

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

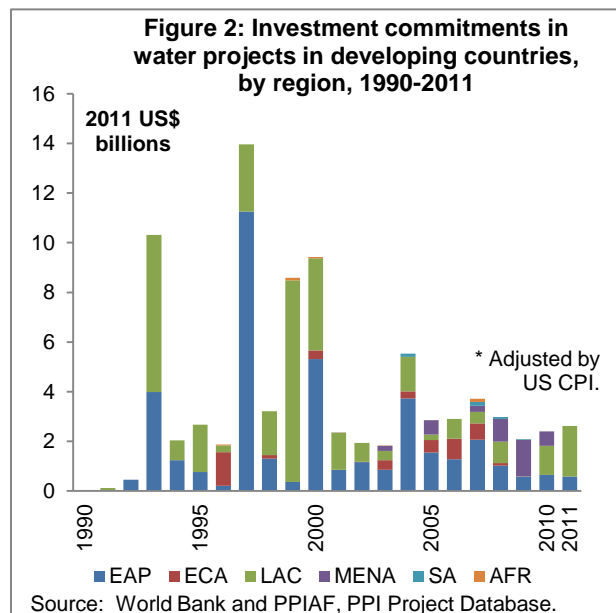
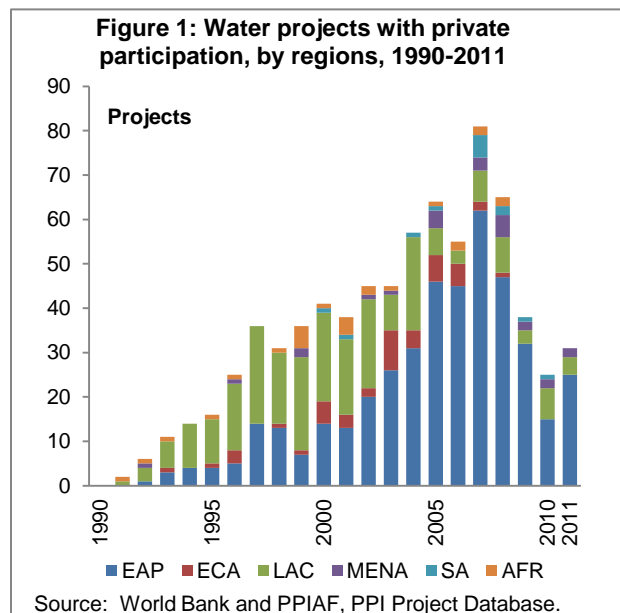
PPI data update note 76

September 2012

Private investment in water and sewerage recovers in 2011, mostly due to activity in China

Overview

In 2011, 31 new water and sewerage projects reached financial or contractual closure in six lower- and upper-middle income countries: Algeria (1), Brazil (2), China (26), Jordan (1), Mexico (1) and Peru (1).¹ Total investment commitments (hereafter, *investment*) in water projects reached US\$2.6.2 billion, of which over US\$1 billion included investments in existing projects and US\$1.5 billion included investments in new projects. Compared to 2010, private activity by number of projects increased by 24%, while by total investment it increased by 8.3%



Regional focus

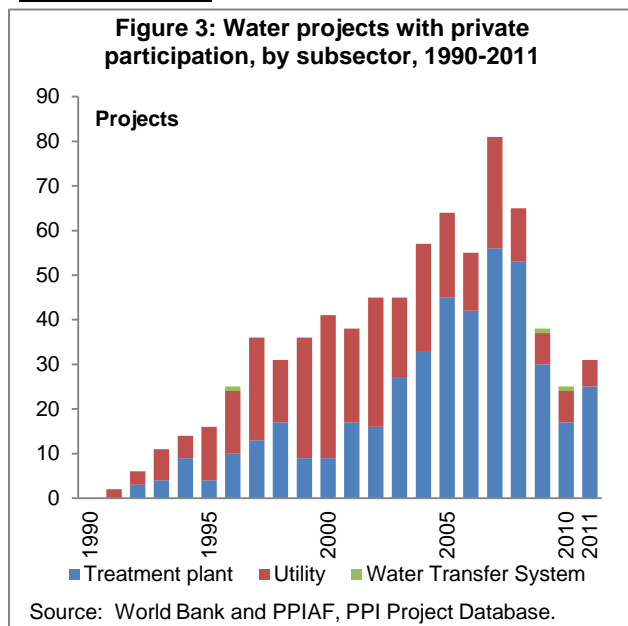
By number of projects, private activity in the water sector was concentrated in **East Asia and Pacific (EAP)**, specifically in China, where 25 new projects closed in 2011. Following EAP was **Latin America and the Caribbean (LAC)** where four projects closed in 2011. **Middle East and North Africa (MENA)** ranked third since only two projects closed in 2011. There was one management contract in Jordan (Yarmouk Water Management Contract) and a second management contract in Algeria for Societe des Eaux d'Assainissement d'Alger. There hasn't been any activity in **Europe and Central Asia (ECA)**, or **Africa (AFR)** since 2008, and since 2010 in **South Asia (SA)**.

