet targets						

26. Though the operating ratio went from 1.58 in 2004 to 1.25 in 2005, the operational costs and expenses continue to be higher than the revenue, living a small margin for operation. The operator has complied with the reduction of unaccounted for water, which went from 80% in 2001 to 54.7% in 2005.

Overall performance of the Specialized Operators in Riohacha and Maicao

27. Aguas de la Guajira and Aguas de la Peninsula had encountered problems in the operation, in part because the Municipalities of Maicao and Riohacha did not comply with some of the initial conditions of the contract as such as transferring the resources from Law 715. Therefore, the indicators that were established in the contract were not fully accomplished. Despite of this situation, Aguas de la Guajira has fulfilled the targets regarding water supply coverage and sanitation.

28. The Specialized Operators have demonstrated a good technical capacity to implement the works; however, this has not been reflected in the improvement of their commercial system. There is a need to increase the collection ratio and recover the account receivables more efficiently, specially in the case of Aguas de la Peninsula in Maicao, which shows a collection rate of 17%.

29. It is clear that the partial improvement of water supply services, which still show some deficiencies, is not enough to promote the payment from the consumers. The problem is aggravated when it becomes chronic and when the local authorities tolerate this situation due to political reasons. Thus, it becomes an institutional problem and is not only the operator that is responsible for the collection rate but also the local authorities who need to show more commitment on this issue to help alleviate the situation.

30. Since the model of the Specialized Operators in Maicao and Riohacha is based on negative- subsidy concession in which public subsidies are passed to the Specialized Operator for capital investment, it can be reversed if the Municipality compensates the operator with more subsidies instead of promoting the payment of the service among residents. This problem produces a contrary effect when the operators see that they can obtain more resources from the Municipality on subsidies instead of trying to collect the account receivables from the consumers.

31. To avoid this, a widespread campaign for promoting the sensible use of water and its consecutive payment is needed to break up this cycle. The participation of local authorities and NGOs is key for reaching out to the community before and during Project implementation.

32. For the implementation of the proposed Project the performance and monitoring indicators need to be revised and the transfers from the Government, as stipulated in Law 715/2001, need to be guaranteed so that the works can be undertaken as planned and the results expected are in line with the investment.

Annex 15: Pilot Rural Component Description
**COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project**

Introduction

1. The Rural Pilot Program for the first Phase (APL 1) of the Water Infrastructure and Service Management Program would aim to establish a replicable model or models to improve access to water and sanitation services in the rural areas of La Guajira where the predominant form of habitation of indigenous people is in isolated “*rancherías*”. The Pilot approach would be based upon the facilitation of a participatory process for solution design and management with the Wayúu community, developing appropriate technical solutions and an adequate institutional framework to guarantee the sustainability of the Project.
2. The proposed Rural Pilot Program was formulated with the participation of the following institutions: (a) the Ministry of Housing, Environment and Territorial Development; (b) the Pan American Health Organization, (c) SENA Regional Guajira; (d) the University of La Guajira; (e) the Regional Corporation of La Guajira CORPOGUAJIRA; (f) CORDES Foundation; (g) Secretary of Indigenous Affairs of La Guajira (SAI); and (h) representatives of the municipalities of Uribia and Manaure.
3. The preparation studies for the Rural Pilot Activities included field visits to the *rancherías*, which were selected by the participating institutions based on the following criteria:
 - a) Location. The sub-projects are targeted to the indigenous people located in the rural areas of Uribia and Manaure.
 - b) Intercultural Aspects. The proposed solutions will be discussed with the beneficiaries of the Project taking into account the world view (*cosmovisión*) and the traditions of the Wayúu.
 - c) Diversity in Technologies. The sub-projects will implement a variety of technologies that have been tested and applied in other rural areas in Latin America.
 - d) Holistic and Comprehensive Approach. The Project will promote integrated solutions for water supply, sanitation and housing improvement.
 - e) Sustainability of Solutions. The sub-projects will guarantee the coverage of operation and maintenance costs as well as an adequate and permanent use of the solutions; vi) Scaling up potential.
 - f) Impact. The sub-projects will benefit a great number of population in the areas of influence.
4. Once selected, the pilot projects will be phased in two-by-two to ensure the institutional capacity to develop a comprehensive Indigenous Peoples Plan (IPP) for each selected site. The sites will be prioritized by the SAI (in dialogue with the PIU), considering the following factors: (a) existing leadership within community/pilot project area (b) evidence of past collective action/collaboration towards a common goal and (c) receptivity and openness to project (i.e. willingness to contribute to the development of sustainable and appropriate water solutions). These factors would be considered in order to begin the pilot component with activities that have a relatively higher probability of success. The IPPF would be continually revised based on learning-by-doing to refine the participatory methodology for achieving sustainable and appropriate water solutions in the rural areas.

General Description of Candidate Pilot Sites

5. During preparation, the Bank, Department, and Government identified 16 potential candidate sub-project areas to pilot integrated solutions in the *rancherías* located in the municipalities of Uribia and Manaure. Were all 16 sites to be included under the operation, approximately 24,650 residents would benefit from improved basic services. Of the 16 candidate sites, eleven locations were prioritized based on the selection to criteria to benefit approximately 19,825 residents.

6. Table 1 identifies the candidate sites for consideration under the first phase of the APL.

Table 1: Candidate Pilot Sites		
Candidate Site Location	Population	Prioritized Y/ N
Municipality of Uribia		
Cabo de la Vela	1,650	Yes
Puerto Nuevo	700	Yes
Portete	250	No
Mauripao	1,500	Yes
Puerto Estrella	1,800	No
Nazareth	6,000	Yes
Buenvista	1,835	Yes
Mapuaquito	1,350	No
Siapana	5,700	Yes
Porshina	220	Yes
Municipality of Manaure		
Aremasain	2,200	Yes
La Gloria	520	Yes
Mayapo	550	Yes
El Pajaro	700	No
Musichi	450	Yes
Sabana Zona Centro	700	No

7. Each sub-project includes four activities: (a) formulation of social aspects of the sub-project; (b) infrastructure investment; (c) institutional arrangements; and (iv) hygiene education.

8. Formulation of Social Aspects of the Sub-Project. With an intercultural approach, this activity consists of a participatory process with the Wayúu community to be developed in four stages:

- a) *Participatory diagnosis of the characteristics of water supply and sanitation sector.* This diagnosis includes workshops with the Wayúu community in environmental health, water supply, sanitation, hygiene education inside the Wayúu house and in school classrooms. A result of this activity will be the formation of focus groups with community leaders interested in the Project, including people engaged in the health sector, the police inspector of the area, teachers at Wayúu schools, community leaders involved in water supply activities and women that are leaders in the community. The focus group will be a communication mean with the rest of the community during Project preparation.
- b) *Analysis of information.* This stage includes an analysis of the information obtained in the participatory diagnosis and the technical information obtained by the consultant. The

purpose of this workshop will be to reflect on the impacts of improving the water supply and sanitation infrastructure on the community and their health. Another aspect to be discussed with the community is the allocation of transferred resources in the water sector, the participation of the municipality in supplying basic services, the administration of transferred resources in the *resguardo* (reserve), and the use of funds from the general participation system with specific destination in the water and sanitation sector.

- c) *Socialization of the information.* A facilitator will promote the presentation of the results of the participatory diagnosis and analysis of the information to the rest of the community.
- d) *Formulation of the sub-project.* The facilitator will explain to the focus groups the steps for formulating a Project and the dimensions required including technical, institutional and educational. In the first two dimensions, the participants will analyze the infrastructure requirements, investment costs, impacts on health, and operation and maintenance costs to guarantee its sustainability. The third one entails education in hygiene outside and inside the house and analysis of the implications of the new services in the community.

9. Infrastructure. Investment activities would include studies, technical designs, construction of works and supervision. The design and studies will take into consideration the recommendations and the results of the formulation of social aspects of the sub-project, as well as the technical specifications and procedures defined in the technical manual for water and sanitation Projects.

10. Institutional arrangements. The objective of this activity is the conformation of a community micro-enterprise that will manage the operation of the water supply and sanitation service. This process comprises the following steps:

- a) Participatory diagnosis of water supply and sanitation sector
- b) Feasibility studies of technical, administrative, legal and financial aspects of the micro-enterprise.
- c) Socialization of the proposed structure of the micro-enterprise
- d) Conformation of the micro-enterprise and contractual agreements with the municipality and the *resguardo*.
- e) Technical assistance in basic management, operation of the infrastructure works, entrepreneurial management and implementation of a software system for the micro-enterprise.
- f) Monitoring of the micro-enterprise during the first six months.

11. Hygiene education. This activity aims to improve the knowledge of water supply and sanitation as a fundamental aspect of the life and health of the Wayúu community. The objectives of this component are: (i) Rescue the costumes, myths and traditions of the Wayúus around the use and protection of water resources; (ii) Identify behavioral patterns and practical uses around sanitation and hygiene and promote the development of healthy costumes; (iii) Inform the community about the operation, maintenance, administration of water supply and sanitation system; (iv) Instruct the teachers at Wayúu schools on the development of an educative program on sanitation and hygiene and incorporated it into the Environmental School Program.

Activities with SENA Regional Guajira

12. SENA Regional Guajira is a governmental organization with more than 30 years of experience working with the Wayúu community assisting them in the maintenance of windmills, construction of artisan wells and developing a healthy housing program with the Pan-American Health Organization.

13. The activities with SENA includes three components: (i) technical assistance in hygiene education and implementation of integral activities for promoting healthy environments in the Wayúu community; (ii) a capacity development program with the Wayúus for implementing preventive and corrective maintenance of windmills, and (iii) a technology transfer activity for manual perforation of small diameter and installation of manual pumps.

14. This program will benefit more than 15,000 inhabitants and about 3,000 rural housing units in the municipalities of Uribia and Manaure. Through technical assistance in organizational, entrepreneurial and technical aspects, the program will have the following outcomes: improved capacity in managing productive activities, community associations, and individual companies; instruction in healthy housing program, improved capacity in operation and maintenance of water supply infrastructure and improved capacity for agricultural production.

15. The program comprises the following steps:

- Socialization of the Pilot program by anthropologist and/or designated member of SAI.
- Formation of an inter-disciplinary team of specialists, including, for example, an anthropologist, social worker, engineer, facilitator (*promotor*) and other relevant technical experts, with at least one of the team members fluent in Wayúu, that will plan, organize and carry out the Indigenous Peoples Plan in collaboration with the community
- Decisions about community contribution and external resource channels
- Training in maintenance activities that would be needed for sustainability

Detailed Cost of the Rural Pilot Program

16. While neither the specific areas of intervention nor the dimensioning of the investment solutions to be financed are known during preparation, the proposed component costs were identified using expected investment costs for the sixteen candidate sites (Table 2). During the first year of implementation, and based on the participatory process outlined above, more detailed cost estimates for each pilot site will be elaborated.

Location	Social Component	Infrastructure	Institutional Arrangements	Hygiene Education	Total
Municipality of Uribia					
Cabo de la Vela	10,870	652,174	26,087	13,043	702,174
Puerto Nuevo	10,870	739,130	26,087	13,043	789,130
Portete	10,870	217,391	8,696	13,043	250,000
Mauripao	10,870	434,783	21,739	13,043	480,435
Puerto Estrella	13,043	478,261	26,087	13,043	530,434
Nazareth	13,043	391,304	26,087	13,043	443,477
Buenavista	13,043	434,783	8,696	13,043	469,565
Mapuaquito	13,043	456,522	8,696	13,043	491,304
Siapana	13,043	260,870	26,087	13,043	313,043
Porshina	13,043	130,435	8,696	13,043	165,217
Municipality of Manaure					
Aremasain	8,696	391,304	21,739	10,870	432,609
La Gloria	8,696	217,391	21,739	10,870	258,696
Mayapo	8,696	304,348	21,739	10,870	345,653
El Pajaro	8,696	347,826	21,739	10,870	389,131
Musichi	8,696	173,913	8,696	10,870	202,175
Sabana Zona Centro	10,870	304,348	26,087	13,043	354,348
Region-wide Activities					
Capacity Building with SENA					432,853
TOTAL					7,050,244

Detailed Description of Candidate Sub-Project Sites

17. *Cabo de la Vela*

Location: Cabo de la Vela is located an hour and a half north from Uribia. There are about 1,650 residents in this area and approximately 340 housing units. The influx of tourists in this area adds another 5,000 people throughout the year.

General conditions: The existing infrastructure is composed of a well with a capacity of extracting 80 m³/hour of saline water, a (2") distribution pipe line that is installed but has never been used. There is also a reverse osmosis desalination plant that operates 8-12 hours with a capacity to supply water to 25-30% of the population.

Preliminary Infrastructure needed: construction of a catchment, upgrade of transmission pipelines and treatment system, construction of a collecting tank, upgrade of the reverse osmosis desalination plant, installation of domiciliary connections and meters in the tourist areas. Construction of a waste water treatment system is also needed.

18. *Puerto Nuevo*

Location: Puerto Nuevo is inhabited by 700 residents and a transitory population of about 1,100 people dedicated to port activities. Puerto Nuevo has a special customs regimen which needs an adequate supply of basic services to be competitive.

