

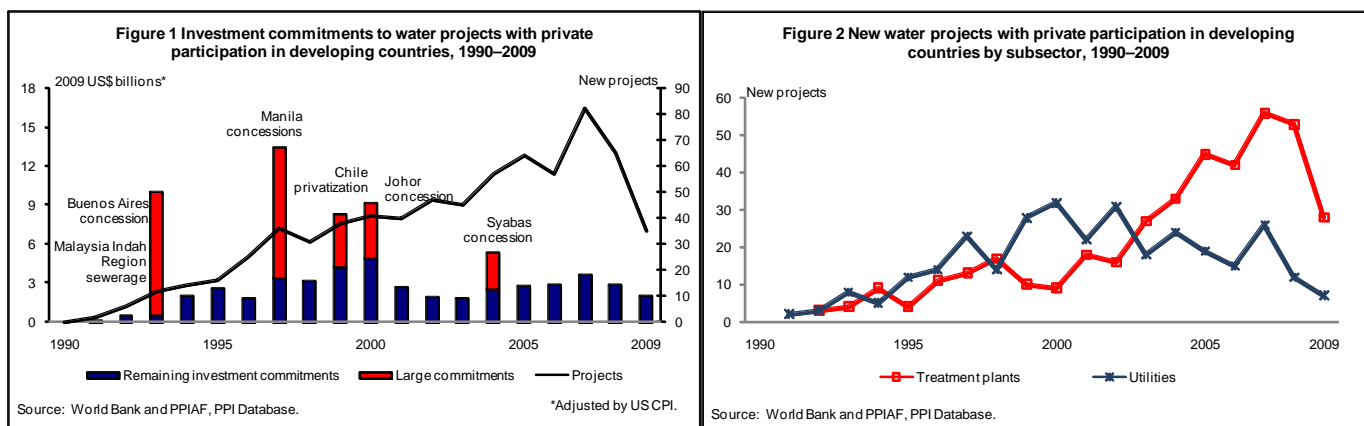
# PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

PPI data update note 37

June 2010

## Private activity in water and sewerage declines for second consecutive year

In 2009 seven low- or middle-income countries implemented 35 water projects with private participation involving investment of almost US\$2 billion (figure 1), according to just-released data from the Private Participation in Infrastructure (PPI) Database.<sup>1</sup> The number of new projects with private participation that reached financial or contractual closure in 2009 declined by 46% compared with 2008. Annual investment commitments (hereafter, *investment*) fell by 31% compared with 2008.<sup>2</sup>



**Highlights of 2009.** New private activity was highly concentrated in 2009. Two projects (one in Jordan and the other in Algeria) represented 72% of investment. Three countries (China, Jordan, and Algeria) accounted for 97% of investment and 86% of new projects. China alone represented 80% of new projects and 25% of investment. The number of low- or middle-income countries implementing new private water projects (seven) was the lowest since 1994.

As in the previous four years, private activity in 2009 focused on water and sewerage treatment plants (figure 2). Treatment plants accounted for 28 of the 35 water projects and US\$1.7 billion in investment. Of the 28 treatment plant projects, 25 were small-scale sewerage facilities (with investment totaling US\$226 million), while the other 3 were potable water treatment plants (US\$1.5 billion). The remaining 7 projects were water utilities (US\$285 million). Three of these utility projects included water and sewerage services, while the other 4 involved only water services.

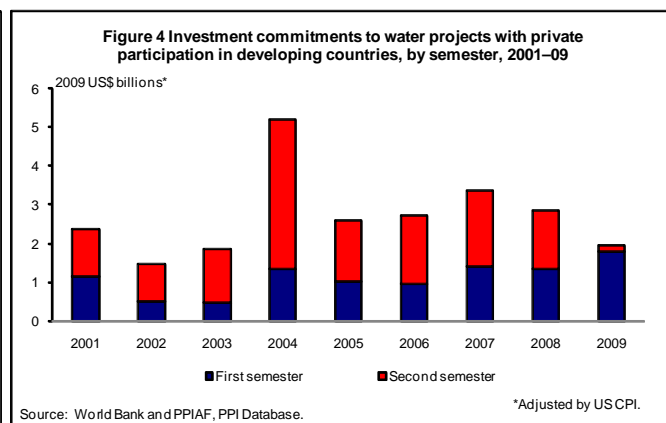
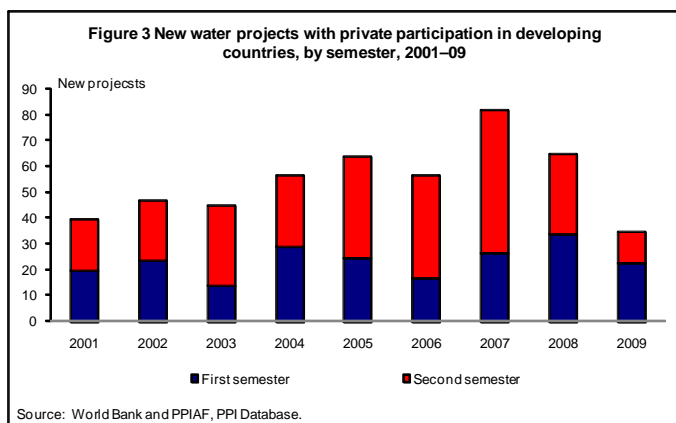
The most common type of private participation was the build-operate-transfer (BOT) contract, which accounted for 23 projects. In addition, there were 8 concessions, 2 lease contracts, 1 management contract, and 1 divestiture. Compared with 2008, the number of water projects reaching closure declined across all four types of private participation, with BOT projects declining by 44% and concessions by 53%.

