

WATER AND SANITATION MARKET ASSESSMENT: POTENTIAL REGIONAL VIABILITY OF WATERCREDIT & MICROFINANCE SOLUTIONS IN BOLIVIA

Executive Summary

This report was developed by Water.org to assess the market for water, sanitation and hygiene (WASH) services in Bolivia and to gauge potential opportunities to expand access to WASH through financial services, particularly microfinance. It is based on the analysis of technical documents as well as a series of interviews with a broad range of actors representing government entities, microfinance institutions (MFIs), water utilities (WUs), and non-governmental organizations (NGOs). It places special focus on Kiva.org MFI field partners, taking into consideration that Water.org seeks to leverage its collaboration with Kiva. The RMA research and interviews were conducted between March and May 2012.

Country Context, WASH Access & Poverty in Bolivia

As of 2010 Bolivia has approximately 10 million inhabitants, 6.6 million (67%) of whom live in urban areas while 3.3 million (33%) of whom live in rural areas. It is estimated that additional 350,000 families (1.75 million people) will resettle in urban areas by 2020. Almost 50% of the total population lives in the metropolitan areas of the four major cities: La Paz (the capital), El Alto, Cochabamba and Santa Cruz. The average annual growth rate in Bolivia has averaged 4% since 2000, but the population in some sectors of El Alto has grown as much as 8% per year.

The city of El Alto is unique and also provides insight into possible future population growth in Bolivia. In 1976 el Alto was a neighborhood in the outskirts of La Paz, with a population of less than 100,000. Then, as result of the closure of the national mines in the late 1980s and mass migration to La Paz, the population in the area increased drastically, including the establishment of El Alto as a separate city (on the periphery). Today El Alto has more than one million inhabitants and is the country's third largest city. Similar migration patterns exist in the Bolivia's other large cities, with smaller communities forming in peri-urban areas.

GDP growth in Bolivia averaged 4% per year from 2000-2010. According to national government statistics, approximately 51% of the population is considered poor and 26% of the population is considered extremely poor¹. The average income of a rural poor household is less than USD 30 per month.

¹ The Poverty / Extreme Poverty line is defined as: monthly per capita income of USD 88 / USD 46 in urban areas and USD 62 / USD 35 in rural areas.

The Bolivian government is a proponent of the human right to water and sanitation and encourages WUs to reduce connection fees and tariffs for low income families. 87.6% of the population has access to an improved water source, leaving 1.2 million people² without access to safe water. Although 96% of urban households have improved water access, more than 70,000 urban households (350,000 people) are not connected to a water network.³ In rural areas only 71% of the population has access to an improved water source. The 360,000 rural households⁴ without connections to water networks depend on governmental programs providing access to water or resort to other means.

According to JMP statistics, 27.3% of all Bolivians have access to improved sanitation; 7.3 million people (73% of the population) use unimproved, shared sanitation or open defecation. Improved sanitation coverage is much higher in urban areas (35%) than rural areas (10%).⁵ Although Bolivia's official data reports sanitation coverage of almost 50%.⁶, under any benchmark Bolivia is struggling to achieve the Millennium Development Goal (MDG) related to sanitation.

Bolivian Water and Sanitation Provision

Water continuity and consumption vary in all major metropolitan areas. In La Paz, El Alto and Santa Cruz water continuity by WUs averages over 22 hours per day; in Cochabamba it is less than 15 hours per day. Water consumption in La Paz is moderate, while in El Alto it is very low (due in part to lack of sanitary installations) and quite high in Santa Cruz (due to a more tropical climate and topography). In Cochabamba water consumption is low due to water scarcity, low continuity provided by WUs and high water prices charged by water trucks. In areas with high levels of continuity, water storage tanks are not in demand. In Cochabamba, where water service is interrupted, most families – including poor families – are equipped with water storage tanks.

Cochabamba provides a unique case of extreme water provider fragmentation. This builds upon the “Water Wars” of Cochabamba in recent years, which were highly political and had significant economic, political and social impacts. The main WU in Cochabamba, SEMAPA, serves 50% of the city's 650,000-person population and lacks capacity to meet growing demand. In addition, more than 100 community based organizations (CBOs) service an average of 260 families each, and approximately 23% of the population is not connected to a water system at all. Sewerage service is provided only by SEMAPA. Moving forward, populations in the peri-urban areas of Cochabamba are likely to search for community-based WASH solutions.

² Includes approximately 960,000 in rural areas and 260,000 in urban areas.

³ Values for 2010, according to JMP, 2012.

⁴ Includes 214,000 with unimproved access, plus 148,000 with improved, but not piped, water access.

⁵ Values for 2010, according to JMP, 2012.