General conditions: There are no wells, *jagueyes*, catchments or collecting tanks in Puerto Nuevo. Residents buy water from supply trucks that come from Maicao or ships that come through the port. There is no electricity in the area.

Preliminary infrastructure needed: construction of an intake and pumping system and transmission pipeline, construction of a collecting tank and construction of a simplified system for waste water treatment.

19. *Portete*

Location: Portete is a *ranchería* located in the rural area of Uribia, about 120 km from el Cerrejón. This is one of the most abandoned and isolated *rancherías* due to the presence of illegal armed groups in the area, a result of which part of the population has been displaced. The population is about 250 residents occupying 50 housing units.

General conditions: There are no wells, *jagueyes*, catchments or collecting tanks. The water comes from supply trucks, at a cost of CO\$ 700,000 per trip. Two desalination plants were purchased but haven't been installed because of violence problems. There is no electricity.

Preliminary Infrastructure needed: construction of an intake and pumping system, transmission pipelines, installation of reverse osmosis treatment plants and construction of a community storage tank. A transport system to distribute water to the dispersed houses is also needed.

20. *Mauripao*

Location: Mauripao is located in the rural area of Uribia, about 150 km from El Cerrejón. There are about 1,300- 1,500 people living in 250 housing units distributed in 15 *rancherías*.

General conditions: The existing infrastructure consists of a well (1,000 meter deep) that was excavated initially for petroleum exploration and is currently out of service. The main water supply source comes from the Mauripao dam that has a capacity of 100,000 m³ and a *jaguey* that has a capacity of 300 m³. The water from the *jaguey* is not treated.

Preliminary Infrastructure needed: construction of a treatment system using filtration in multiple stages, construction of a collecting tank and a public standpoint to supply water to the community. A further study to determine the production capacity of the well and its pumping costs is required. The system for filtrating water in multiple stages is recommended because is easy to operate and maintain.

21. ***Puerto Estrella***

Location: This municipality is located in the rural area of Uribia. With about 270 housing units and 1,800 inhabitants, Puerto Estrella is close to the rural vicinity of Santana, which adds another 25 housing units.

General conditions: raw water is taken from the Ducks Lagoon through a pump motor. Additionally, there is a *jaguey* that is used when there is shortage of water in the lagoon. There is no treatment and problems with storage and distribution are frequent. The CORDES foundation has started the preparation of a water supply project for Puerto Estrella including the vicinity of Santana. The preparation includes topographic studies, technical designs for a storage tank (80m³) and a semi-buried tank.

Preliminary Infrastructure needed: this component will include the construction of the works previously designed and its supervision. In addition, the following infrastructure has been identified: construction of an intake and treatment system; construction of two buried tanks, one elevated tank, transmission pipelines with domiciliary connections in each resident's unit and installation of individual systems for disposing waste water and excretes. It is recommended the construction of a windmill for extracting water.

22. ***Nazareth***

Location: Nazareth is located in the rural area of Uribia, about 160 km from the urban area. Is one of the most populated rural areas with approximately 5,500-6,000 residents and 700 housing units distributed in 15 *rancherías*.

General conditions: the existing infrastructure in Nazareth consists of five wells that are 26 meters deep and generate 5 l/s each. From those five, the wells located close to the hospital and the school are working properly. The quality of the water is not optimal, its capacity to meet the demand is not enough and the community has to buy water in supply trucks. The other 3 wells are not operating because the Gas-oil plant is not in service. There are two collecting tanks (400 m³ and 250 m³) in good conditions but are not used. For water distribution there is a 6" trunk line, and 4" secondary pipe line in bad conditions. The operator that was responsible for operating and maintaining the wells left more than a year ago, tariffs are not being charged and there are no institutional arrangements for managing the sector. A desalination plant with a production capacity of 600 liters per hour has been operating since the year 2000 and is in good conditions.

Preliminary Infrastructure needed: hydro-geological exploration for identifying areas of groundwater reserve, upgrade of water supply pipelines, treatment system and distribution of

water to the vicinities. A program for building sanitary units and septic tanks is required and is also recommended to undertake a healthy housing program.

23. Buenavista

Location: Buenavista is located within the municipality of Uribia, close to the frontier with Venezuela, with approximately 1,895 residents occupying 300 housing units.

General conditions: water is distributed in supply trucks from Maracaibo (Venezuela), and is stored in a public semi-buried tank. The CORDES foundation has carried out a study to build a dam in 29 hectares with a capacity of 900,000 m³. The Project has been consulted with the traditional indigenous authority.

Preliminary infrastructure needed: construction of the catchment, treatment system, transmission pipelines and collecting tanks. The recommended technology for treating the water is through filtration in multiple stages.

24. Mapuaquito

Location: Mapuaquito is located in the municipality of Uribia, close to the Venezuela frontier, with 1,350 residents occupying 220 housing units.

General conditions: the existing infrastructure consists of a well (300 meters deep), which is in regular conditions, produces non-saline water, and has problems in its operation and maintenance. There are also supply trucks that come from Maracaibo. The CORDES foundation carried out studies to build a catchment in an area of 40 hectares with a capacity of 1,000,000 m³. This Project has been consulted and authorized by the traditional indigenous authority.

Preliminary infrastructure needed: construction of the catchment, treatment system, transmission pipelines and collecting tanks. The recommended technology for treating the water is through filtration in multiple stages.

25. Siapana

Location: Siapana is one of the largest and concentrated vicinities located approximately 170 km from the municipality of Uribia, with a population of 5,700 residents occupying 700 housing units. There are approximately 15 *rancherías* in the area of influence.

General conditions: the community takes water from a well, which is 300 meters deep, currently operating with an ACPM power plant that needs maintenance. The existing infrastructure consists of a reverse osmosis desalination plant with a capacity of 0,5 l/s, an semi-buried tank (250 m³) from which three supply trucks take the water to distribute it to the community, and an elevated tank (18 m³) that is not currently in service.

Preliminary infrastructure needed: a geo-electric study is required to identify the existence of groundwater. The works include construction of a treatment system transmission pipelines and infrastructure to collect water in places close to the vicinity to minimize the transportation costs.

26. Porshina

Location: Porshina is located in the rural area of the municipality of Uribia. Its population is dispersed in 70 housing units that are occupied by 220 residents.

General conditions: There is a windmill that produces non-saline water but with low capacity to meet the demand. Water is not treated and there aren't any structures for collecting water. Potable water is supplied in supply trucks sent by the municipality.

Preliminary infrastructure needed: technical studies and designs, construction of works and supervision; hydro-geological studies to identify areas for underground water. The works include: construction of a well with a larger capacity, a windmill to pump the water and a collection system (elevated tanks or semi-buried tanks). It is necessary to implement a system to transport water that minimizes the cost and maximizes the continuity of the service.

27. ***Aremasain***

Location: Aremasain is located 120 km from Manaure. The population consists of approximately 800 residents that occupy 300 housing units distributed in 12 *rancherías*. Additionally there is a boarding school with 1,400 kids.

General conditions: the existing infrastructure consists of 3 wells: the first well is 70 meters deep with a capacity of producing 7 l/s, the second well is 30 meters deep and is not currently in operation due to technical problems with the pumping system, and the third well is 80 meters deep and doesn't have a pumping system. There is an elevated tank (20 m³), currently not in operation due to a filtration problem and a semi-buried tank (200 m³), which is in good conditions. There is an ultraviolet treatment plant with a capacity of treating 4 l/s but is not in service.

Preliminary infrastructure needed: this component includes upgrade of the intake and treatment system, construction of distribution pipelines with domiciliary connection and a system for preliminary treatment and collecting waste water.

28. ***La Gloria***

Location: La Gloria is located 120 km from Manaure. Its population is dispersed in 120 housing units occupied by 520 permanent residents.

General conditions: the existing infrastructure consists of two wells: the first one is 70 meters deep and is operated by a windmill; the second well is 120 meters deep and is operated by a submerged pump to extract water. In addition there is an elevated tank with a capacity of 50 m³ which is in good conditions, a semi-buried tank with a capacity of 100 m³ in regular conditions, and an ultraviolet treatment plant with a capacity of 6 l/s, which is in good conditions but is not in service.

Preliminary infrastructure needed: upgrade of the windmill, elevated tank and semi-buried tank, and construction of a public standpoint for distributing water to the vicinities. A consultation process with the community will establish the need of upgrading the treatment plant and the construction of pipelines, sanitation system and waste water treatment.

29. ***Mayapo***

Location: Mayapo is located 50 km from the municipal urban area of Manaure. It is inhabited by 550 residents occupying 100 housing units.

General conditions: the existing infrastructure consists of two wells (120 meters deep each) operated by windmills that were built by the Texas Petroleum Company, and a third well (80 mts deep) that is currently out of service. The water from the wells is collected in two semi-buried tanks with a capacity of 70 m3 each. Additionally, there is an elevated tank (30 m3) that is in good conditions.

Preliminary infrastructure needed: upgrade of the intake, collection and transmission system; acquisition and installation of a desalination plant and construction of pipelines and domiciliary connections. A sanitation and waste water treatment system is also needed.

30. ***El Pájaro***

Location: El Pájaro is located 27 km from the municipal urban area of Manaure. It is inhabited by 700 residents that occupy 150 housing units distributed in 30 *rancherías*.

General conditions: the existing infrastructure consists of a reverse osmosis desalination plant with a production capacity of 1,000 l/h, currently out of service; an extension of the same plant which is operating since the year 2000; two wells (150 m and 120 m deep) but only one is in operation; two semi-buried tanks for collecting raw water with capacities of 50 m3 and 200 m3; a semi-buried tank with a capacity of 80 m3 for collecting treated water and an elevated tank with a capacity of 40 m3. Saline water is distributed through domiciliary connections and the transmission lines for treated water are not in service.

Preliminary infrastructure needed: upgrade of the intake, collection and transmission system; installation of a desalination plant and construction of distribution pipelines and domiciliary connections. Construction of sanitation and waste water treatment systems is needed.

31. ***Musichi***

Location: Musichi is located 15 km from the municipal urban area of Manaure. There are 100 housing units and 450 permanent residents in this vicinity.

General conditions: the existing infrastructure consists of one *jaguey* with a capacity of collecting 5,000 m3 and one well (110 meters deep) in good conditions. For collecting water there is an elevated tank with a capacity of 30 m3, a superficial tank (10 m3) and a semi-buried tank in regular conditions (80 m3). A desalination plant was installed with a capacity of producing 0,7 l/s and is currently under operation is intermittent.

Preliminary infrastructure needed: upgrade of intake, collection and transmission systems.

32. ***Sabana Central Zone***

Location: Sabana Central Zone is located 55 km from the municipal urban area of Manaure. There are 150 housing units and 700 residents in this vicinity.

General conditions: the existing infrastructure consists of one well (120 meters deep) operated by an electric pump, three wells with a capacity of collecting 70 m3 each, an elevated tank with a

capacity of 40 m³ and a semi-buried tank with a capacity of 200 m³. Non-saline water is distributed through domiciliary connections.

Preliminary infrastructure needed: upgrade of intake, collection and transmission systems.

Annex 16: Statement of Loans and Credits

COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service Management Project

CAS Annex B8 - Colombia

Operations Portfolio (IBRD, IDA and Grants)

As of Date 01/30/2007

Closed Projects		175							
IBRD/IDA *									
Total Disbursed (Active)		670.45							
of which has been repaid		13.09							
Total Disbursed (Closed)		11,251.64							
of which has been repaid		8,883.17							
Total Disbursed (Active + Closed)		11,922.08							
of which has been repaid		8,896.26							
Total Undisbursed (Active)		601.90							
Total Undisbursed (Closed)		0.00							
Total Undisbursed (Active + Closed)		601.90							
Active Projects									
Project ID	Project Name	Last PSR			Fiscal Year	IBRD	Original Amount in US \$ Millions		
		Development Objectives	Implementation Progress	Supervision Rating			IDA	GRANT	Cancel
P088857	CO (CRL2) TAL to support	S	S	S	2005	2			
P051306	CO 1st APL PEACE AND I	S	S	S	2004	30			
P082973	CO APL1-Water & Sanit S	S	S	S	2005	70			
P082167	CO Agricultural Transition f	S	S	S	2005	30			
P074726	CO Bogota Urban Services	S	S	S	2003	100			
P044140	CO CARTAGENA WTR SL	S	S	S	2000	159.38		15	74.38
P091932	CO GEF National Protecte	S	S	S	2006	250			
P082466	CO Integrated Mass Transi	S	S	S	2004	32			
P041642	CO PRODUCTIVE PARTNE	S	S	S	2002	35.47			
P040109	CO PUBLIC FINANC MAN	MS	MS	MS	2001	86.4			
P089443	CO Social Safety Net Proje	S	S	S	2006	7			
P082520	CO Sustainable Developme	S	S	S	2006	40			
P065937	CO WATER SECTOR REF	HS	S	S	2002	260			
P082429	CO-(APL1)Disaster Vulne	S	S	S	2005	80			
P085727	CO-(APL2) Disaster Vulne	S	S	S	2006	200			
P074138	CO-Higher Education - Imp	HS	HS	HS	2003			5.4	
P083075	GEF CO Integrated Nation	S	S	S	2006			15	
P063317	GEF CO-HIGH ANDES	MS	MS	MS	2001	1382.25		35.4	84.38
Overall Result									