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<sup>1</sup> Data on water projects with private participation include primarily medium-size and large projects as reported by the media and other public sources. Small-scale private service providers, which also play an important role in the water sector, are generally not included because of lack of public information. Other contracts may have been omitted for the same reason.

<sup>2</sup> All dollar amounts in this note are expressed in 2009 U.S. dollars adjusted by using the 2009 U.S. consumer price index.

While private activity in water and sewerage declined throughout 2009, the larger decline occurred in the second half of the year. The number of projects reaching closure declined by 61%, and investment by 89%, in the second semester of 2009 compared with the same period of 2008 (figures 3 and 4). By contrast, while the number of projects reaching closure declined by 32% in the first semester of 2009 compared with the same period of 2008, investment in that semester increased by 35%. But just one project (a US\$950 million water conveyor project in Jordan) accounted for the investment increase in the first half of the year. The larger decline in private activity in the second half of 2009 can be attributed in part to fiscal stimulus packages that reduced the need for local governments to tap private sector financing—particularly in China, which has had the most private activity in water.<sup>3</sup>



The origin of investment is becoming increasingly local, with entirely local private consortia implementing 26 of the 35 new projects in 2009. Local operators are becoming key sponsors of private water projects in developing countries as foreign private sponsors continue to reduce their participation. The share of water projects with at least one foreign sponsor dropped from 48% in 2007 (39 of 82 projects) to 45% in 2008 (29 of 65) and 26% in 2009. Foreign sponsors' retrenchment from new private activity in water is not surprising considering the relatively small size of new projects and international operators' growing preference to focus on their core markets.

**Regional activity.** Four regions reported new water projects reaching financial or contractual closure in 2009 (tables 1 and 2).

In *East Asia and Pacific*, China implemented 28 new projects, and the Philippines 1. In China the 28 projects reaching financial closure involved investment of US\$498 million. Of these contracts, 25 were for sewage treatment plants, most of them small BOT contracts. Only 3 of these treatment plants exceed a capacity of 100,000 cubic meters a day: the Baoji Shilipu, Changzhou City Wujin District, and Hainan wastewater treatment plants. The remaining three water contracts were for two water utilities (a partial divestiture of the Guangdong Zengcheng City Water Supply Company and a two-year BOT contract for a water utility in Chongqing Municipality) and a potable water treatment plant (a 30-year concession for a plant in Xianning City with a capacity of 160,000 cubic meters a day). Of China's 28 projects, 22 have entirely local private sponsors, while the other 6 have foreign sponsors. In the Philippines the one project implemented in 2009 was a 25-year concession for the operation of the water utility of Boracay Island. The project sponsor is local, the Manila Water Company.

In *Latin America and the Caribbean*, Brazil and Haiti implemented three new projects. In Brazil two 30-year concessions for small-scale water utilities serving less than 25,000 people in the towns of Nova Canaã do Norte and Araçoiaba da Serra reached contractual closure. In both projects the private sponsors are Brazilian. In Haiti a 15-year management contract was signed with the French company Lysa for the operation of Société des Eaux de Saint Marc (SESAM), the water utility company of Saint Marc, a city with a population of 160,000.

<sup>3</sup> China implemented a large fiscal stimulus package to reverse the impact of the global financial crisis in its economy in 2009. See World Bank, *China Quarterly Update—November 2009* (Beijing, 2009).