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¹ Data on water projects with private participation include primarily medium-size and large projects in low and middle income countries as reported by the media and other public sources. Small-scale projects are generally not included because of lack of public information. More information is available at <http://ppi.worldbank.org/>.

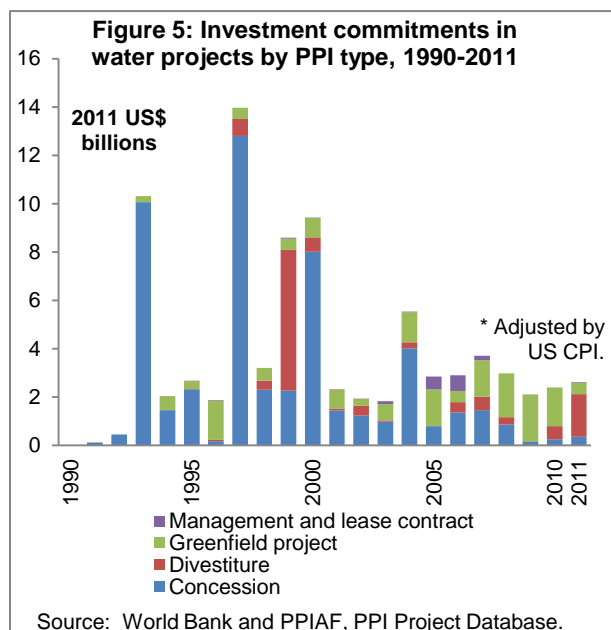
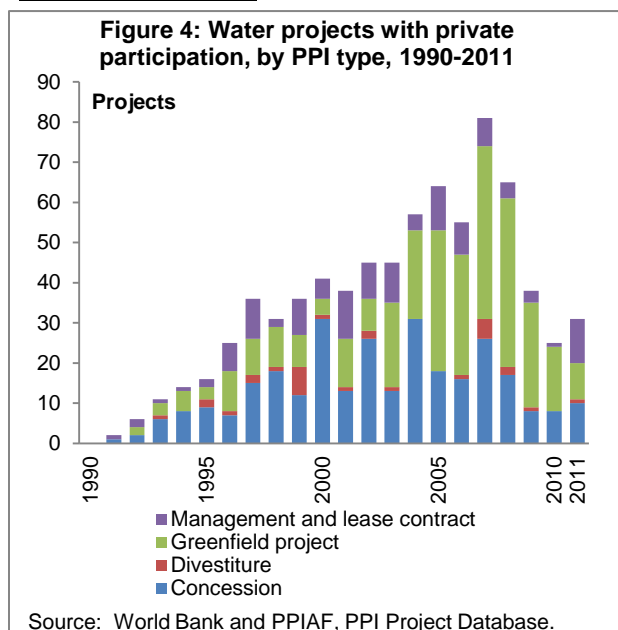
Investment, however, was concentrated in LAC with US\$2 billion, followed by EAP with US\$586 million. The second phase divestiture of the Aguas Andinas, where the Chilean government sold 30% of its shares to institutional investors (private pension fund managers (AFPs) - 86% and 14% to the retail sector) for US\$986 million, is one of the reasons why investment levels are significantly higher in LAC. The remaining investment in LAC was split between six utility and water treatment projects.

Subsector focus



In 2011, water treatment plants accounted for 25 new projects (80% of the total number of new projects) and total investments amounting to US\$684.84 million (26% of total investments in 2011) while water utilities accounted for six new projects (20% of the total number of new projects) and total investments amounting to US\$1.936 billion (74% of total investments). This breakdown is in line with water activity in the past eight years. Water treatment projects were concentrated in China (23) followed by one in Mexico and one in Peru. Water utility projects were equally represented across three regions- two projects each in EAP (China), in LAC (Brazil) and MENA (Jordan and Algeria).²