⁶ VMAS, 2012.

The Bolivian government has prioritized sanitation and made significant investments in sewerage and on-site sanitation solutions in recent years. In 2010 it established a Sector Wide Approach (SWAp) to increase sewerage service in big and small cities as well as on-site sanitation in rural areas. Based on the success of that initiative and participation of national and international NGOs to date, the government plans to scale up its plans and create a nationwide project focused on the provision of additional ecological toilets especially for peri-urban areas, small cities and rural areas.

Most WUs in Bolivia finance household water and sewerage connections. Most demand is covered by WUs providing financing on favorable (and even non-commercially competitive, i.e. 0% interest) terms. A summary of WU financing options is as follows:

WU	City	Water	Sewerage	Interest Rate	Tenure
EPSAS	La Paz / El Alto	100	150	9.41%	24 months
SAGUAPAC	Santa Cruz	350	950	0%	240 months
COOPAGUAS		200	0	0%	7 months
COOPLAN		120	n/a	8%	5 months
SEMAPA	Cochabamba	220	*	*	*
SeLA	Oruro	120	n/a	1.5%	12 months
AAPOS	Potosí	170	90	0%	5 months
COSAALT	Tarija	70	70	no financing mechanism	
ELAPAS	Sucre	50	35	no financing mechanism	

Source: WU and ANESAPA. *Information not available.

The Bolivian legal framework does not provide for reimbursement of network extensions executed by third parties (e.g. neighborhood associations). However, WUs in La Paz, El Alto and Santa Cruz support neighborhood initiatives to finance network extensions in new settlements, training and supervising the installation, and incorporating the new infrastructure into the WU system. In addition, some property development companies install water and sanitation networks into new constructions and include the price of the connections in the home or building price.

Financing for new bathrooms is necessary to accompany governmental programs which seek to increase water and especially sanitation coverage. According to the National Water and Sanitation Plan for 2008-2015, water and sanitation coverage will be significantly increased in the peri-urban areas of major cities, in medium and small cities, and in rural areas. It is estimated that over this time period, an additional 215,000 households will obtain water access and 325,000 households will obtain access to sanitation. These programs will be partly financed by international organizations.

Bolivian Microfinance Sector

The Bolivian microfinance sector is one of the most developed in the world. In 2011 the Economist Intelligence Unit ranked Bolivia as the second best climate for microfinance in the world (after Peru).

The microfinance sector is primarily served by 22 MFIs: three banks, five FFPs and fourteen IFDs. Banks and FFPs represent 88% of the microcredit sector's gross loan portfolio (GLP). However, more than 40% of total microfinance borrowers are served by IFDs. The Bolivian microfinance sector as a whole has shown strong growth rates in terms of both GLP and number of clients; in 2011, with a total of over 1 million borrowers, 10% of the Bolivian population had access to microcredit. Regulated MFIs finance their micro loan portfolio mostly via deposits, while IFDs (which cannot take deposits) rely on own assets, donations as well as national and international capital.

Two associations support MFIs at national level: ASOFIN works with banks and Private Financial Funds (*Fondos Financieros Privados* or FFPs); and FINRURAL brings together NGOs offering microfinance (*Instituciones Financieras de Desarrollo* or IFDs). Until 2008 only banks and FFPs were formally supervised, although some IFDs opted to implement self-regulatory mechanisms. With the formation of the Authority of Supervision of the Financial System (ASFI) in 2009, however, the process to formally regulate IFDs began; however, it has been delayed by the drafting of a new Banking Law, which is expected to be implemented in the course of 2012.

Microfinance, Water and Sanitation Linkages

In the area around Cochabamba, there have been a range of pilot programs deploying microfinance for WASH improvements, but none have reached scale. Since 1998 several NGOs, in collaboration with different IFDs, have offered microfinance for W&S products. The products financed have included water saving appliances, ecological toilets, bathrooms, water reuse, water tanks as well as community water systems. Efforts to date have focused on Cochabamba, however expansion into other regions is envisioned in the upcoming years.

An early attempt to offer microloans for the installation of bathrooms, accompanying a project for condominial sewerage extension in El Alto, was dropped at an early stage after lack of consensus emerged among the various stakeholders.

There appears to be clear demand for financial products tailored for WASH solutions exists, especially in peri-urban areas, and credit terms such as interest rates and tenure do not seem to be a major hindrance (with the exception of below-market WU financing). However, some products may be difficult for poor families to access, due to various obstacles including: legal requirements and guarantees (e.g. land title and related documentation); limited geographic scope of IFDs offering

WASH loans and/or NGOs offering technical assistance; lack of a demand-based approach to marketing; and insufficient promotion and hygiene sensitization. In addition, given the significantly lower average income in rural areas, additional subsidies may be required to make WASH solutions affordable to the rural poor.