Annex 17: Social Issues and Summary of Social Assessment
COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service
Management Project

Introduction

1. Several studies and consultation activities have been undertaken during Project preparation to identify key social, institutional and governance issues affecting the context for the proposed Project. Given the complex social, environmental, economic and political characteristic pervading in La Guajira, these studies and consultations were undertaken both to reduce social risks and to enhance the positive likely social impacts for different stakeholder groups, particularly poor and indigenous women and men. The preparatory work has highlighted some of the social risks associated with the proposed Project and has enabled the Bank to incorporate risk-management measures into Project design³⁴. This annex relies upon the following work:

- ***Social Analysis focused in urban areas:*** As stated earlier in this document, the main study was a social analysis focused on assessing social opportunities and risks for the first phase of the proposed APL, which would invest in the main urban centres within the Department. The complete independent expert assessment of key social issues can be found in Project files and is based on a process of interviews with different institutions, local leaders, indigenous peoples' representatives, beneficiaries/customers in the urban areas and other stakeholders. The main conclusions and recommendations are presented in section three of this annex.
- ***Social Assessment, Consultation and Participation in rural indigenous areas:*** The first phase of the proposed APL includes a component to finance pilot interventions in the rural indigenous areas as demonstration Projects - to be replicated under APL II. Any intervention in these areas requires a special approach to ensure the development process fully respects the dignity, human rights, economies and cultures of Indigenous women and men, in full compliance with the Bank's Safeguard Policy on Indigenous Peoples (OP 4.10). Given that the specific pilot sub-projects will be selected during Project implementation, an Indigenous Peoples Planning Framework (IPPF) has been prepared by the borrower. The draft IPPF has also been disclosed to relevant government authorities and key stakeholders for comments. Based on these comments, the IPPF will be revised and publicly disclosed in both Spanish and Wayunaiki (the language spoken by 97% of the Wayúu). The IPPF can be found in the Project files.
- ***Resettlement Policy Framework:*** The potential impact of resettlement in this Project is expected to be extremely limited and absolutely no resettlement will take place as a result of Component 2 (Rural Pilot Projects). In the urban areas and in rural areas affected by urban or peri-urban investments, there is a slight chance that works will require the involuntary taking of land that results in (a) relocation or loss of shelter, (b) loss of assets or access to assets, or (c) the loss of income sources or means of livelihood (whether or not the affected persons must move to another location), subproject resettlement plans would be prepared and submitted to the Bank for approval. The designated staff contracted by the Specialized Operators (or working with the Specialized Operators) would screen projects for unavoidable involuntary resettlement and the PIU would be responsible for ensuring that (a) thorough

³⁴ The conceptual framework for social analysis presented in the Social Analysis Sourcebook, 2004 for the incorporation of social dimensions into Bank-supported Projects has been used in this approach.

screening of each investment program (subproject) takes place and (b) prompt financing and budgeting for resettlement plan be provided (when resettlement will be necessary), (c) the resettlement plan is submitted to the Bank for approval before the subproject is accepted for Bank financing, and (d) the resettlement plans is designed and implemented in accordance with the provisions of the RPF.

- **Consultations and social aspects of other analytical work:** Other upstream work undertaken as part of Project preparation, includes: (i) Environmental Assessment and consultation and dissemination of environmental work activities; ii) independent assessment of the performance of the operators; iii) departmental WSS sector development plan; and iv) information generated during Project preparatory missions and discussions with the borrower, existing operators and other stakeholders and institutions.

2. The above studies and activities have thrown several recommendations and contain important information on the main challenges and actions that will be required during Project implementation to ensure that the proposed water and sanitation interventions benefit the poor in a sustainable way. Their main conclusions and recommendations are included in this annex and have also been reflected in the institutional and implementation arrangements and M&E framework for the Project. The social analysis has looked at opportunities, constraints and likely impacts brought about by the proposed Project in this first phase. The Bank feels confident that the Project will not have adverse impacts on vulnerable groups (poor people, women, youth, indigenous peoples), that potential social risks have been comprehensively identified, and that the Project's design incorporates adequate mechanisms that will contribute to their mitigation.

Social, Institutional and Political Context in La Guajira³⁵

3. The Wayúu. The indigenous Wayúu people occupy a territory which spans from the peninsula of La Guajira to the Gulf of Maracaibo in Venezuela and they move freely between the two countries. The Constitution of Colombia explicitly recognizes double citizenship for those native peoples who regularly cross Colombian borders. The Department of La Guajira has some of the most progressive policies in terms of respecting and promoting ethnic and cultural diversity. Of all departments, it has the second largest indigenous population (representing 19% of the total national population); it is the third most concentrated indigenous population. 32% of the total population of 459,326 (156,046) are indigenous, primarily Wayúu (149,273), Koguis (5,757), Arhuacos (936) and Wiwas (80)³⁶. The Wayuu belong the Arawak linguistic group, while the Koguis, Arhuacos, and Wiwas belong to the *chibcha* linguistic group.

4. Approximately 87% of the indigenous population of the Department enjoys legal recognition of its lands. The Wayúu population lives primarily within 16 indigenous reserves distributed in 10 of the 15 municipalities of la Guajira while the Kogui, Arhuaca and Wiwa people inhabit a reserve that includes the municipalities of Dibulla and San Juan de Cesar and extends into the Department of Magdalena. The remaining 13% of the Wayúu people inhabit the indigenous reserve of Carraipía, nationally owned nonproductive land, and private landholdings.

5. The indigenous reserves of La Guajira are among the largest in the country, including the reserve in Alta Guajira of 1,067,505 hectares with 121,469 inhabitants, which includes the entirety of the municipalities of Uribia and Manaure as well as parts of the municipalities of Riohacha and Maicao. The Wayúu community has a strong sense of ethnic identity and has a well

³⁵ Contains information from La Guajira Department Development Plan, 2004-2008

³⁶ Arango and Sánchez 2004:56

established system of social organization and culture. The Wayúu have their own language, *wayunaiki*.

6. Social Organization. The Wayúu have a social organizational structure based on matrilineal identification organized around clans. The Wayúu are organized spatially in basic family units belonging to nuclear families and inhabiting “*rancherías*” or small dispersed settlements, whose members are linked through maternal lineage. Each *ranchería* is governed by the brother of the mother, or maternal uncle. Given that the Wayúu are polygamous, one head of family may have various residences based on the number of wives he may have. Nuclear families are grouped into large, extended families by domestic unit, based on maternal lineage and governed by the eldest brother of the grandmother. All of the extended family members are thus organized in a single clan, all of whom share the same surname³⁷.

7. Political Organization. Among the Wayúu, there is no institution which regulates relationship between individuals or clans. Each family is managed internally by the maternal uncle, who exercise social control and maintain relations among family members, but relationship between clans are governed only by a series of norms and traditional beliefs, with the elder maternal uncles responsible for enforcement and a tradition of charging monetary and non-monetary damages for offenses committed among the Wayúu.³⁸

8. Spatial Distribution and Territorial Control. The Wayúu live a dispersed, semi-nomadic lifestyle, inhabiting isolated homes and *rancherías*. The Wayúu are often poliresidential, with migratory patterns based on climatic conditions, the availability of water, and subsistence needs. Polygamy is often a reason for the multi-residentiality of the Wayuu, and interfamily disputes often result in displacement. During the dry season, many Wayúu move to Maracaibo in search of water and employment, returning to their homes in La Guajira at the start of the rainy season. While anthropological studies affirm that it is impossible to define specific zones of residence for the distinct clans³⁹, recent analysis indicates that the mobility of the Wayúu is based on some patterns of limited territorial rights of each group of families.⁴⁰

9. These territorial rights have been established over time and are related to the presence of existing clan-based indigenous cemeteries. Based on data from the binational Wayúu census of 1992, Uribe contains 1906 *rancherías* and Manaure 459, equivalent to 75% of the total of 3144 Wayúu settlements in the Department⁴¹. In general, *rancherías* comprise five or six homes, pens for animals, orchards, and a cemetery. Some include local windmills for pumping groundwater or *jagüeyes*, small catchments for harvesting rainwater.⁴²

10. As stated above, la Guajira is one of the least developed and most impoverished of Colombia’s 32 departments and the population of approximately 520,000– approximately 42% of whom are indigenous Wayúu people – is among the country’s poorest; the majority of the population lives in conditions of extreme poverty, with almost the totality of the Department’s

³⁷ Friedemann y Arocha: 1982: 314-315

³⁸ “Crimes” include offenses against honor, robbery, assault, and murder. Compensation usually includes livestock (cows, goats, and sheep), necklaces, cash payments, and textiles, with the amount being based on the seriousness of the offense. In the case of the death of a Wayúu when agreement cannot be reached as to compensation, the victim’s clan will often declare open warfare against the clan of the accused.

³⁹ Friedemann y Arocha 1982:317

⁴⁰ Universidad de la Guajira 1996:11

⁴¹ Universidad de la Guajira 96:6

⁴² Vergara 1990:146

inhabitants being classified in Strata 1, 2 and 3 according to the national stratification system. The Wayúu have lived in La Guajira for more than 3,000 years and have cultural and political traditions are deeply rooted. They also, for the most part, live in conditions of considerable hardship with almost no access to basic public services.

11. The Department is one of the richest regions in the country in terms of natural resources with the world's largest open-cut coal mine – El Cerrejón – which generates approximately US\$ 50 million per annum in royalties from the exploitation of coal and coal related products. However, this important revenue source has historically not been matched by the capacity of the Department's leaders to materialize it into adequate infrastructure and an acceptable level of public services for the Department's population. The Department faces a host of structural problems rooted in a historic lack of long-term vision and strategic planning, and unstable economic growth. Despite a current high volume of royalty revenues from extractive industry, the backlog of needed investment and low levels of human capital development, combined with problems of governance and accountability, make the La Guajira a particularly challenging case. Education, health, transport, water and sanitation and other basic services are largely underdeveloped both in the urban and rural areas and investment in infrastructure has been inadequately planned, insufficient and poorly maintained.

12. Of the many challenges for fostering development faced by the Department, the water and sanitation sector is the most pressing, since water is scarcely available in most areas of the Department and this is perceived by the public to be a major problem, especially in the dry climate of La Guajira. Sector performance – in spite of recent improvements introduced by the private operators - is still very deficient, due to the combination of poor management of services by the municipalities, low-impact and poorly maintained investments, and the scarcity and lack of reliability of water sources. In urban areas, service coverage is very low by Colombian standards – 68.2% of the population has water connections and only 35.1% of the population has a sewerage connection (compared with a national average of 88.3% and 74%) and problems with continuity of service and the quality of water supplied by piped networks are widespread. In rural areas, the Wayúu remain largely underserved and the challenge of providing access to Wayúu communities requires approaches that are highly participatory and carefully tailored to the Wayúu political, social, institutional and cultural systems.

Project Social Risks and Risk-Management Measures and Mitigation Factors

The table below summarizes the major potential social risks identified and the risk-management measures and mitigation factors.

Risk	Description of Risk	Risk management measure/ mitigating factor	Risk rating ⁴³
Increased inequality and/or perception of social injustice	<p>The Project is structured around a two-phase APL, with Phase I focused on urban and peri-urban areas and Phase II focused on supporting rural water and sanitation solutions in the indigenous areas. Although this structure reflects the different complexity levels in terms of the necessary preparatory work in the two areas, as well as the readiness for implementation of the investments, it also signifies a delay in addressing the needs of the poorest and most vulnerable and historically neglected people in La Guajira, where social exclusion and marginalization levels are most acute.</p> <p>There are historic demands from the Wayúu people, who have long standing complaints and claims on human rights violation, social exclusion and discrimination from the regional authorities including supposed forced displacements to allow the expansion of mining activities and the lack of compliance with promises to provide them with access to basic services. The Wayúu people have suffered further displacements and attacks from illegal armed groups. In this context, the prioritisation of investment in the urban areas over the rural could exacerbate the inequality and increase the existing social tensions and overall feeling of exclusion and injustice of the Wayúu people.</p>	<p>The need for a phased approach needs to be properly and explicitly explained by the Departmental authorities to the population of La Guajira, in particular the rural Wayúu communities. A communication and outreach campaign will to be designed and put in place during the first year of the Project - along with measures to improve the publicity, transparency and regularity of information sharing with the public in the future, especially the Wayúu. During Phase I, as well as the pilot sub-projects, Bank support would be utilized to consolidate a departmental vision for rural solutions as well as a wide consultation process with the Wayúu communities to ensure the participation of the Wayúu in the development process. Triggers for the advance towards Phase II of the APL would be linked to the readiness of the Department in addressing the rural water supply and sanitation agenda in a manner consistent with sustainable service provision and in the context of the Department's highly dispersed indigenous population. The initiation of preparation of Phase II of the APL is likely to begin during the implementation period of Phase I and, in fact, implementation of Phase II could begin as soon as the triggers are met without waiting for the completion of Phase I. The triggers are:</p> <ul style="list-style-type: none"> • The completion of a detailed assessment of rural and indigenous needs, including a comprehensive Indigenous People's Plan. • The finalization and publication of a departmental rural water supply strategy that takes into consideration the result of the indigenous people needs assessment and consultation process. • The development of an institutional arrangement for service delivery and the management and maintenance of rural water supply and sanitation investments. • Successful completion of four rural pilots. 	High