Contract type focus

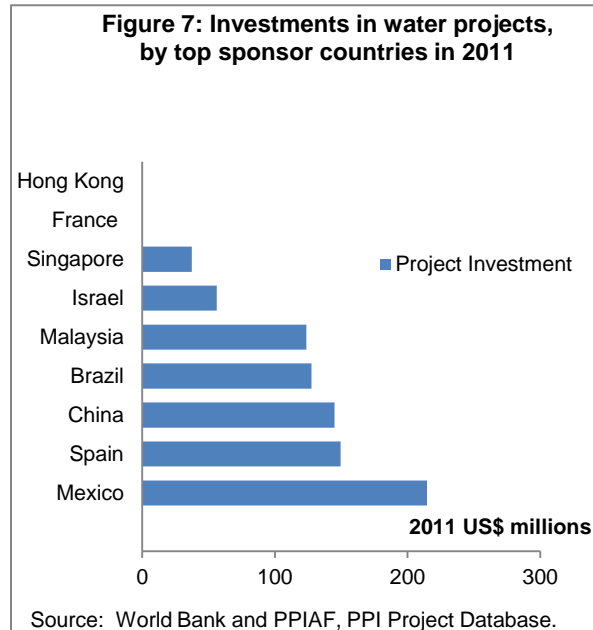
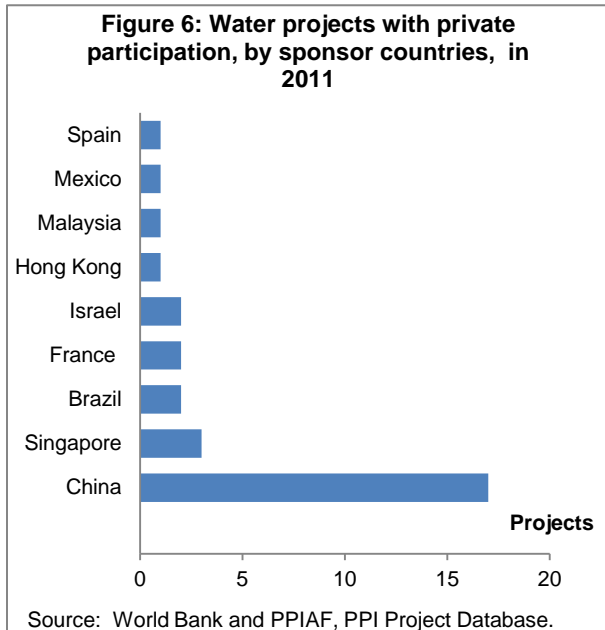


By contract type, management and lease contracts were predominant (11 out of 31). They were followed by ten concession contracts (eight in China and two in Brazil), greenfield BOTs (seven in China, one in Peru and one

² Water utility projects include all facilities necessary for storing and delivering potable water to users, including pipes and devices for measuring consumption, for transfer of potable water to individual users.

in Mexico) and one divestiture (Chile). Given the large amount of investment in the Chilean divestiture and the predominance of management contracts (which involve no investment commitments); total investment was concentrated in divestitures, followed by greenfields and concessions.

Sponsor Focus



Chinese private sponsors dominated the activity in 2011, in terms of number of projects (17), while Mexican and Spanish private sponsors dominated the activity in terms of total project investment (US\$214 million, US\$149.5 million respectively). Chinese sponsors invested in water projects in China while Mexican and Spanish sponsors invested across multiple countries in LAC.

Featured project

El Realito Aqueduct (Mexico) | Treatment Plant | Greenfield (BOT) | 25 years | PPP

In July 2009, a consortium led by Conoisa and Aqualia was awarded a 25-year BOT contract to build, operate and maintain the El Realito Aqueduct water supply and purification system by the water commission of San Luis Potosi State in Mexico. The El Realito Aqueduct was to bring water to 132km from the El Realito dam on Rio Santa Maria to the city of San Luis Potosi and included a 1m³/second (86,400m³/day) water treatment plant, the 132km pipeline and three pumping stations. The associated dam and reservoir were part of a US\$66.2 million public project built in conjunction with the El Realito PPP. Conoisa and Aqualia are subsidiaries of ICA [Mexico, 51%] and FCC [Spain, 49%], respectively. Aquos El Realito was formed as the project company.

There were two other final bidders for the project: Abengoa [Spain] and IDEAL [Mexico]. Bidding was based on the lowest net present value (NPV) of payments. A fourth bidder, Makkro, was disqualified. The winning bid was 2.71 billion pesos although the original budget was 2.38 billion pesos.