Coordination of a variety of stakeholders is necessary to strengthen the WASH value chain. These stakeholders include MFIs, NGOs, WUs and municipal governments. Each actor should focus on its core competence such as marketing, sensitization, promotion, identifying communities without improved WASH, providing supervision, technical assistance, governmental subsidies, loans and other financing.

Conclusion and Recommendations

Peri-urban areas of major cities as well as medium and small cities require additional WASH investment, which can be partly covered by microfinance solutions in alliance between MFIs, NGOs and WUs.

There are several MFIs with strong social focus and with the capacity to lend for WASH at favorable interest rates and terms, which have expressed interest in WaterCredit and could become robust partner organizations. Regulated MFIs have more capital available for WASH-focused credit products, but most IFDs need additional capital to fund portfolio growth. In addition, Kiva capital may play a catalytic role in jump-starting the WASH finance market.

Microfinance for WASH purposes is most likely to succeed in the departments of La Paz, Cochabamba and Santa Cruz where both strong MFIs and high demand for WASH solutions exist. In particular, the peri-urban areas of these three metropolitan cities and medium and small cities of these departments (regions) represent the locations with greatest potential. Cooperation with a mix of regulated MFIs and IFDs is recommended to ensure timely results and national-level outreach.

A WaterCredit partner portfolio including Banco FIE and Prodem⁷ (which have national presence) and smaller-scale Kiva Field Partners ProMujer, Emprender and CIDRE (with more regional focus and clients with lower income) would reflect this strategy. In addition, three NGOs specialized in WASH and with some prior microcredit experience are Sumaj Huasi (La Paz), SODIS (Cochabamba) and Avina (Santa Cruz); these organizations could play a vital supporting role with WASH education, promotion and technical assistance.

⁷ Prodem was not interviewed as part of this market assessment, however it was recommended by various institutions (i.e. ASOFIN, SODIS, WFP) and an interview with Prodem would be included in any follow-up activities.

Microfinance-related interventions should focus on making capital available for either sanitary installations to be connected to an existing sewerage network, or on-site solutions (i.e. septic tanks) rather than financing network connections. Price estimates suggest that a variety of WASH solutions are affordable for many urban poor if up-front financing is available. Solutions can be customized for homes that are either already or potentially connected to networks or require on-site solutions.

Sample potential products and approximate prices include:⁸

W&S CONDITION		PRODUCT OPTION	APPROXIMATE COST (USD/family)
WATER/SEWERAGE SERVICE	Existing water network close to neighborhood	Water network extension	250-350
	Existing sewerage network close to neighborhood	Sewerage network extension	300-500
	New sewerage and decentralized wastewater treatment plant	Sewerage network and decentralized Wastewater Treatment Plant	600
ON-SITE SANITATION	Water network with connection. Bathroom with flush toilets and biodigester	HALF BATHROOM (Sanitary room + toilet + lavatory w/ft + sanitary accesories) WITH BIODIGESTER	1,350
		FULL BATHROOM (Sanitary room + toilet + lavatory w/ft + shower + sanitary accesories) WITH BIODIGESTER	1,740
ON SITE SANITATION	No water access, or water scarcity or area with flood risk. Bathroom with ecological toilets (UDDT)	HALF BATHROOM (Sanitary room + toilet + lavatory w/ft) WITH UDDT	790
		FULL BATHROOM (Sanitary room + toilet + lavatory w/ft + shower) WITH UDDT	1,010
HOUSE IMPROVEMENT REGARDING SANITATION	Current Water and Sewerage Network (or included in short term plan)	HALF BATHROOM (Sanitary room + toilet + lavatory w/ft + sanitary accesories)	770
		FULL BATHROOM (Sanitary room + toilet + lavatory w/ft + shower + sanitary accesories)	1,160

Although demand for small scale water and sewerage networks exists in Cochabamba's metropolitan area, the sustainability of these solutions is highly questionable as they increase fragmentation and therewith complicate the water governance with its socio-political implications. Therefore it is not recommended to focus on this type of opportunity at this time.

In-depth organizational analyses that address the structure and terms of potential WASH loan products are necessary to ensure that the financial products ultimately developed are not only desirable and affordable for MFI clients, but also sustainable for the MFIs themselves. Based on interviews with MFIs, analysis of prevalent credit terms, assessments of poor household incomes and the cost of W&S solutions, it appears that loan amounts of up to USD 2,000 with interest rates between 9% to 22% and tenors of up to 36 months would be attractive to MFI clients.

⁸ Prices do not include the cost of any technical assistance and/or sanitary education.