Regional Overview of Water & Sanitation in **Latin America** and the **Caribbean**

Rodrigo Riquelme

Water and Sanitation Division
Inter-American Development Bank
Access to drinking water reaches 94%, slightly surpassing the goal of 93% for 2015.

Sanitation coverage reaches 79%, 84% being the goal for 2015.

26.5 million people continued to practice open defecation.

Source: Database WHO/UNICEF Joint Monitoring Programme, (consulted on April, 2013). Calculations IDB.
2010 sanitation coverage and 2015 MDG (by subregion)

... if in 2010 – 2015 the growth rate is the same as the preceding five years, the sanitation goal will not be met.
Out of the 26 IDB member countries, in 2010 only 9 were on the right track to meet 2015 goals.

<table>
<thead>
<tr>
<th>MDG met?</th>
<th>Progressed as required?</th>
<th>Quantity</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Sanitation</td>
<td>Water</td>
<td>Sanitation</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

The number of people in LAC that should be incorporated between 2010 and 2015 to meet the sanitation goal rises to 56.5 million.

Population to be incorporated to meet sanitation MDG goal in 2015 (million)

- Caribbean: 6
- Central America: 8
- Andean Region: 12
- Southern Cone: 20

Note: Subregions only take into account 26 member countries of the Bank.
Investment requirements to meet the 2015 MDG

In order to meet the sanitation MDG, an investment of US$ 14,751 million is needed in the region (US$ 2,950 million a year between 2010 and 2015)

Calculations IDB. Note: Subregions only take into account 26 member countries of the Bank
SECTOR CHALLENGES

- UNIVERSAL COVERAGE
- ATTRACTING INVESTMENT
- INSTITUTIONAL STRENGTHENING & CAPACITY
  + COMPREHENSIVE PUBLIC POLICIES
  + MULTI SECTORIAL SYNERGIES
  + RECOVERY OF URBAN RIVERS
UNIVERSAL COVERAGE
For the universalization of the sanitation service in 2020 a total investment of US$ 48,498 million is required.
186 million people must be incorporated.

Population to be incorporated for universalization of sanitation* (millones)

- Caribbean: 11
- Central America: 50
- Andean Region: 46
- Southern Cone: 68


Note: Regions only take into account 26 member countries of the Bank.
ATTRACTION
INVESTMENT
Technical cooperations

Technical cooperations
(US$ thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sanitation</th>
<th>Drinking Water and Sanitation</th>
<th>Water Resources and Climate Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>$12,222</td>
<td></td>
<td>$3,447</td>
</tr>
<tr>
<td>2010</td>
<td>$13,663</td>
<td></td>
<td>$3,643</td>
</tr>
<tr>
<td>2011</td>
<td>$12,033</td>
<td></td>
<td>$3,275</td>
</tr>
<tr>
<td>2012</td>
<td>$12,129</td>
<td></td>
<td>$3,118</td>
</tr>
</tbody>
</table>
Investment Grants

Investment Grants (US$ thousands)

2009: $150,345
2010: $268,102
2011: $131,988
2012: $10,751

- Sanitation
- Drinking Water and Sanitation
- Water Resources and Climate Change
FECASALC

PROJECTS (US$ 574.3 M)
• 18 projects for US$ 535.4 M approved
• 1 project for US$ 31.5 M being developed
• 2 TC for 7.4 M approved
INSTITUTIONAL STRENGTHENING & CAPACITY
MODALITIES OF SUPPORT

• Sectoral strategic plans
• Creation & dissemination of knowledge
• Energy Efficiency in Water Companies
Rating system for water and sanitation service providers

+ HIDRO BID

Latin America and the Caribbean hydrologic simulation system
STRATEGIES

GENDER
A more active role of women in the administration, operation and maintenance of water & sanitation systems ensures sustainability of projects.