The total project cost was US\$214.8 million. In July 2011, Banco Santander was the sole lead arranger of US\$97.04 million peso denominated syndicated loan with banks Banobras, Banorte and Bajio. The project received a US\$73.85 million capital grant from FONADIN backed by Banobras and US\$43.9 million in equity from the sponsors. The ratio of debt to equity, not including the subsidy, was 69:31.

Table 1: Water projects with financial or contractual closure in 2011

Note: .. denotes missing data; N/A means not applicable.

Region EAP										
	Country	Project Name	Project Status	Segment	Type of PPI	Subtype of PPI	Investment commitment (US\$ millions)	Capacity Type	Capacity	Sponsors
1	China	Fujian Anxi Longmen Town Wastewater Treatment Plant	Construction	Sewerage treatment plant	Greenfield project	Build, operate, and transfer	..	Cubic meters per day (thousands)	12.5	South Water Co., Ltd. (100% / China)
2	China	Wastewater Treatment Facility Portfolio for 18 towns in Changsha County	Operational	Sewerage collection and treatment	Greenfield project	Build, operate, and transfer	42.03	Cubic meters per day (thousands)	34.4	Beijing Sound Environment Industry Group (100% / China)
3	China	Shaanxi Yang County Urban Wastewater Treatment Plant	Construction	Sewerage treatment plant	Greenfield project	Build, operate, and transfer	18.2	Cubic meters per day (thousands)	40	Beijing Sound Environment Industry Group (100% / China)
4	China	Hebei Zhangjiakou City Xuanhua District Yangfang Wastewater Treatment Plant	Operational	Sewerage treatment plant	Concession	Rehabilitate, operate, and transfer	41.26	Cubic meters per day (thousands)	120	TAHAL Group (100% / Israel)
5	China	Dihe Wastewater Treatment Plant in Lincheng County	Operational	Sewerage treatment plant	Management and lease contract	Management contract	0	Cubic meters per day (thousands)	20	Shandong Hezheng Environment Protection Engineering Co., Ltd. (100% / China)

6	China	Fenxi County Wastewater Treatment Plant	Operational	Sewerage treatment plant	Management and lease contract	Management contract	0	Cubic meters per day (thousands)	10	Hebei Yongyi Ecological and Environmental Engineering Co., Ltd. (100% / China)
7	China	Guizhou Kaili City Wastewater Treatment Plant	Operational	Sewerage treatment plant	Concession	Rehabilitate, operate, and transfer	18.34	Cubic meters per day (thousands)	80	Beijing Herocan Environmental Engineering Tech Co. Ltd (100% / China)
8	China	Xiong County Wastewater Treatment Plant Management Agreement	Operational	Sewerage treatment plant	Management and lease contract	Management contract	0	Cubic meters per day (thousands)	20	Hebei Delong Environmental Engineering Co., (100% / China)
9	China	Jiangsu Jiangnan Water Co., Ltd.	Operational	Water utility with sewerage	Divestiture	Partial	223.49	Cubic meters per day (thousands)	930	Others (34% / ..)
10	China	Two wastewater treatment plants in Zibo City	Construction	Sewerage treatment plant	Greenfield project	Build, operate, and transfer	15	Cubic meters per day (thousands)	55	TAHAL Group (100% / Israel)
11	China	Rushan City Wastewater Treatment Plant	Operational	Sewerage treatment plant	Concession	Rehabilitate, operate, and transfer	19.57	Cubic meters per day (thousands)	80	Chongqing Kangda Environmental Protection Co. Ltd. (100% / China)
12	China	Shandong Junan Wastewater Treatment Plant	Operational	Sewerage treatment plant	Concession	Rehabilitate, operate, and transfer	20.93	Cubic meters per day (thousands)	90	Beijing Sound Environment Industry Group (100% / China)
13	China	Zhoukou Shabei Wastewater Treatment Plant	Construction	Sewerage treatment plant	Greenfield project	Build, operate, and transfer	24.81	Cubic meters per day (thousands)	50	Asia Environment Holdings Ltd (100% / Singapore)