⁴³ Risk rating after mitigation measures

Risk	Description of Risk	Risk management measure/ mitigating factor	Risk rating ⁴³
		<p>Because the Phase II rural water supply and sanitation agenda will be developed through a consultative process and adopt a more community driven development (CDD) approach, it is possible that it will be embedded within a multi-sectoral investment program that would address a broader range of investment demands by rural indigenous communities.</p>	
<p>Governance, transparency and political economy issues and low public trust in Departmental Government Institutions</p>	<p>La Guajira is historically tainted with long standing governance concerns and cases of patronage and political clientelism that call for improvement in basic government effectiveness and efficiency, transparency and accountability. There are to date continuous claims in the media and in the streets about corruption issues. These governance issues could result in Project expenditure being inefficient and ultimately not addressing the needs of the populations in the participating municipalities.</p> <p>The outlined lack of confidence from the public in the Departmental authorities could mean that the institutional reforms introduced by this Project that require a change in public awareness and behaviour (cost recovery mechanism, introduction of metering, playing more of a controlling role to increase public accountability through actively following publications etc.) don't find echo in the civil society and provoke opposition from the public.</p>	<p>The Departmental Government has stated its commitment toward more transparent and accountable public institutions, and this Project supports many improvements in all of these areas. The proposed fiduciary and flow-of funds arrangements will signify a solid gain in transparency and protection against misuse of funds, improving the accountability for resource allocation within the Department and make the public sector more responsive to citizens. However, the fight against corruption will depend fundamentally on sustained political will to translate technical changes into real improvements in administrative practice, together with outreach efforts to build public trust. The use of competitive procurement following bank guidelines and the increased publicity and transparency incorporated in Project implementation arrangements will strengthen the efficiency and transparency of public expenditure management and improve service delivery outcomes - which will in its turn help to improve and restore citizen trust in local government.</p>	Moderate

Risk	Description of Risk	Risk management measure/ mitigating factor	Risk rating ⁴³
Limited technical and administrative capacity within the Department	<p>The lack of sufficient oversight capacity on the public sector could result in weak planning, implementation and monitoring of the Project and negatively affect the quality of the investments and implementation arrangements. This would mean the infrastructure created under the Project being inadequately designed, operated and maintained and the increased access and improvement in service provision not being achieved, undermining the Project social benefits. Insufficient capacity at the Departmental Government level could also constitute a risk of capture from the private operators and non-compliance with the agreed upon targets and contractual obligations given insufficient enforcement.</p>	<p>Project design includes a number of measures to support the establishment of the appropriate capacity and support structures (including the establishment of a dedicated unit within the Department) to mitigate the risks resulting from current lack of capacity.</p> <p>The participation of the specialized private operators in Project implementation with proved track-record and experience, provided the sufficient oversight and M&E capacity in place, will ensure the quality of investments and operation and maintenance.</p>	Low ⁴⁴
Social opposition to metering and lack of willingness to pay resulting in lack of cost recovery of O&M costs investment costs to recuperation of	<p>The success of the Project relies very much on the public accepting and understanding that a good quality service will require commitment from the public to paying the tariffs and changes of behaviour to ensure cost recovery efforts to ensure financial sustainability allowing an adequate operation and maintenance and expansion of the investments by the private operators. This could face opposition from the users, and ultimately, non-payment and inability to collect the fees from the public. Experience in the water sector shows that the lack of willingness to pay is especially acute in places where users have traditionally not been billed – as in some neighbourhoods in Maicao and Riohacha - and charged for the services, where regardless of service improvement, people continue with the culture of no payment, which is reflected in the decrease in the collection revenue that went from 24% in the year 2004 to 17% in the year 2005. This is partly explained by a lack of understanding and a general perception that the service is “free” is the case in many of the beneficiary municipalities covered by the Project. This will pose a clear risk during implementation and undermine Project objectives and addressing it will require efforts and strong leadership on the part of the operators.</p> <p>The Project will also finance investments in metering. This measure poses two challenges and/or potential risks: i) the ownership and commitment to its implementation at the</p>	<p>The Departmental Government and operators are committed to working with the public perception and service users to manage the risk of public-acceptance. The unit within the Department dedicated to Project implementation and supervision will ensure the operators comply with this commitment. A public awareness, information and dissemination program involving work with community members and users and inform the population about service cost and use, service quality, and downstream activities relating to the service implemented by the operators has already started during Project preparation and will be strengthened in the first year of the Project.</p>	High

⁴⁴ This risk has been rated low but is of course conditioned on the Departmental Government finalizing the steps towards establishing the dedicated unit

Risk	Description of Risk	Risk management measure/ mitigating factor	Risk rating ⁴³
	municipal level by the operators will be key to its success; and ii), the acceptance of this measure by the general public and users may not be easy at first and may take time. The past experience in Maicao and Riohacha show a negative first reaction of the public to metering for the first time and it has not been an easy task. Since generally the non-metered fee is lower and based on an estimated consumption, users see their bills go up. Also, experience shows that users have not been always properly informed about why this is, and there is a high incidence of metering breakage, and stealing.		
Lack of sufficient effort on Cost Recovery from the operators	Since the model of the Specialized Operators in Maicao and Riohacha is based on negative- subsidy concession in which public subsidies are passed to the Specialized Operator for capital investment, it could be reversed if the Municipality compensates the operator with more subsidies instead of promoting the payment of the service among residents. This problem produces a contrary effect when the operators see that they can obtain more resources from the Municipality on subsidies instead of trying to collect the account receivables from the consumers.	As well as the campaign for promoting the sensible use of water and its consecutive payment, a solid supervision and reinforcement mechanism has been designed and is key to breaking this cycle. Collection performance and efforts from the operators will be closely monitored by the Departmental dedicated unit.	Moderate
Non-compliance with Bank safeguard policies and other negative social impacts at a sub-project level	Some of the sub-projects financed under the loan could potentially mean a non-compliance with Banks social safeguard policies or create any other adverse social impact, such as an exacerbation of disparities of gender, ethnicity, religion, language and geography.	The use of a framework to screen the Projects from a social and environmental impact assessment perspective has been agreed with the Government as part of the “rules of the game” for the financing of investments under the loan. The use of the prior screening mechanism would ensure that non-compliance with any of Bank social safeguard policies –i.e. indigenous people, involuntary resettlement, etc. is spotted, as well as any other adverse social impact brought about by the sub-project. At this stage, the borrower and the Bank would be able to confirm that existing policy frameworks, mitigation plans, organizational capacity and other actions needed to comply with the safeguard policies and mitigate and or manage adverse impacts have been addressed satisfactorily.	Moderate
A potential reduction in employment given the deepening of	There are currently a number of informal service providers and mechanism for the provision of water supply - street vendors, private operators of desalination plants who then sell to the public (without necessarily a legal license),	During the first year of Project implementation, a thorough analysis of the formal and informal water and sanitation markets will be undertaken in order to identify opportunities and risks, as well as measuring the impact of establishing a	Low

Risk	Description of Risk	Risk management measure/ mitigating factor	Risk rating ⁴³
the sector structure around a formal market for water and sanitation services	mostly in peri-urban and marginal urban neighbourhoods. These informal businesses have been developed given the historic lack of formal service provision in the above areas, and might be displaced if and when the formal concessionaires reach the currently unattended areas.	formal water supply market on employment, service quality, customer satisfaction, etc. The study will propose any necessary mitigation measures based on the assessment and importance of these impacts.	

Annex 18: Fiscal Analysis of the Department of La Guajira

COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service Management Project

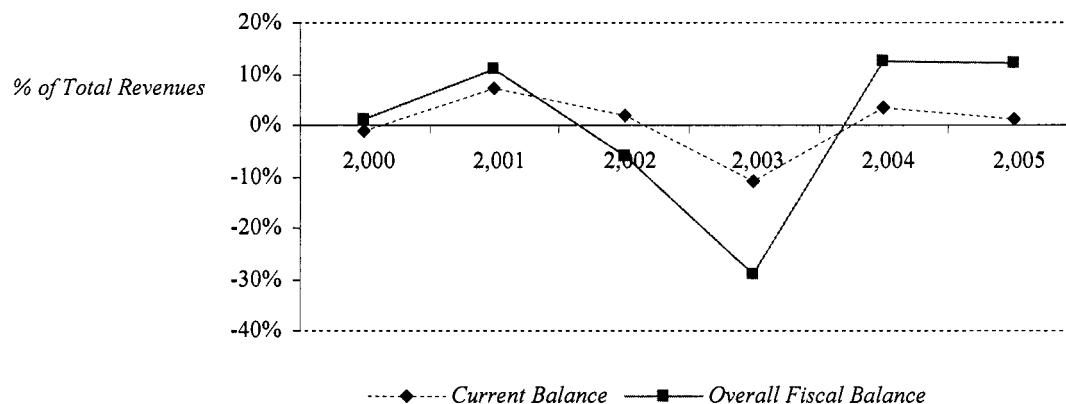
1. This Annex discusses the fiscal situation of the Department of La Guajira and assesses its medium and long term fiscal perspectives. The capacity of the Department to absorb the required financing is evaluated in terms of the impact of this operation on selected fiscal indicators and public debt sustainability. The annex presents the current fiscal framework established by law by the National government, and reviews the Department's fiscal performance over the last six years (2000-2005) within this framework. The medium and long term perspective is evaluated in a sixteen year framework (2007–2022). Sensitivity and risk analyses are carried out to evaluate the impact of the Project on overall fiscal performance, and to test results on the indicators established by law. This annex will help National and Department authorities monitor the impact of unforeseen changes and evaluate the need for adjustment.

Fiscal Situation 2000-2005

2. The Department of La Guajira had a positive current balance in all years with the exception of 2000 and 2003, when deficits were 1% and 11% of total revenues, respectively (Figure 1). In 2002 and 2003 the fiscal situation was poor. 2003 own revenues were half of their 2001 level, while expenses were 1.8 times higher, producing an overall fiscal deficit of 30% of total revenues. In 2004 and 2005 the trend reversed and overall surpluses of 13% and 12% of total revenues, respectively, were generated.

Figure 1

Historical Account Balance and Overall Fiscal Balance



3. During the observed period, own revenues decreased 30% and expenditures declined 52%, allowing the Department to move from a deficit in 2000 to a surplus in 2005 (Table 1. Fiscal Situation 2000-2005). Current savings to own revenues were zero in 2000 and 2003, while in other years (2001 and 2004) were close to 40%. General administrative expenses maintained their share of about 70% of current expenses, but the distribution among administrative expenditures changed: services increased from 35% to 69% and transfers expenses decreased from 46% to 5%. Social investment in 2005 was three times higher than in 2000 and capital expenditures increased four-fold. These increases kept pace with the rise of transfers from the

national government. Total investment, including both social and capital expenditures, was on average 80% of total revenues.⁴⁵

Table 1. Fiscal Situation 2000-2005 (Million nominal Col \$)

	2000	2001	2002	2003	2004	2005
1. Own Revenue	20,964	37,095	24,057	20,026	26,561	14,824
1.1 Tax Revenues	16,513	19,967	19,975	19,668	17,179	13,773
1.2 Non tax Revenue	4,451	17,128	4,082	358	9,382	1,052
2. Expenses	22,154	23,456	20,769	42,504	16,877	10,608
2.1 General administrative expenses	14,865	16,866	16,868	39,157	16,020	10,510
2.1.1 Services	5,254	7,347	4,577	8,828	6,287	7,279
2.1.2 General expenses	2,799	5,443	2,269	1,572	2,090	2,669
2.1.3 Others (transfers to Entities, personnel and pension funds)	6,811	4,077	10,022	28,757	7,643	562
2.2 Financial Expenses	7,289	6,589	3,901	3,346	857	98
Interest	7,289	6,589	3,901	3,346	857	98
3. Current Balance (1-2)	(1,189)	13,639	3,288	(22,477)	9,685	4,217
4. Other Revenues	96,410	152,469	151,737	184,608	249,524	364,840
4.1 Transfers from National Govt	61,009	67,286	79,816	88,079	134,223	174,317
4.2 Royalties	34,749	80,724	69,055	95,253	113,360	145,308
4.3 Others	653	4,459	2,866	1,275	1,941	45,215
5. Investment	93,801	145,613	165,832	221,525	224,351	322,796
5.1 Social Investment	73,385	104,981	64,530	-	170,560	245,325
5.2 Capital Expenditure	20,416	40,632	101,302	221,525	53,791	77,471
6. Primary Balance	8,708	27,085	(6,906)	(56,049)	35,714	46,358
7. Overall Financial Balance	1,419	20,495	(10,807)	(59,395)	34,857	46,260
Stock of Debt	49,108	41,951	30,078	11,966	3,760	-

Note: Changes in the debt stock don't match the deficits because in some years when the department complied with certain requirements, the central government eliminated some debt that was contracted with them.