RURAL
Strategy for designing rural sanitation projects that offers appropriate sanitation solutions adapted to the demands and needs of the population, so as to ensure their use and sustainability.
Drinking water & sanitation as human right

IDB's investments are targeted to:

• Promote good governance through public policies,
• Strengthen operators and create tools to improve their performance,
• Promote appropriate technical solutions for target population,
• Ensure financial sustainability of investments in water and sanitation,
• Support the development of legal and regulatory frameworks in the water and sanitation sector,
• Promote community participation with a strong gender strategy.
COMPREHENSIVE PUBLIC POLICIES
MULTISECTORIAL SYNERGIES
RECOVERY OF URBAN RIVERS
MULTISECTORIAL SYNERGIES
NEGLECTED TROPICAL DISEASES

AMOUNT: US$ 10 million

OBJECTIVE: To improve sanitation conditions in the most populated region in Guyana through rehabilitation of the sewage system and complementary activities to eliminate elephantiasis

BENEFICIARIES: 310,000 inhabitants
SCHOOL WATER, SANITATION AND HYGIENE (SWASH+) IN CENTRAL AMERICA

WATER INFRASTRUCTURE AND SANITATION:
Construction or rehabilitation - 150 schools

HYGIENE EDUCATION:
28,000 trained people (parents, teachers, students)

COMMUNITY STRENGTHENING:
135 community educational organizations created and 150 trained

Pilot provides lessons learned in Mexico for US$ 350M that benefits 20,000 schools
ACCESS TO WATER AND SANITATION THROUGH MICRO-FINANCE - PERU

• Generating demand (especially for sanitation) and raising awareness of the benefits of better household facilities

• Development and supply of financial products and alternatives to technical designs that respond to the needs of the communities
RECOVERY OF URBAN RIVERS
MEDELLÍN RIVER SANITATION PROGRAM

TOTAL AMOUNT: US$ 581.5 million (IDB: US$ 450 million)

OBJECTIVES:
1) Removal of organic load and other contaminants from the Medellín river
2) Support to the company's institutional strengthening

BENEFICIARIES: 2.8 million inhabitants

TIETÉ RIVER DECONTAMINATION PROGRAM - STAGE III

TOTAL AMOUNT: US$ 800 million (IDB: US$ 600 million)

OBJECTIVES:
To contribute to the recovery of quality water from the Tietê river basin in the Metropolitan Region of São Paulo.

- Infrastructure construction
- Operational and institutional improvement

BENEFICIARIES: 20 million inhabitants
PANAMA BAY SANITATION PROJECT

TOTAL AMOUNT: US$ 700 million (IDB: US$ 75 million)

OBJECTIVES:
1. Construction and rehabilitation of Sanitation Networks
2. Construction of collection lines
3. Construction of an Interceptor Tunnel and the Eastern Interceptor System
4. Construction and Operation of a WWTP

BENEFICIARIES: 1 million inhabitants
Overview

THE IDB & THE CARIBBEAN
CHALLENGES FOR THE CARIBBEAN REGION

• Declining amount of fresh water

• Discontinuity of water service

• Low coverage of sewerage networks and/or waste water treatment

• High non revenue water (45-50%)

• High inefficiency on energy consumption (30% of operational budget)

• Water tariffs do not cover production costs

• Environmental problems due to inadequate solid waste disposal

• Low private sector participation in the sector
ADDRESSING THE CHALLENGES

• All operations include institutional component to address: organizational efficiency, financial sustainability improvement, and non revenue water and asset management

• Majority of operations with energy efficiency component

• The Global Environment Facility (GEF) in partnership with the IDB and UNEP are seeking to use GEF resources to help mobilize greater investments in wastewater management facilities in the Wider Caribbean Region (CREW): US$ 18.0 for 2010 for projects in Jamaica and Guyana.