14	China	Yinchuan Wastewater Treatment Plant Concession Project	Operational	Sewerage treatment plant	Concession	Rehabilitate, operate, and transfer	123.79	Cubic meters per day (thousands)	500	Taliworks Corp. Bhd. (100% / Malaysia)
15	China	Hengshui City Raoyang Wastewater Treatment Plant Management Contract	Operational	Sewerage treatment plant	Management and lease contract	Management contract	0	Cubic meters per day (thousands)	15	CSD (Beijing) Environmental Protection Co., Ltd. (100% / China)
16	China	Xinhe County Yushu Wastewater Treatment Plant Management Contract	Operational	Sewerage treatment plant	Management and lease contract	Management contract	0	Cubic meters per day (thousands)	20	Hebei Yongyi Ecological and Environmental Engineering Co., Ltd. (100% / China)
17	China	Wei County Qingyuan Wastewater Treatment Plant Management Contract	Operational	Sewerage treatment plant	Management and lease contract	Management contract	0	Cubic meters per day (thousands)	20	Hebei Yongyi Ecological and Environmental Engineering Co., Ltd. (100% / China)
18	China	Zhongxiang City Wastewater Treatment Plant Concession Project	Operational	Sewerage treatment plant	Concession	Rehabilitate, operate, and transfer	9.99	Cubic meters per day (thousands)	50	Anneng Group (100% / China)
19	China	Dongying Western Suburban Area Wastewater Treatment Plant	Construction	Sewerage treatment plant	Greenfield project	Build, operate, and transfer	3.82	Cubic meters per day (thousands)	10	Sinomem Technology Ltd. (100% / Singapore)

20	China	The No. 2 Wastewater Treatment Plant of Huaan County	Construction	Sewerage treatment plant	Greenfield project	Build, operate, and transfer	8.88	Cubic meters per day (thousands)	10	Sinomem Technology Ltd. (100% / Singapore)
21	China	Zhuzhou County Wastewater Treatment Plant	Operational	Sewerage treatment plant	Management and lease contract	Management contract	15.95	Cubic meters per day (thousands)	20	Anhui Guozhen Environmental Protection Science & Technology Co. Ltd. (100% / China)
22	China	Huaning County Wastewater Treatment Plant Concession Project	Operational	Sewerage treatment plant	Concession	Rehabilitate, operate, and transfer	..	Cubic meters per day (thousands)	10	Jieyun International Construction & Investment Holdings (Hong Kong) Company Limited (100% / Hong Kong, China)
23	China	Fengxiang County Wastewater Treatment Plant Project	Operational	Sewerage treatment plant	Concession	Rehabilitate, operate, and transfer	..	Cubic meters per day (thousands)	15	Jiangsu Ruisheng Water Treatment Co., Ltd (100% / China)
24	China	Jinde County Wastewater Treatment Plant	Operational	Sewerage treatment plant	Management and lease contract	Management contract	0	Cubic meters per day (thousands)	7.5	Anhui Asia-Pacific Environmental Engineering Tech Co, Ltd. (100% / China)
25	China	Quanlu County Wastewater Treatment Plant Management Contract	Operational	Sewerage treatment plant	Management and lease contract	Management contract	0	Cubic meters per day (thousands)	6	Anhui Guozhen Environmental Protection Science & Technology Co. Ltd. (100% / China)

Region LAC										
	Country	Project Name	Project Status	Segment	Type of PPI	Subtype of PPI	Investment commitment (US\$ millions)	Capacity Type	Capacity	Sponsors
1	Brazil	Porto Ferreira Water and Sewerage Services	Operational	Water utility with sewerage	Concession	Build, rehabilitate, operate, and transfer	23.3	Population (thousands)	54	Odebrecht SA (100% / Brazil)
2	Brazil	Uruguaiana Water and Sewerage Services	Operational	Water utility with sewerage	Concession	Build, rehabilitate, operate, and transfer	104.2	Population (thousands)	140	Odebrecht SA (100% / Brazil)
3	Mexico	El Realito Aqueduct	Construction	Potable water treatment plant	Greenfield project	Build, operate, and transfer	214.8	Cubic meters per day (thousands)	86.4	ICA SA de CV (51% / Mexico), Fomento de Construcciones y Contratas SA (FCC) (49% / Spain)
4	Peru	Taboada Wastewater Treatment Plant	Construction	Sewerage treatment plant	Greenfield project	Build, operate, and transfer	149.5	Cubic meters per day (thousands)	1210	ACS Group (Actividades de Construccion y Servicios) (100% / Spain)

Region MENA											
	Country	Project Name	Project Status	Segment	Type of PPI	Subtype of PPI	Investment commitment (US\$ millions)	Capacity Type	Capacity	Sponsors	
1	Algeria	Societe des Eaux d'Assainissement d'Alger (SEAAL) second management contract	Operational	Water utility with sewerage	Management and lease contract	Management contract	0		525	2011	SUEZ (100% / France)
2	Jordan	Yarmouk Water Company Management Contract	Operational	Water utility with sewerage	Management and lease contract	Management contract	0		250	2011	Veolia Environnement (100% / France)