4. The Department of La Guajira managed the deficit in 2002 and 2003 with by accumulating arrears; no additional loans were needed to pay for its financial commitments (Table 2). The debt, which corresponded to 42% of total revenues in 2000, was fully paid by 2005.

Table 2. Financial Balance 2000-2005 (million nominal Col \$)

	2000	2001	2002	2003	2004	2005
Financing	(1,419)	(20,495)	10,807	59,395	(34,857)	(46,260)
Domestic Debt	(4,913)	(4,805)	(10,137)	(11,605)	(6,831)	-
Disbursement	-	-	-	80	-	-
Amortization of Principal	(4,913)	(4,805)	(10,137)	(11,685)	(6,831)	-
Other Sources	(3,493)	15,690	(20,944)	(70,999)	28,026	46,260
Increase(Decrease)Financial Certificates	(3,493)	15,690	(20,944)	(70,999)	28,026	46,260

⁴⁵ Investment includes transfers from the central government to pay teachers. The government uses a broad definition of investment.

5. Financial expenses decreased gradually from 6% of total revenues to zero in 2004. When amortization of capital is included, the percentage decreased from 10% in 2000 to zero in 2005. (Table 3).

Table 3. Indicators

	2000	2001	2002	2003	2004	2005
<i>Revenue Indicators</i>						
Own Revenues/ Total Revenues	18%	20%	14%	10%	10%	4%
Royalties/ Total Revenues	30%	43%	39%	47%	41%	38%
Transfers/Total Revenues	53%	38%	47%	44%	49%	58%
<i>Expenses Indicators</i>						
Current expenses/Own revenues	106%	63%	86%	212%	64%	72%
Current expenses (w/o interest)/Own revenues	71%	45%	70%	196%	60%	71%
<i>Investment Indicator</i>						
Total Investment/Total Revenue	80%	77%	94%	108%	81%	85%
<i>Financial Results</i>						
Current Balance/Total Revenues	-1%	7%	2%	-11%	4%	1%
Current Savings/own revenue	0%	37%	14%	0%	36%	28%
Primary Balance/Total Revenues	7%	14%	-4%	-27%	13%	12%
Overall Financial Result/Total Revenue	1%	11%	-6%	-29%	13%	12%
<i>Debt Indicators</i>						
Debt Stock/Revenue	42%	22%	17%	6%	1%	0%
Debt Service/Total Revenue	10%	6%	8%	7%	3%	0%
Financial expenses/Total Revenue	6%	3%	2%	2%	0%	0%

Revenues

6. The resources of the Department of La Guajira consist of own revenues and funds transferred from the National government. Own revenues are comprised of tax and non-tax sources; while transfers from the National government include: (i) funds allocated according to the National Participation System (SNP) defined by law⁴⁶, and (ii) royalties generated by the exploitation of natural resources in the region (mainly coal and natural gas). While the own revenues share of total income decreased from 18% in 2000 to 4% in 2005, royalties participation increased from 30% to 38%, and transfers from SNP from 53% to 58% (Table 4).

7. The Department has experienced problems with illegal imports of a number of goods, producing a negative impact on current revenues. The most significant losses are from taxes on cigarettes, liquor (other than beer), and gas, which have decreased 82%, 39% and 44% respectively. Beer sales have not been affected by illegal imports, however, as consumption is mainly of domestic brands. Revenue from beer taxes almost tripled during the period, but this was not enough to compensate for the decrease in income from taxes on other products. As a result own revenues declined 30% from 2000 to 2005 (Table 4).

8. Transfers from the national government as part of the National Participation System in 2005 were three times as high as they were in 2000, and royalties also increased four-fold. While transfers (both from SNP and royalties) have always been the main source of income for the Department, their share in total revenues increased so much that by 2005 they were practically the only source of financing on which the Department counted.

⁴⁶ Law 60 of 1993 and Law 715 of 2001

Table 4. Total Revenues 2000-2005 (Million nominal Col \$)

	2000	2001	2002	2003	2004	2005
1. Total Revenue	117,374	189,564	175,794	204,634	276,085	379,664
1.1 Own Revenues	20,964	37,095	24,057	20,026	26,561	14,824
1.1.1 Tax Revenues	16,513	19,967	19,975	19,668	17,179	13,773
Cigarette tax	9,154	12,764	4,498	950	1,280	1,637
Beer tax	3,252	3,356	5,226	7,284	6,932	9,519
Other Liquor tax	783	1,389	814	325	502	474
Vehicles tax	513	651	482	528	584	652
Stamps	629	845	672	676	353	266
Gas Tax	2,182	962	8,283	9,905	7,527	1,224
Others	-	-	-	-	-	-
1.1.2 Non tax Revenue	4,451	7,074	428	358	9,382	1,052
Income from services& operation	4,451	7,074	428	358	9,382	1,052
1.1.3 Other	-	10,054	3,654	-	-	-
1.2 Transfer from National government	96,410	152,469	151,737	184,608	249,524	364,840
1.2.1 Natl Participation System (SNP)	61,009	67,286	79,816	88,079	134,223	174,317
1.2.2 Royalties	34,749	80,724	69,055	95,253	113,360	145,308
1.2.2.1 Coal	-	47,108	31,626	32,980	56,658	52,770
1.2.2.2 Gas	-	32,104	37,429	62,274	56,703	92,539
1.2.2.3 Other	-	1,513	-	-	-	-
1.2.2 Others	653	4,459	2,866	1,275	1,941	45,215

Current Fiscal Framework

9. The National Government has issued legislation in order to: (i) regulate the use of funds transferred to the regions to guarantee appropriate social and capital investment; and (ii) enforce a sound fiscal situation in the region.

- (i) To achieve the first objective – regulation of the use of funds – the legislation states that: (a) one hundred percent of royalties must be invested in priority projects presented in the development plan of the region. Additionally, if the region does not comply with the minimum level of coverage in water and sanitation, infant mortality, education, and health, the region has to invest at least 50% of royalty transfers in these sectors; (b) transfers from the National Participation System are to be invested as follows: 58.5% education; 24.5% in health, water and sanitation; and 17% in general purposes according with guidelines established by law.
- (ii) To achieve a sound fiscal situation, the regulation focuses on three main issues: (a) efficiency of public expenditure⁴⁷; (b) debt sustainability⁴⁸; and (c) fiscal responsibility⁴⁹. To meet this objective, the regulation establishes minimum levels for some indicators that all public entities must attain. The indicator levels are as follows⁵⁰:

⁴⁷ Law 617 of 2000

⁴⁸ Law 358 of 1997

⁴⁹ Law 819 of 2003

⁵⁰ The indicators are the same for all public entities, but levels vary according to type of entity. The figures presented in this annex correspond to the ones applied to the Department of Guajira.

- General Management Expenses/Own revenues according to Law 617 of 2000, which establishes the methodology for calculating annual revenues, expenditures and ceilings; explained in detail below.
- Financial Expenses/Operational Balance must be ≤ 0.4 . Operational balance is defined as the difference between total resources (minus transfers from SNP) and general management expenditures.
- Debt Stock/Total Revenues must be < 0.8 .
- Primary Surplus/Financial expenses, must be ≥ 1.0 . Primary Balance is defined as the difference between total revenues (own revenues plus transfers plus capital income (other than loans, equity, privatization)) and total expenditures (excluding financial expenses and transfer expenditures) plus capital expenditures (investment).
- For medium and long-term evaluation, the previous indicator is to be calculated using not only financial expenses but amortization of capital as well. The indicator should be greater than 1.

10. The *Contraloría General de la República* was appointed by Law to supervise and evaluate regulation compliance. The Ministry of Finance (*Ministerio de Hacienda*) and the National Planning Department (*Departamento Nacional de Planeación*, DNP) evaluate compliance as well. In the case of non-fulfillment, two measures can be taken by the National Government: (i) the funds to be transferred are retained until certain conditions imposed by any of these entities are met; or (ii) the new loan is not allowed and the National Government will not issue any warranty to support any debt.

11. As Table 5 shows, from 2000 to 2003 the Department of La Guajira complied only with debt indicators, and in 2004 and 2005 it complied with all indicators. The annual fiscal evaluation conducted by the National Planning Department (DNP) for to all public entities⁵¹ ranked the Department of Guajira 27th out of 32 Departments in 2003, and upgraded it to 9th place⁵² in 2004.

Table 5. Fiscal situation according to indicators defined in the National Fiscal Framework

	Ceilings set by Law	Department of Guajira Performance					
		2000	2001	2002	2003	2004	2005
<i>Financial Expenses/operational balance</i>	≤ 0.4	0.1	0.1	0.0	0.0	0.0	0.0
<i>Debt Stock/Total Revenue</i>	< 0.8	0.4	0.2	0.2	0.1	0.0	-
<i>Primary Surplus/Financial Expenses</i>	≥ 1.0	1.2	4.1	-1.8	-16.8	41.7	474
<i>Primary Surplus/Debt Service</i>	≥ 1.0	0.7	2.4	-0.5	-3.7	4.6	474

Revenues and Current Expenditures according to Law 617

12. Regarding the rules for efficiency of public expenditure, Law 617 of 2000 establishes: (i) specific ways to calculate revenues (consisting only of revenues without use restrictions) and

⁵¹ Departamento Nacional de Planeación. *Balance de Desempeño Fiscal de los Municipios y Departamentos 2000-2003*. Octubre 2004

⁵² For the previous years the ranking was as follows, 2000: 26th, 2001: 6th, 2002: 21st, 2003: 27th, and 2004: 9th. When writing this annex the DNP was finishing 2005 evaluation and did not have the results yet.

current expenditures (consisting only of those financed by non-earmarked resources); and (ii) ceilings on discretionary current expenditures of the Department, as well as on transfers made from the Department to its Assembly and Comptroller's Office .

13. The Department must abide by the ceilings in order to contract debt. La Guajira hasn't complied with this law since it was enacted, but there has been progress on some fronts (See Table 6). Transfers to the Assembly decreased from \$CO 1,559 million in 2000 to \$CO 1,179 million in 2005, and transfers to the Comptroller's Office also decreased from \$CO 933 million in 2000 to \$CO 483 million in 2005, which is below the legal limit. On the other hand, other current expenditures have remained relatively high due to payments to the pension system. Law 812 of 2003 established that departments could use up to 10 percent of royalties to pay for transfers to the pension system.

14. The department and the Central Government worked together on a fiscal adjustment plan, which was approved last year and currently is under implementation. Under such program La Guajira will comply with Law 617 of 2000 and the Central government has authorized the department to contract debt. The fiscal adjustment plan does the following: La Guajira will use about 111,201 COP million from royalties, 50 percent of the revenues of the stamp tax and additional disposal revenues between 2006 and 2009. In addition in 2006, the department will borrow 15,000 COP million. With these resources the Gobernación plans to pay about 49 percent of the total liabilities and create an autonomous fund. With the proceeds of the fund the Gobernación plans to pay the pensions. In this way, the Department will be able to reduce its pension payments from their balances and thus comply with Law 617 of 2000. La Guajira's medium-term fiscal adjustment plan incorporates measures to finance all liabilities.

Table 6. La Guajira and Law 617 of 2000

(COP Million)	2001	2002	2003	2004	2005
1. Unrestricted Income according to Law 617 (1.1-1.2)	18,471	12,423	11,263	11,188	13,491
- 1.1 Unrestricted Income	19,443	13,216	12,111	12,161	14,825
- 1.2 FONPET (9 percent of Disposable Income)	972	793	848	973	1,334
2. Expenditures according to Law 617	11,266	13,794	12,248	12,337	13,953
3. Expenditure/unrestricted income (2/1)	61%	111%	109%	110%	103
4. Limit established by law 617	85%	80%	75%	70%	70%
Compliance?	Yes	No	No	No	No
6. Difference	-24%	31%	34%	40%	33%
7. Transfers to Assembly	1,559	1,558	1,243	1,048	1,179
8. Limit established by Law 617	992	1,071	1,042	880	1,052
Compliance?	No	No	No	No	No
9. Difference	567	487	201	168	127
10. Transfers to Comptrollers Office	930	751	706	466	483
11. Limit establish by Law 617	683	460	417	414	489
Compliance?	No	No	No	No	Yes
12. Difference	247	291	289	52	-6

Source: DAF

Projected Fiscal Situation 2006-2015

15. **Assumptions.** To project the fiscal situation the 2006 budget was used, and from 2007 on the following assumptions were applied:

Table 7. Assumptions for projection

<i>Item</i>	<i>Assumption</i>
<i>Inflation rate</i>	4.5%: 2007; 3.5%: 2008; 3.0% thereafter
<i>Exchange rate</i>	Depreciation rate same as inflation rate
<i>Population</i>	Growth rate for the Department of Guajira 1.74% per year according to DANE (<i>Departamento Administrativo Nal de Estadística</i>)
<i>GDP</i>	2.5% annual increase.
<i>Revenues</i>	
<i>Own Revenues</i>	
<i>Tax Revenues</i>	
Cigarette	Increases with inflation and GDP
Beer	Increases with inflation and GDP
Gas	Increases with inflation and GDP
Liquor (other than beer)	Increases with inflation
Stamps & Others	Increases with inflation
<i>Non-Tax Revenues</i>	Increases with inflation and population growth
<i>Transfers from Nat Gvt from SNP</i>	Increases with inflation and population growth
<i>Royalties</i>	Explained in detail below
<i>Expenditures</i>	
Services	Increases with inflation and population growth
General	Increases with inflation and population growth
Others	Remain at 2005 level
<i>Investment</i>	
Social Investment	Assumed to be 20% higher than transfers from SNP
Capital Expenditures	Project cost US\$ 150 from 2007-2010, from 2011 and on average of historical levels (approximately US\$ 25 per year).
<i>Financing</i>	
IRDB	Commitment fee: 0.75%; Interest rate: libor plus 50 b.p. Repayment terms: 17-year total repayment term including a 5-year grace period. Currency US dollars. Loan assumed at US\$ 90 million

16. Royalty revenues are set by Law⁵³. The Ministry of Mines and Energy calculates quarterly based on mine production and the average international price in US dollars at which the sale was made. The calculation is then converted to Colombian currency using the official exchange rate.