• Knowledge products in waste water, solid waste, commercial practices, governance and energy efficiency
PIPELINE & EXECUTION

• INE/WSA 2013-2014 PIPELINE: US$ 145 M (Trinidad & Tobago)

• PROJECTS IN EXECUTION: US$632.5 M (Belize, Guyana, Suriname, Bahamas, Barbados, Jamaica and Trinidad & Tobago)
PROJECTS IN EXECUTION
SOLID WASTE

• Belize: Transfer, separation and final disposal in Belize city. Currently under construction, US$15 millions

• Guyana: Georgetown Solid Waste Management Program. Currently under construction, US$11 millions

• Trinidad and Tobago: Solid Waste Management (pipeline 2014)
PROJECTS IN EXECUTION
BARBADOS

PROJECT: Water and Sanitation Systems Upgrade

AMOUNT: US$ 53 million (IDB loan US$50 million)

SCOPE:

• Reorganization and modernization of the BWA: Preparation of a long-term business plan, integration of IT systems, installation of the Customer Information System (CIS) And subsequent training, and preparation of a public awareness campaign

• Rehabilitation of potable water supply: NRW reduction and preparation of a multi-phased mains replacement program, upgrade of potable water facilities, installation of Management Information Systems (MIS) and training, network management systems and Geographical Information Systems (GIS), Hydraulic Network Model and equipment upgrades and Energy efficient alternatives.

• Wastewater treatment action plan and upgrades: a wastewater reuse master plan, Environmental Impact Assessment (EIA) of wastewater reuse for aquifer Recharge, study of the viability of wastewater reuse and facilities improvement

STATUS: Execution started in 2011
PROJECTS IN EXECUTION
GUYANA

PROJECT: Georgetown Sanitation Rehabilitation Project
AMOUNT: US$ 9.5 million 100% IDB loan
SCOPE:

• **Rehabilitation of the sewerage system**: Rehabilitation of the sewerage mains, the street sewers, manholes and yard and collecting sewers (house connections).

• **Energy efficiency pilot project**: Equipment upgrades and implementation of energy efficient alternatives in a pilot area located in both the East and West Bank of Demerara.

• **Wastewater treatment action plan and upgrades**: Institutional strengthening of GWI on energy use and wastewater management: Wastewater physical asset management program, training and knowledge exchange on wastewater management and energy efficiency, an analysis of the wastewater tariff structure and cost recovering mechanism, public awareness campaign for proper waste disposal and study on wastewater treatment and disposal alternatives.

**STATUS**: Execution started in 2011
PROJECTS IN EXECUTION
GUYANA

PROJECT: Linden Water Supply Rehabilitation Program

AMOUNT: US$ 12.0 million

SCOPE:

• Optimization of the water supply system: (i) construction of two large reservoirs; (ii) construction of two new treatment plants

• NRW Program: (i) development of a NRW management program to address, monitor and control physical and commercial losses; (ii) installation of micro-meters; (iii) system sectorization and rehabilitation of part of the network.

• Institutional strengthening of GWI: (i) capacity building on operation and maintenance; ii) public awareness campaigns

STATUS: Execution started in 2011
PROJECTS IN EXECUTION
SURINAME

PROJECT: Water Supply Infrastructure Rehabilitation

AMOUNT: US$ 12.0 million 100% IDB loan

SCOPE:

• **Rehabilitation of the water supply system**: Improvements to the potable water treatment facilities, water pumping stations, storage and distribution facilities.

• **Energy efficiency pilot project**: Equipment upgrades and implementation of energy efficient measures that will generate savings and recover expenses in the short term with operation and maintenance improvement.

• **Institutional strengthening**: Activities to improve SWM’s organizational structure and execution capacity; non-revenue water reduction plans, evaluation of water quality standards and assessment of the needs of both organization SWM and DWV in water quality monitoring activities and services and training and knowledge transfer on best practices for energy use.

**STATUS**: Execution started in 2011
PROJECTS IN EXECUTION
TRINIDAD & TOBAGO

PROJECT: WASA Waste Water Infrastructure Rehabilitation Program

AMOUNT: US$ 50.0 million

SCOPE:

• **Rehabilitation of waste water facilities**: Rehabilitation of some of the abandoned waste water treatment plants and connecting them to the system, implementation of new facilities and decommissioning of some old facilities.

• **Reorganization of WASA**: Validation of transformational analysis (i.e., including definition of critical roles within WASA; quality control; optimal size for divisions/departments; staff assessment; performance considerations; possibility for outsourcing).

