

The Dynamic Brazilian Water Segment

Water & Wastewater Treatment

Constitutionally, the supply of basic sanitation services (water and sewage) in Brazil is the responsibility of the municipal government or a concession granted by the municipality to private enterprise. Up until now, most cities have fulfilled their constitutional obligation by giving their concession to a state-run basic sanitation company. Other cities operate their own services via a city sanitation department or a municipally owned company.

Almost 81% of all homes have running water in Brazil while in urban areas this figure rises to 94.2%. However, in terms of sewage collection, approximately 50% of households are not connected to the sewerage system. This figure varies depending on the region. The southeast (where Rio de Janeiro and São Paulo are located) has much more extensive coverage (70%), while the center-west part of the country (where the capital, Brasília, is located) has 40% coverage, and coverage in the north is only 6.2%. Only one third of all sewage is collected and treated, most of which (11 billion liters a day) is then dumped in rivers, streams, lakes, or the ocean.

Providing universal basic sanitation infrastructure and services has gained new emphasis since the approval of the Sanitation Act in December 2007. The law reduced the uncertainties at federal, state and municipal levels allowing for public private partnerships (PPP) to take off, contributing to an important increase in investments in this area. In general and as a result of the new regulatory framework, Brazil has announced plans to invest \$ 25 billion for sanitation projects between 2012 and 2014.

The 12 FIFA World Cup host cities of Belo Horizonte, Brasília, Cuiaba, Curitiba, Fortaleza, Manaus, Natal, Porto Alegre, Recife, Rio de Janeiro, Salvador and São Paulo are currently receiving important investments for water supply and sewage collection to comply with FIFA requirements and national policy goals for this sector.

According to the International Federation of Private Water Operators, private companies were servicing only 10% of the urban population in Brazil in 2007. Since then, there have been over 20 concession contracts or PPP's for water services and this continues as a growing trend. This difference in systems demonstrates how the Brazilian environmental sanitation sector is undergoing a revolution in terms of operations modernization, technology, and interest from foreign investment

and away from classic minimalization attitudes when said systems were exclusively operated by municipal entities.

Foreign companies are stepping up and investing in PPPs and concessions like never before. Likewise, major Brazilian contractors are investing at historic levels in the sanitation sector and have set up new companies such as Foz do Brasil (part of the Odebrecht Group) and Cab Ambiental (part of the Queiroz Galvao Group) just to operate water services.

PAC Plan

The Acceleration Growth Program (known as the “PAC Plan”) was launched in 2007 by the Brazilian government to drive investments in the areas of energy, transportation, housing, and sanitation. Its objective is to provide general access to water and electricity country-wide with a strong urban water focus. PAC combines management initiatives and public works.

In its first phase, the program called for investments of US\$ 349 billion of which 63.3% has been spent so far. In March 2010, the Brazilian government launched phase two (PAC2), a massive infrastructure investment program valued at roughly \$880 billion. PAC 2 focuses on logistics, energy, and social development organized under six major initiatives, including the [Water and Light for All](#) (sanitation and access to electricity). Estimated investment for that segment of the plan is U.S. \$16.6 billion to be spent between 2011 and 2014.

Imports & Opportunities

Brazilian imports of water-related equipment grew by 40% in 2010. The Brazilian federal government goal is to provide sanitation coverage to the entire population by 2020 which will require an investment of approximately \$82 billion, 30% of which will be designated for equipment and replacement parts.

Imports from the United States grew 29% in 2010. While exporting to Brazil still has its challenges, Brazilian imports are vibrant. The United States ranks as the top foreign supplier of products, especially membranes, special pumps and valves, and measuring instruments among others. There is a strong, potential market for new water technology and products such as analytical and measuring equipment, monitoring equipment for water/sewage treatment stations, sludge treatment, leakage detection control, odor removal processes, flow meters (micro/macro measurements), pipe cleaning, pipe joints and flow control products, sensors and environmental monitoring and industrial effluent.

Demand for membranes in Brazil is estimated to grow by 9.3% percent per year, and reach \$260 million by 2012, a rate that is well above the global average. Advances will be driven by a variety of factors including the greater use of non-chemical water treatment techniques. The government’s policies in favor of industrial water re-use will also boost sales of membranes, as will use in key Brazilian industries such as the processing of sugar and sweeteners, the refining of ethanol, and petroleum and petrochemicals.

The Brazilian environmental sector is expected to receive investments of over U\$10 billion per year between 2010 and 2020 to meet infrastructure demand. Brazil has 25% of the world's flowing fresh water. It also has the largest underground reservoir, the Guarani Aquifer. Below are some additional general and water statistics that demonstrate the importance of the Brazilian water market.

The most important segment is water with over 25% of the total followed by solid waste (22%), and energy efficiency (19.5%)	2010	2011
GDP	\$ 2.2 Trillion US (7 th in World)	\$2.3 Trillion US
Economic Growth	+7.5%	+4.5%
Industrial Production	+10,1%	+5.0%
Foreign direct investment	\$ 30 billion US	\$ 38 billion US
Exports Growth Imports Growth	11.5% 36.2%	9.5% 13.1%
Other Major Investments	2011 to 2014	Post 2014
Growth Acceleration Program (PAC) - Phase 2 - massive infrastructure investment	\$526 billion US	\$364.4 billion US
Investments in the Water and Waste Water Sector (PAC 2)	\$16.6 billion US	TBA
Investments in the Water and Waste Water Sector (Infrastructure Projects to Improve country's capacity for the 2014 World Cup and 2016 Olympic Games)	Guanabara Bay (RJ) Clean-Up Projects - \$886 million US Cedae (water utility for State of Rio de Janeiro, serving 9 million people) IPO - \$1.2 billion US Copasa Water Treatment - \$600 million US Tiete Clean up (Phase 3) - \$1.5 Billion US	
Investment in the Environmental Industry Sector	\$10 billion US	\$10 billion (per year thru 2020)