17. The royalty corresponds to a percentage of the whole production value as follows: (i) for coal, 10% if production is higher than 3 million tons per year, or 5% otherwise; (ii) for salt, 12% of production; (iii) for natural gas the following formula applies (Table 8):

⁵³ Law 756 of 2002, modified Law 141 of 1994.

Table 8. Percentage of Production Value that applies for Natural Gas Royalty

Thousand of cubic feet per day (KPC)	% Royalty for oil	% of oil royalty applied for natural gas	
		Case 1	Case 2
Daily Production (DP) ≤ 28.5 KPC	8%	80%	60%
28.5 KPC < DP ≤ 712.5 00 KPC	8%+10% over inferior rank	80%	60%
712.5 KPC < DP ≤ 2,280 KPC	20%	80%	60%
2,280 KPC < DP ≤ 3,420 KPC	20% + 25% over inferior limit	80%	60%
DP > 3,420 KPC	25%	80%	60%

Case 1. Exploitation field located at land or at open sea with a deep ≤ 1000 feet (which is the case of La Guajira).

Case 2. Exploitation field located at open sea > 1000 feet.

18. Royalty distribution among regions is as follows:

- Coal: When production is higher than 3 million tons (as in the case of La Guajira), the Department's sharing is 42%; municipalities that produce coal receive 32%; municipalities that have the port to export it, 10%; and for the National Fund of Royalties, 16%. There is an additional rule that applies depending on production level: (i) One hundred percent of the 42% applicable to the Departments is given only for the first 18 million tons of production; (ii) 75% of the 42% is given for production between 18 and 21.5 million; (iii) 50% of the 42% is given between 21.5 and 25 million; and (iv) for more than 25 million it receives 25% of the 42%. This is known as *escalonamiento* of royalties, and was used for the projections.
- Salt: The departments receive 20%, producer municipalities 20%, municipalities containing the port 60%, municipalities not containing the port 5%, and the National Royalty Fund 15%.
- Natural gas: When mine production is higher than 10,000 barrels per day as in the case in La Guajira, the share of royalties for the Departments is 47.5%, for producer municipalities: 25%, for municipalities where port is located: 8%, and for the National Royalty Fund: 19.5%. As happens with coal, there is an additional rule that applies to these percentages according to production level (*escalonamiento* of the royalty), specifically: (i) One hundred percent of the 47.5% applicable to the Departments is given for the first 100,000 barrels per day; and (ii) for production higher than that, the Departments receive 10% of the 47.5% applicable.

19. Projection of royalties was conducted by applying the percentages explained above and assuming the following production levels and international prices:

- Coal Royalties.*
 - Production.* A volume of 25,450 thousand tons per year (based on production of previous years) is assumed. This level is kept constant from 2007 on, even though current capacity is about 27 million tons and it is estimated that it could be increased to 32 million tons.
 - International Price.* Reported by the Ministry of Energy in December 2005 at US\$ 42/ton⁵⁴. It is assumed the price will remain. A factor of 52% is applied to the price for royalty calculation.
- Salt Royalties.* Assumed to be zero for the projections, given the tiny amount it currently represents and its decline in the previous years.
- Gas Royalties.*
 - Production.* A daily production of 73 thousand barrels per day is assumed, which equals 415 million of cubic feet of oil.

⁵⁴ Resolution 561 of 2005. Unidad de Planeación Minero Energética.

b. *International Price*. Assumed at US\$ 2 per thousand of cubic feet of oil.

20. Royalty projection was built under a conservative scenario, given a number of uncertainties it is exposed to, such as international price fluctuations, worldwide competition, problems with production, etc. To measure the impact of the changes of certain variables, the projection results were tested with sensitivity and risk analyses.

21. Projection Results. The summary of the results obtained for the financial projection of La Guajira are presented in Table 8. Results show that La Guajira will attain a positive current balance in the context of a conservative increasing income trend and a modest rise in expenditures during the period observed. Current expenditures (before interest expenses) are about 55% of own revenue, which makes possible a surplus in current savings, even when including interest (Table 9).

Table 9. Overall Balance Projection 2006-2013 (with Project)
(million nominal Col\$)

	2006	2007	2008	2009	2010	2011	2012	2013
Total Revenue	406,504	410,892	431,365	452,618	474,727	497,696	521,570	545,274
Administrat expens	17,567	16,981	17,745	18,544	19,378	20,250	21,161	22,114
Financial Expenses	0	3,111	3,631	6,616	8,660	12,623	13,753	13,276
Investment	388,937	403,682	474,248	479,349	525,089	490,656	476,978	499,765
Current Balance	8,465	8,060	9,109	7,596	5,250	3,824	2,610	4,039
Primary Balance	3,985	-9,771	-60,628	-45,274	-69,740	-13,210	23,431	23,396
Overall Fiscal Bal.	3,985	-12,882	-64,259	-51,891	-78,400	-25,833	9,678	10,119
Debt Stock	7,500	12,610	76,949	129,786	209,527	235,907	226,831	217,291

22. The overall balance is positive after Project implementation (2012 and on). During Project implementation, capital expenditures (project cost) of about US\$ 150 million are included, as well as a World Bank loan of US\$ 90 million. Since by definition primary balance cannot include loan disbursements as revenue, a deficit is expected for those years. The deficit rapidly fades away after 2011, and by 2012 even the accrued financial result is positive.

Table 10. Selective Indicators established by law

		2007	2008	2009	2010	2011	2012	2013
	Ceiling							
Debt Stock/Total Revenue	≤ 0.8	0.0	0.2	0.3	0.4	0.5	0.4	0.4
Primary Surplus/Financial Expenses	≥ 1.0	-3.1	-16.7	-6.8	-8.1	-1.0	1.7	1.8
Primary Surplus/Debt Service	≥ 1.0	-1.6	-9.1	-4.7	-6.0	-0.8	1.4	1.4

23. There are two indicators that fall below the level established by law and those are related to primary surplus (Table 10). The reason for non-compliance is, as explained above, that by definition, primary surplus should include capital expenditure but not the loan that finances it, and thus the balance will be negative during Project implementation. Nevertheless, once the Project is

implemented, the balance is positive with enough room for payment of all financial obligations, and the accrued balance is positive after Project implementation (2011).

24. When the Department of La Guajira takes a loan, the fiscal analysis is enhanced with a debt sustainability analysis and stress test, which are carried out as follows:

Public Sector Debt Sustainability Analysis: Baseline Scenario

In our debt sustainability analysis the following simple budget constraint for a single period was assumed:

$$b_t^{Ext} + b_t^{Int} = i_t - x_t - \sigma_t + \frac{1}{1+z_t} b_{t-1}^{Int} + \frac{\bar{s}_t}{s_{t-1}(1+z_t)} b_{t-1}^{Ext} \quad (1)$$

where $z_t = (1 + g_g)(1 + \pi_t) - 1$, b_t is debt as a share of current revenues, b_t^{int} is internal debt as a share of current revenues, i_t are interest payments as a share of current revenues, x_t is the primary balance as a share of current revenues, \bar{s}_t is the period's average exchange rate, s_t is the end-of-period exchange rate, g_t is the real current revenue growth rate, and π_t is inflation.

25. La Guajira is expected to borrow US\$90 million from the Bank over the 2007-2011 period, which amounts to about 85 percent of the Department's current revenues. The debt will be contracted in US dollars. Since royalties are received in US dollars there is limited risk associated with a shock to the exchange rate.

26. La Guajira's public debt appears to be sustainable under the most likely baseline scenario. It is expected that La Guajira will be able to repay its debt by 2022 (Figure 2).

27. Key assumptions behind the baseline scenario are:

- An average real revenue growth of 0 percent.
- A primary balance of US\$10.4 million after the year 2011. During the Project the government is expected to spend US\$10 million per year. Therefore, it is expected to have on average a primary deficit of US\$20 million over the next four years.
- A 10 percent real exchange rate depreciation accumulative over the Project's lifetime.
- A real interest rate on debt of 4.8 percent.

28. This baseline scenario accounts for recent improvements in the security situation, feasible maintenance of the primary balance, likely depreciation in the exchange rate to historical norms, and possible deterioration in the external environment and growth. Under this scenario, La Guajira's macroeconomic performance can support debt reduction.

29. **Primary balance as a share of GDP.** La Guajira has maintained nearly a balanced budget over the past four years and has invested close to 1 percent of departmental GDP in the water sector. Thus, having a primary balance on average about US\$11 million is feasible. In the

stress tests we assume a shock to coal prices, where the prices decrease from US\$40 to US\$20 per ton. This implies a reduction in royalties of about 15 percent of current revenues, and thus a primary deficit of 15 percent of current revenues.

30. **The real exchange rate.** Colombia's exchange rate is floating, which suggests that the correction is more likely to be gradual than abrupt. Abrupt devaluations oftentimes have occurred under fixed exchange rate regimes when the authorities have attempted to keep the exchange rate stable when fundamentals have deteriorated. Eventually, international reserves are exhausted and a balance of payments crisis ensues. Under floating exchange rate regimes, abrupt devaluations can occur, but the adjustment is usually less dramatic and occurs over a longer period of time. For purposes of the baseline debt scenario, we assume a 10 percent devaluation over the course of the Project.

31. **Interest rates.** The Bank's loan is expected to have an interest rate of Libor plus 0.5, which currently implies an interest rate of 5.9. We assume a real interest rate of 6.0 percent for the duration of the Project under the baseline scenario. In the stress tests we increase the nominal interest rate to about 12 percent.

32. **Inflation.** Inflation has been declining over the last 8 years and now is close to 4.5 percent, a level not seen since the end of the 1960s. As part of the baseline scenario, we assume that Colombia will be able to attain its objective of reducing inflation to 3 percent by 2009.

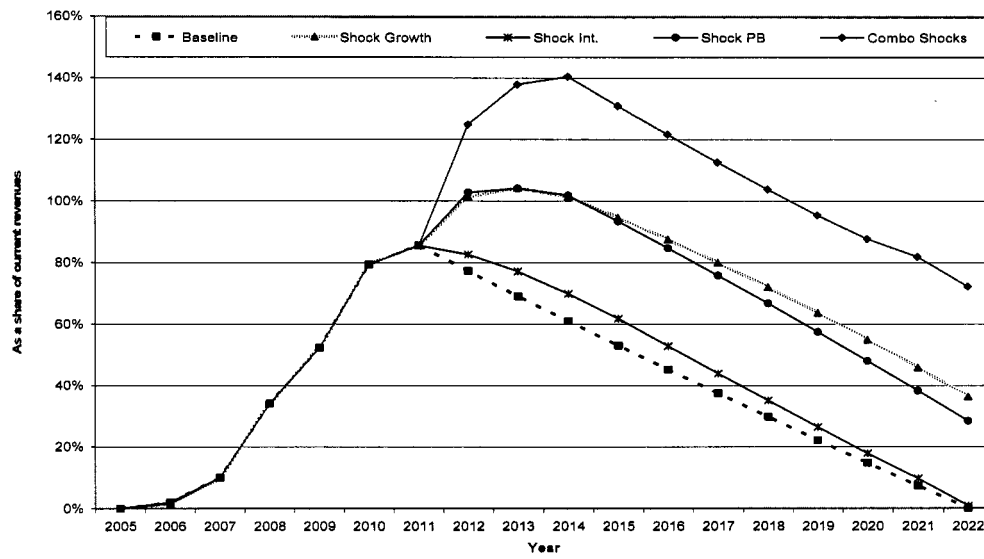
Public Sector Debt Sustainability Analysis: Stress Tests

33. This section gauges the robustness of the baseline analysis by applying various extreme shocks to the model inputs and observing the likely debt path. Even under a combination of economic shocks, public debt to current revenues is not explosive; but the ratio *could* reach above 115 percent of current revenues.⁵⁵ While a crisis would likely be avoided, the shocks would nonetheless entail a significant economic and fiscal adjustment.