• **Institutional strengthening**: Activities to improve WASA organizational structure and capacity to operate waste water assets, implementation of discharge standards and their monitoring and capacity building on defining investment needs.

**STATUS: Execution started in 2012**
PROJECTS IN PIPELINE: TRINIDAD & TOBAGO

PROJECT: Wastewater Rehabilitation Program - WASA

AMOUNT: US$ 246.5 million (Phase I of US$ 600 mill)

SCOPE:

• **San Fernando and Malabar Wastewater Treatment Plants**: This component will finance the construction of two wastewater treatment plants and collection systems for the San Fernando catchment and the Malabar catchment areas, which will require infrastructure works for the construction of these WWTPs together with trunk sewers collection systems from existing connections.

• **Institutional strengthening**: Implementation of key actions to improve corporate governance, implementation of key actions to improve commercial management services, and training activities on contract management of outsourced operations, operation and maintenance, and environmental management.

**STATUS**: Execution started in 2013
PROJECT: Kingston Metropolitan Area (KMA) Water Supply Improvement Program – National Water Commission

AMOUNT: US$ 133.0 million

SCOPE:

• Rehabilitation of the potable water supply for Kingston Metropolitan Area (KMA) Reduction of commercial and physical losses as part of the Non-Revenue Water (NRW) in the Kingston and Saint Andrew Area (KSA) including bulk meter supply and installation, customer water meters, leak detection equipment, leak detection and repair.
• Water supply systems for selected peri urban centers: Rehabilitation and water supply improvement works in selected peri urban centers.
• Energy Efficiency Improvements: Replacement or rehabilitation of selected water production facilities
• Institutional Strengthening of NWC Improvement of the information systems and monitoring systems

STATUS: Execution started in 2013
PROJECTS IN EXECUTION
BAHAMAS

AMOUNT: US$ 81.0 million

SCOPE

- **NRW Reduction**: NRW Reduction Contract to address water losses in New Providence.
- **WSC Institutional Strengthening**: Winning back customer campaign, training, development and implementation of the new organizational structure, preparation of WSC for regulation by the Utilities Regulation and Competition Authority (URCA)
- **Rehabilitation** and upgrade of sewerage infrastructure
- **Upgrade legal and regulatory framework** establishment of an independent economic regulator under the Utilities Regulation and Competition Authority (URCA), the establishment of an independent Environmental Regulator.

**STATUS**: Execution started in 2012
PROJECTS IN EXECUTION
BELIZE

PROJECT: Integrated Water and Sanitation Program in Placencia

AMOUNT: US$ 10.0 million (US$ 5.0 mill IDB, US$ 5.0 GEF)

SCOPE:

• **Sewage Collection and Treatment Systems**: Implementation of a sustainable treatment and disposal system for Placencia, improvement of the existing systems.

• **Institutional strengthening**: (i) training sessions for BWSL staff; (ii) public awareness campaigns; and (iii) establishment of benchmarks for replication of additional wastewater investment projects in Belize

• **STATUS**: Execution started in 2010
PROJECT: Flood alleviation and Drainage

AMOUNT: US$ 120 million

SCOPE: (under development)
  • Drainage works for the critical areas flooded in Port of Spain: The main types of works to be included are interceptors, drainage systems, detention ponds and pumping stations.
  • Institutional: Strengthening of the Drainage This component will address the weak institutional arrangement of the sector, modernize the legislative framework, and transforming the Drainage Division into an independent Authority
  • Linear Park: Civil and landscaping works for the implementation of the 1.8 km linear park located at St. Ann’s River.

STATUS: Under preparation for approval in October 2013
1. Projects must be sustainable economically, environmentally and socially (TBL)
2. The executing entity must have the institutional capacity to adequately manage the operation.
3. Involve the community and stakeholders as early as possible during the project execution.
4. The implemented solutions must considered the payment capacity of the users.
5. Always contemplate climate change adaptation and/or mitigation measures for the improvement of the performance and environmental quality of the projects.