



Matanza-Riachuelo, Argentina

Pollutant: Volatile organic compounds, including toluene

Population Affected: 20,000+

The Matanza-Riachuelo River Basin is more than 60 kilometers long and houses a number of SME clusters, including chemical manufacturers. It is estimated that 15,000 industries are actively releasing effluent into the river, which cuts through 14 municipalities in Buenos Aires.¹ Chemical manufacturers are responsible for more than a third of the pollution.

Pollutants in the Matanza River vary greatly. A study published in the *Latin American Journal of Sedimentology and Basin Analysis* in 2008 revealed that soil on the banks of the river contained levels of zinc, lead, copper, nickel, and total chromium that were all above recommended levels. Chromium, for example, had a mean value in soil of 1,141 ppm, which is significantly higher than the recommended level of 220 ppm.²

It's believed that 60% of the approximately 20,000 people who reside near the river basin live in territory deemed unsuitable for human habitation, with 6% living in the basin's most unsuitable conditions.³ Environmental factors such as diarrheal diseases, respiratory diseases, and cancer are significant public health problems associated with the multiple industries in the basin. A 2013 article published in *Salud Colectiva* found that 80% of water samples taken from wells near the Matanza-Riachuelo river basin were not safe for drinking due to contamination.⁴ This issue is aggravated by inadequate infrastructure in the nearby informal settlements, where residents are left with few options for drinking water.⁵

Several important programs are making progress on the issue. Most significantly a billion dollar World Bank funded effort will focus on sanitation and industrial

¹ 1 World Water Week in Stockholm, 2010. Available at: http://www.worldwaterweek.org/documents/WWW_PDF/2010/thursday/T6/M_R_Basin_Argentina_vf_09se_10_rafaelli_carsen.pdf

² 1 Ronco, Alicia et al. "Screening of Sediment Pollution in Tributaries from the Southwestern Coast of the Río De La Plata Estuary." *Latin American Journal of Sedimentology and Basin Analysis* (2008).

³ Pietri, DD, P. Dietrich, P. Mayo, and A. Carcagno. "[Multicriteria Evaluation of Environmental Risk Exposure Using a Geographic Information System in Argentina]." *Revista Panamericana De Salud Publica* 30.4 (2011): 377-78.

⁴ Quality of Water for Human Consumption: The Health of the Population Residing in the Matanza-Riachuelo River Basin Area in Greater Buenos Aires." *Salud Colectiva* 9.1 (2013): 53-63.

⁵ IRC International Water and Sanitation Centre, 2009. Available at: <http://www.source.irc.nl/page/46738>



pollutant abatement.⁶ Given the scale of the investment and the actors involved, considerable progress is anticipated.

⁶World Bank, 2013. Available at: <http://www.worldbank.org/projects/P105680/matanza-riachuelo-basin-mrb-sustainable-development-adaptable-lending-program?lang=en&tab=overview>