34. The shocks are introduced into the baseline model one-by-one and include key macroeconomic variables: current revenues growth, interest rates and the primary balance. The stress tests on overall public debt reveal that La Guajira is particularly vulnerable to low growth, high interest rates and a shock to the primary balance. If these shocks occurred and policy responded to keep primary balances unchanged at about US\$11 million, the government would not be able to repay its debt; but after an initial jump the debt ratio would decline. With each of the individual shocks, the debt ratio would be below 60 percent of current revenues by 2022. With the combination of the two shocks, the ratio would peak slightly above 140 percent of revenues in 2015, and then slowly fall to about 73 percent in 2022 (Figure 2).

⁵⁵ Current revenues excludes royalties.

Figure 2. Debt Sustainability Analysis

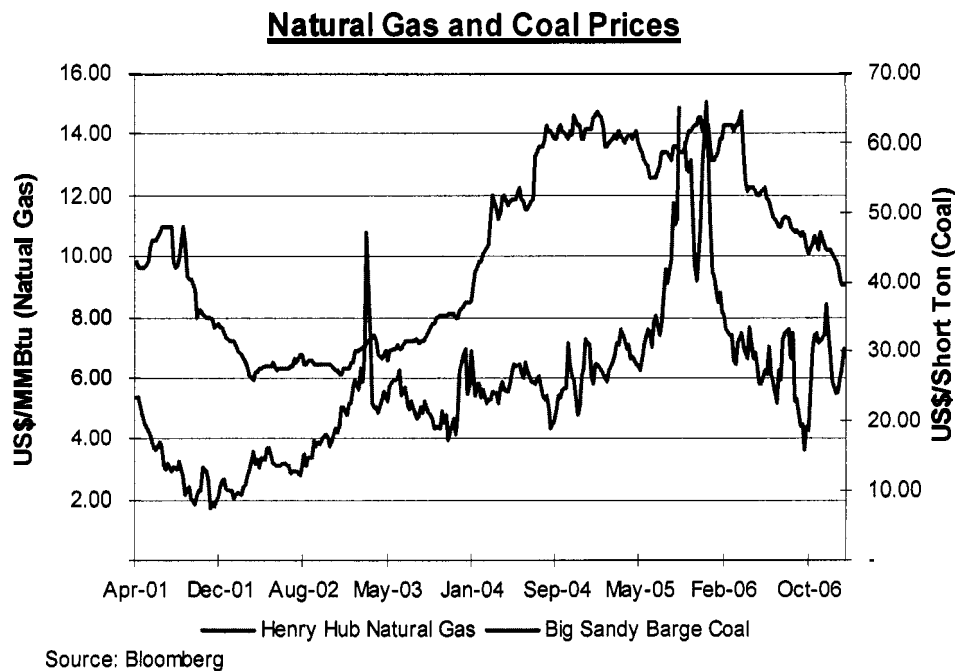


Source: Bank Staff calculations

Annex 19: Potential Financial Structure to Manage the Commodity Price Risk for La Guajira, Colombia

Colombia: La Guajira Water and Sanitation Infrastructure and Service Management Project

1. La Guajira generates a large proportion of its revenues from the exploitation of its natural resources (i.e. coal and natural gas) for which it receives royalties amounting to approximately USD50 million *per annum*. These royalties are highly dependent on both production volumes and coal and natural gas prices, which together help determine the final amount of royalty revenues to be received by La Guajira. In practical terms, and assuming contractually fixed production volumes, this translates in La Guajira's royalty revenues being highly linked to coal and natural gas prices. The prices of these two commodities are highly volatile as the graph below shows. Thus, when international prices for coal and natural gas are high, La Guajira would be expected to receive a larger amount of royalty revenues, the reverse being true when international prices for coal and natural gas are low. Since, as mentioned above, the vast majority of La Guajira's revenues are composed of such royalties, La Guajira's overall financial condition and capacity to service its debt obligations under the proposed loan would, therefore, be positively correlated to international coal and natural gas prices.



2. In order to manage the exposure to commodity price volatility and avoid potential situations in which future royalty revenues were to prove insufficient for La Guajira to meet its debt servicing obligations, the World Bank, together with the MOF and the government of La Guajira could consider “indexing” the loan to international coal and natural gas prices. This would help manage the risk to La Guajira's balance sheet that would result from the inherent mismatch of its sources of revenues and obligations.

IBRD Financial Structure to Manage the Risk of Commodity Prices

3. In the case the MOF and La Guajira choose to use the IBRD loan to manage the risk of commodity prices, the Bank could work closely with both entities to produce a financial structure that that could help achieve this objective. One way of structuring the loan would be to index its service obligations to the price of coal and/or natural gas.

4. Through a new financial structure linked to commodity prices, La Guajira would transfer to the World Bank its inherent exposure to commodity prices, thus achieving a lower level of overall financial risk. The World Bank, in turn, would hedge its resulting exposure to commodity prices by transferring the risk to the market through a derivative transaction with a suitable swap market counterpart. The result of this transaction would be to transform the loan obligation from a regular loan in USD with fixed or floating interest rate to a loan whose service obligations would be linked to coal and natural gas prices, thus reducing the vulnerability to La Guajira's balance sheet.

5. In addition to the risk management benefits outlined above, entering into such financing structure with the World Bank would also allow La Guajira take advantage of (i) the preferential pricing enjoyed by IBRD because of its superior credit rating, (ii) the possibility of structuring such a transaction in longer maturities than the typically offered by other providers of such financing structures; and (iii) the fact that this commodity hedging structure would not utilize any additional credit line.



Annex 20: Letter of Sector Development Policy

COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service Management Project

Riohacha, Febrero 7 de 2007

Señor:
PAUL D. WOLFOWITZ
Presidente
BANCO MUNDIAL
Washington, D.C.

Estimado Señor Wolfowitz:

La Gobernación de La Guajira agradece enormemente el apoyo del Banco Mundial al interesarse en colaborar en gran medida con el mejoramiento de la calidad de vida del pueblo guajiro a través del otorgamiento del préstamo que permita darle una solución a la calidad del agua y la optimización del servicio de agua potable y saneamiento básico a través del "PROGRAMA DE INFRAESTRUCTURA Y GESTIÓN DE LOS SERVICIOS DE AGUA Y SANEAMIENTO PARA EL DEPARTAMENTO DE LA GUAJIRA"; conocido en el ámbito departamental como "LA REVOLUCIÓN DEL AGUA".

No hay duda en cuanto a la importancia y trascendencia que el proyecto representa para la comunidad guajira en general por ser el agua un recurso natural fuente e indicador del progreso de la región. Resultan innegables los beneficios que el agua potable trae a una comunidad como salud, higiene, cultura y educación.

El servicio de agua potable se constituye como un bien y un servicio esencial para el crecimiento y bienestar general de la sociedad, enmarcado ampliamente dentro de los derechos fundamentales consagrados en la Constitución Política de 1.991.

De la mano con la Ley 142 de 1.994 -Régimen de los Servicios Públicos Domiciliarios- se establece pues, la necesidad crear mecanismos apropiados para la financiación de proyectos en agua potable y saneamiento básico, con la finalidad de encontrar los recursos necesarios para solventar las necesidades que en esta materia tiene el Departamento, como es la falta de agua potable a lo largo y ancho de su territorio, centrados en la idea de aumentar los niveles de eficiencia y calidad del servicio, dentro de un marco de inversión que permita la estructuración de una gerencia definida en términos de Optimización de la

Gestión Comercial - Administrativa, expansión de redes, mejoramiento en la producción y tratamiento del agua.

POLITICA SECTORIAL DEPARTAMENTAL

- Suministro del servicio de agua potable y prestación del servicio de saneamiento básico con el cumplimiento de la legislación vigente en materia de calidad de agua que beneficie a todos los ciudadanos del departamento.
- Lograr el mejoramiento de la calidad de vida a partir del suministro de agua de buena calidad, debido a la incidencia que este servicio trae a la sensación de bienestar de la población, además del control enfermedades cuyo origen se colige de los recursos hídricos mal tratados.
- El acceso al servicio público de agua potable y saneamiento básico de un porcentaje cercano 100% de la población.
- Desarrollar una solución definitiva a la población rural indígena asentada en las rancherías que respete las tradiciones propias de la Etnia Wayúu.
- Establecer la sostenibilidad de los proyectos desarrollados para dar solución a las carencias que en el sector presenta el Departamento, constituyéndose así en fuente de desarrollo económico.
- Políticas Institucionales orientadas a la modernización técnica y gerencial de los prestadores de los servicios públicos de agua potable y saneamiento básico mediante el desarrollo de proyectos de trascendencia departamental.
- Política Tecnológica que propenda a la generación y desarrollo de procesos de alta tecnología que apoyen el incremento de los indicadores de calidad, cobertura y continuidad.
- Política Financiera orientada a la optimización y manejo integral de los recursos financieros de los diversos proyectos desarrollados en el sector a nivel de entidades territoriales e institucionales a través de la adquisición de recursos que permitan la ejecución de procesos de diseño, construcción, operación y mantenimiento de los sistemas que componen el servicio del agua potable y saneamiento básico.
- Política Social encaminada a crear el ambiente adecuado de participación ciudadana y a la generación de empresas de servicios públicos comunitarios.

OBJETIVOS ESPECIFICOS DE LAS POLÍTICAS DEL SECTOR

- Mejorar el servicio de agua potable y saneamiento básico en cuanto a calidad, cobertura y continuidad del servicio se refiere, incentivando el incremento de los niveles de eficiencia en la prestación del servicio por parte de las empresas prestadoras.

- Mejoramiento y transformación de la infraestructura existente para la prestación del servicio de agua potable y saneamiento básico.
- Establecer los mecanismos necesarios para proporcionar la debida asistencia técnica en el sector del agua potable.
- Incentivar y promover la capacitación necesaria tendiente a desarrollar una educación ambiental que permita a la ciudadanía manejar adecuadamente sus recursos hídricos.

SECTOR DE AGUA POTABLE Y SANEAMIENTO BASICO

- El Departamento de La Guajira enfrenta grandes retos en materia de agua potable y saneamiento básico, debido a que este sector presenta marcadas deficiencias en cuanto a la calidad del agua, la cual no cumple especificaciones del Decreto 475 de 1.998; y aún falta por superar las debilidades en cobertura y continuidad en la prestación del servicio, sin contar con los problemas en la dificultad de abastecimiento que se presentan en la zona norte del departamento, en la cual debido a su clima desértico.

A consecuencia de lo anterior, resultan innegables los perjuicios que la mala calidad del agua ocasiona en la salud pública.

En todo el departamento se evidencian las malas condiciones de la infraestructura existente.

- El Ministerio de Ambiente, Vivienda y Desarrollo Territorial, a través de la Dirección de Agua Potable y Saneamiento Básico y Ambiental ha desarrollado un plan con un especial énfasis a la prestación del servicio público de agua potable y saneamiento básico en áreas rurales.
- Por tal motivo, y consonancia con los criterios y políticas del Ministerio de Ambiente, Vivienda y Desarrollo Territorial, la Gobernación del Departamento de La Guajira ha otorgado la debida importancia a darle una solución en el abastecimiento y tratamiento de aguas a la población rural del departamento, poniendo especial cuidado en las comunidades indígenas que habitan la región, debido a su importancia cultural.

TRANSPARENCIA, EVALUACION Y CONTROL

- Con la finalidad que las Políticas en el sector del agua potable y saneamiento básico se desarrollen plenamente se hace necesario diseñar procesos que permitan la participación activa de la comunidad mediante audiencias públicas, así como la publicación periódica del avance en la ejecución de los proyectos.

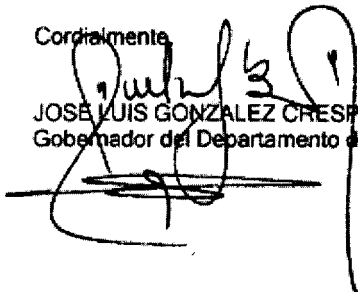
- La publicidad en todos los procesos de contratación y de ejecución de los proyectos desarrollados dentro del PROGRAMA DE INFRAESTRUCTURA Y GESTION DE LOS SERVICIOS PUBLICOS DE AGUA Y SANEAMIENTO BASICO PARA EL DEPARTAMENTO DE LA GUAJIRA a través de el diseño y puesta en marcha de una página web en la que se aprecien claramente los avances realizados.
- La publicación y divulgación de los proyectos, programas, políticas sectoriales en WAYUNAÍKI con la finalidad de propiciar la inclusión activa de la comunidad WAYÚU, y asegurar su participación efectiva.
- La Gerencia de los proyectos a manos de terceros ajenos a los sectores tradicionales de la región propicia la imagen de transparencia en la utilización de los recursos financieros, así como la constitución de un encargo fiduciario que garantice un control en los gastos de los recursos destinados a los diversos proyectos.
- Implementación y ejecución de componentes de seguimiento y evaluaciones a los procesos desarrollados con la finalidad de incrementar la eficiencia y transparencia de las gestiones realizadas.

El Gobierno Departamental se siente plenamente comprometido con la población en general y con el contenido de este documento en el sentido de aunar esfuerzos con entidades internacionales como el Banco Mundial, en la búsqueda de soluciones integrales para el mejoramiento de la calidad de vida y la consecuente erradicación de la pobreza en el Departamento.

De igual forma, La Gobernación del Departamento de la Guajira agradece la pronta consideración por parte de la Dirección del Banco Mundial en el otorgamiento del crédito por valor de NOVENTA MILLONES DE DOLARES para el apoyo del PROGRAMA DE INFRAESTRUTURA Y GESTION DE LOS SERVICIOS DE AGUA Y SANEAMIENTO PARA EL DEPARTAMENTO DE LA GUAJIRA.

Cordialmente,

JOSE LUIS GONZALEZ CRESPO
Gobernador del Departamento de La Guajira.

A large, stylized handwritten signature in black ink, which appears to be "Jose Luis Gonzalez Crespo".



Translation – Original Document in Spanish in Project Files

Riohacha, February 7, 2007

Mr. PAUL D. WOLFOWITZ
President
WORLD BANK
Washington, D.C.

Dear Mr. Wolfowitz:

The Government of the Department of La Guajira is grateful to the World Bank for granting a Loan to develop the water and sanitation sector of the Department, which supports our efforts to improve our citizens' quality of life. The name of the program correspondent to the Loan, which aims to achieve a high level of quality in potable water and sanitation service provision is, "La Guajira Water and Sanitation Infrastructure and Service Management Project," known in the Department as "The Water Revolution."

As water represents both a source and indicator of progress for a region, this Project is undoubtedly of great importance for the community of La Guajira. The benefits that potable water and sanitation bring to a community, such as health, hygiene, culture and education, are undeniable. Potable water service provision, declared a right in Colombia's Constitution of 1991, is an essential factor for the growth and general well-being of society.

In accordance with Law 142 of 1994 (Regime of Domiciliary Public Enterprises), the government of the Department has taken the necessary measures to find appropriate mechanisms to finance potable water and sanitation projects, owing to the need for these services throughout its territory. The principal objectives of the Project are to increase the levels of efficiency, continuity and quality of the services, and to operate within an investment framework that enables a specialized management unit to oversee commercial and administrative issues, network expansion, and improvements in water provision and treatment.

The Water and Sanitation Sector in La Guajira

- The Department faces great challenges in the water and sanitation sector, as water quality, coverage and continuity levels are deficient, and are incompliant with Decree 475 of 1998. The Northern zone of the Department is particularly challenged with regard to water resources owing to its desert-like climate, and in general, water and sanitation infrastructure is in poor condition throughout the Department. Lastly, the low quality of water presents a myriad of public health problems.

- The Ministry of Environment, Housing, and Regional Development (MAVDT), through the Directorate of Potable Water and Basic Sanitation, has developed a plan with a special emphasis on improving these public services both in urban and rural areas.
- In accordance with the criteria and policies of The Ministry of Environment, Housing, and Regional Development, the Department of La Guajira is committed to finding a solution to the critical condition of the water and sanitation sector in rural areas, while respecting the cultural traditions of the indigenous communities that inhabit these areas.

Sector Policy

- Encourage the technical and administrative modernization of the utilities.
- Improve existing water and sanitation infrastructure.
- Stimulate the use of high technology that supports improvements in service quality.
- Build a transparent financing scheme that facilitates the financing of diverse infrastructure projects.
- Develop a suitable atmosphere for citizen participation and for the creation of micro-enterprises in the community.
- Promote educational programs to develop a culture that encourages responsible water resource management.

Specific Objectives of the Policy

- Attain an urban water coverage ratio of 90% and an urban sewerage coverage of 72%.
- Fulfill Colombian legislation in terms of quality and continuity of potable water and sanitation services.
- Establish the necessary mechanisms to provide technical assistance in the sector, as needed.
- Ensure the sustainability of the sub-projects.
- Reduce the rate for waterborne infectious diseases within the beneficiary areas of the Project.
- Develop a model to solve the problem of the lack of water in rural indigenous areas, which respects the traditions of the indigenous population.

Transparency, Monitoring and Evaluation

In accordance with the objective to develop appropriate policies in the sector, processes should encourage the active participation of the community by means of public hearings as well as periodically publish Project status reports. This will be achieved by:

- Translating the main documents of the Project into *Wayunaiki*, with the objective of assuring active participation of the *Wayúu* community; and
- Publishing all contracting processes and status reports on the execution of Project works on the Department's Web Page.

Transparency in the use of funds will be achieved through the participation of a specialized Program Implementation Unit (PIU), an independent entity hired by the Department, and by the use of a fiduciary agent that will control the use of all financial resources.

Monitoring and evaluation frameworks will be integrated into the program with the purpose of increasing the efficiency and transparency of the process.

The Government of the Department is fully committed to its inhabitants, and to the content of this document, in the sense that unifying efforts with international organizations such as the World Bank will further the search for integral solutions that improve quality of life and eradicate poverty in the region.

The government of La Guajira thanks the World Bank for granting the Loan in the amount of NINETY MILLION DOLLARS (US\$90,000,000.00) in support of the "La Guajira Water and Sanitation Infrastructure and Service Management Project."

Sincerely,

JOSÉ LUIS GONZÁLEZ CRESPO
Governor of the Department of La Guajira

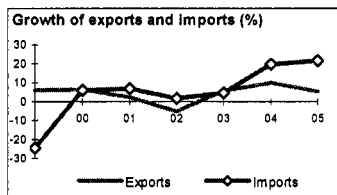
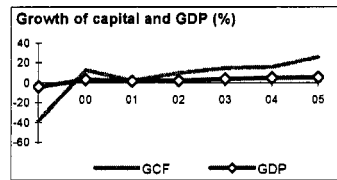
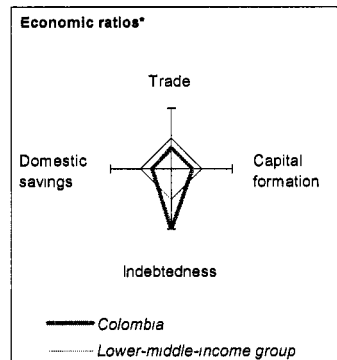
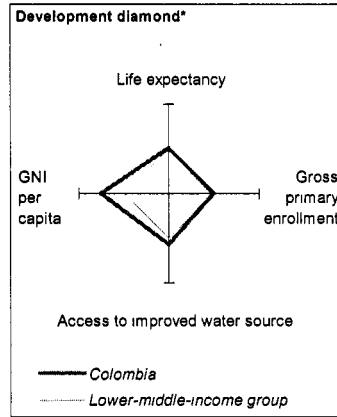
Annex 21: Country at a Glance

COLOMBIA: La Guajira Water and Sanitation Infrastructure and Service Management Project

Colombia at a glance

1/29/07

POVERTY and SOCIAL	Colombia	Latin America & Carib.	Lower-middle-income	
2005				
Population, mid-year (millions)	41.2	546	2,442	
GNI per capita (Atlas method, US\$)	2,550	3,580	1,690	
GNI (Atlas method, US\$ billions)	105.4	1,952	4,116	
Average annual growth, 1999-05				
Population (%)	1.8	1.5	0.9	
Labor force (%)	2.8	2.2	1.4	
Most recent estimate (latest year available, 1999-05)				
Poverty (% of population below national poverty line)	49	..	..
Urban population (% of total population)	77	78	50	
Life expectancy at birth (years)	72	72	71	
Infant mortality (per 1,000 live births)	18	27	32	
Child malnutrition (% of children under 5)	7	..	11	
Access to an improved water source (% of population)	92	89	81	
Literacy (% of population age 15+)	92	89	89	
Gross primary enrollment (% of school-age population)	110	121	112	
Male	111	123	113	
Female	110	119	111	
KEY ECONOMIC RATIOS and LONG-TERM TRENDS				
	1985	1995	2004	2005
GDP (US\$ billions)	34.9	92.5	98.1	123.2
Gross capital formation/GDP	19.0	25.8	19.2	20.3
Exports of goods and services/GDP	13.8	14.5	21.5	21.4
Gross domestic savings/GDP	20.3	19.4	18.6	19.5
Gross national savings/GDP	16.7	21.3	18.0	18.3
Current account balance/GDP	-4.6	-4.9	-1.0	-1.6
Interest payments/GDP	3.5	2.2	2.5	2.3
Total debt/GDP	40.8	27.1	38.7	29.9
Total debt service/exports	39.8	31.5	33.7	26.0
Present value of debt/GDP	..	..	..	..
Present value of debt/exports	..	..	..	..
	1985-95	1995-05	2004	2005
(average annual growth)				
GDP	4.3	1.8	4.9	5.2
GDP per capita	2.1	-0.1	3.0	3.3
Exports of goods and services	8.2	4.4	10.0	5.5
STRUCTURE of the ECONOMY	1985	1995	2004	2005
(% of GDP)				
Agriculture	17.5	15.3	12.2	12.3
Industry	35.5	31.7	33.7	34.3
Manufacturing	22.0	15.9	16.5	15.4
Services	47.0	53.0	54.1	53.4
Household final consumption expenditure	69.0	65.4	62.6	61.8
General govt final consumption expenditure	10.7	15.2	18.8	18.7
Imports of goods and services	12.5	21.0	22.1	22.2
	1985-95	1995-05	2004	2005
(average annual growth)				
Agriculture	1.0	1.1	2.0	3.1
Industry	4.0	1.6	6.8	5.1
Manufacturing	1.3	2.1	7.2	3.9
Services	4.5	2.2	3.9	4.8
Household final consumption expenditure	4.1	1.4	6.0	4.7
General govt final consumption expenditure	6.2	3.2	1.1	4.8
Gross capital formation	7.2	-0.8	15.6	25.6
Imports of goods and services	13.3	1.3	19.8	21.7

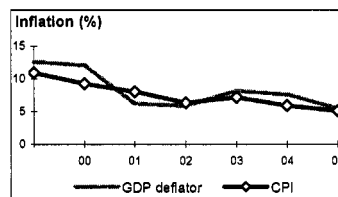


Note: 2005 data are preliminary estimates. Group data are to 2004.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

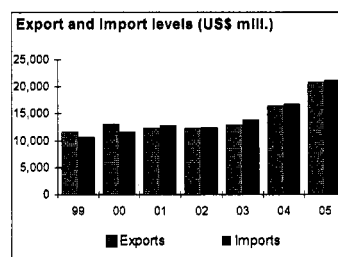
PRICES and GOVERNMENT FINANCE

	1985	1995	2004	2005
Domestic prices				
(% change)				
Consumer prices	24.0	20.9	5.9	5.0
Implicit GDP deflator	24.9	18.9	7.6	5.4
Government finance				
(% of GDP, includes current grants)				
Current revenue	9.2	11.4	14.3	15.0
Current budget balance	1.7	0.8	-4.6	-4.0
Overall surplus/deficit	0.1	-2.2	-5.4	-4.8



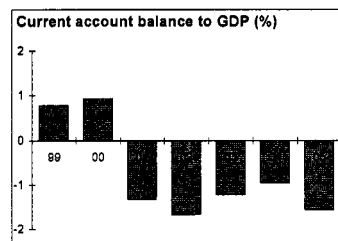
TRADE

	1985	1995	2004	2005
(US\$ millions)				
Total exports (fob)	3,917	10,223	16,442	20,815
Coffee	1,746	1,832	949	1,471
Petroleum	451	2,185	4,227	5,559
Manufactures	643	3,505	6,616	7,887
Total imports (cif)	4,131	13,853	16,748	21,204
Food	180	1,239	1,554	1,874
Fuel and energy	488	372	262	544
Capital goods	1,326	5,030	5,534	7,702
Export price index (2000=100)	10	45	42	44
Import price index (2000=100)	8	43	39	36
Terms of trade (2000=100)	127	102	107	122



BALANCE of PAYMENTS

	1985	1995	2004	2005
(US\$ millions)				
Exports of goods and services	4,642	12,294	19,479	24,392
Imports of goods and services	4,989	16,024	19,812	24,887
Resource balance	-347	-3,730	-333	-495
Net income	-1,710	-1,596	-4,332	-5,525
Net current transfers	461	949	3,727	4,089
Current account balance	-1,596	-4,528	-938	-1,930
Financing items (net)	1,365	4,526	-1,603	202
Changes in net reserves	231	2	2,541	1,729
Memo:				
Reserves including gold (US\$ millions)	2,313	8,453	13,540	14,957
Conversion rate (DEC, local/US\$)	142.3	912.8	2,628.6	2,320.8



EXTERNAL DEBT and RESOURCE FLOWS

	1985	1995	2004	2005
(US\$ millions)				
Total debt outstanding and disbursed	14,248	25,048	37,910	36,875
IBRD	2,401	2,548	3,490	3,975
IDA	18	11	5	4
Total debt service	1,972	4,345	7,863	7,481
IBRD	318	604	408	392
IDA	1	1	1	1
Composition of net resource flows				
Official grants	20	74	0	0
Official creditors	924	-423	84	-722
Private creditors	376	2,257	-1,297	-262
Foreign direct investment (net inflows)	1,023	968	2,975	5,569
Portfolio equity (net inflows)	0	165	0	0
World Bank program				
Commitments	490	207	582	953
Disbursements	589	238	455	705
Principal repayments	165	415	256	218
Net flows	424	-177	198	487
Interest payments	153	191	152	174
Net transfers	271	-368	46	312