In the *Middle East and North Africa*, Algeria and Jordan implemented two projects, representing investment of US\$1.4 billion. Algeria reached financial closure on a 25-year BOT contract for the Magtaa seawater desalination plant, with a capacity of 500,000 cubic meters a day. Singaporean Hyflux and the state-owned Algerian Energy Company are the sponsors of this US\$468 million project. Jordan also reached financial closure on a 25-year BOT contract, for the Disi-Amman water conveyor project. The US\$951 million project consists of the construction and operation of a well field system with 55 wells, a 325-kilometer pipeline, a new concrete reservoir east of Amman at Abu Alanda, and a connection to a water reservoir at Dabuk, northwest of Amman. The water conveyance system is to provide 100 million cubic meters of potable water a year for municipal and industrial users in Amman from the Rum Aquifer in the south of Jordan. The project sponsors are Turkish Gama Holding (50%) and American General Electric(50%).

In *South Asia*, India implemented one project, a 25-year concession for a water utility with an installed capacity of 42,000 cubic meters a day in Khandwa, in the district of East Nimar. The US\$23.5 million concession agreement was signed with Indian Vishwa Infrastructure and Services Limited. The private sponsor is to finance 17% of the investment, and government grants the other 83%.

No new projects were reported in *Europe and Central Asia* or *Sub-Saharan Africa*.

**Potential new projects.** Besides the 35 projects implemented in 2009, at least 14 others were awarded but did not reach financial or contractual closure by the end of the year.

*East Asia and Pacific* accounted for eight of the contracts awarded but not reaching closure in 2009, all of them in China. Six were BOT contracts for small-scale wastewater treatment plants—in Baicheng City, Bama County, Liaoyang City, Taiyuan City, Tianjin Municipality, and Putian City. The other two were a BOT contract for a treatment plant in Liaoyang City and a US\$146 million, 30-year concession for a water utility in Yizheng City.

*Europe and Central Asia* had one of the projects. Montenegro awarded a US\$94 million BOT contract for the construction and 30-year operation of wastewater treatment plants and sewerage systems in Budva in July 2009.

*Latin America and the Caribbean* had three, all in Mexico. In June 2009 the State Water Commission of San Luis Potosí awarded a US\$200 million BOT contract for the El Realito Aqueduct water supply and purification system. In September 2009 a US\$178 million BOT contract was awarded for the construction and operation of the Agua Prieta wastewater treatment plant in the city of Guadalajara. And in December 2009 a US\$710 million BOT contract was awarded for the Atotonilco wastewater treatment plant to be built in the Mexico Valley with a capacity of 1,987,000 cubic meters a day.

The *Middle East and North Africa* accounted for two of the projects. In June 2009 the Arab Republic of Egypt awarded a US\$475 million BOT contract for the New Cairo wastewater treatment plant, with a capacity of 250,000 cubic meters a day. The project reached financial closure in January 2010. In July 2009 Morocco awarded an US\$88 million BOT contract for a wastewater treatment plant in Fes with a capacity of 130,000 cubic meters a day.

**Canceled and distressed projects.** In 2009 two contracts were canceled, both in Argentina, and three became distressed, all in Ecuador. This brought the total number of canceled water contracts to 51, representing 7.2% of all water projects and 29.5% of committed investment in 1990–2009. It brought the total number of distressed water contracts to 13, representing 1.8% of all water projects and 7.6% of committed investment in the period.

In Argentina in May 2009, the government of Salta province canceled the concession contract of Aguas de Salta, which had provided water and sewerage services in the province under a 30-year concession contract since May 1998. After taking over the concession, the provincial government created a new state-owned water utility, Compañía Salteña de Agua y Saneamiento, to operate the potable water services in the province. In November 2009 the government of Mendoza province canceled the 95-year concession signed in 1998 for water and sewerage operation in the province. The provincial government cited underinvestment by the concessionaire as the main reason for canceling the contract.

In Ecuador three water utility concessions became distressed in 2009 as the government began to consider canceling the contracts because of a disagreement on tariff adjustments. Aguas de Samborondon Amagua

serves the municipality of Samborondon under a lease contract signed in 2000. Ecapag has provided potable water and sewerage services in the city of Guayaquil under a 30-year concession since 2001. Machala Tripleoro Water Concession operates the water and sewerage services in Machala city in Oro province under a concession contract signed in 2004.

**Concluded projects.** Two contracts concluded in 2009: a BOT contract for a potable water treatment plant in Birigui, Brazil, which concluded in October 2009, and a BOT contract for a sewage treatment plant for the city of Hermosillo, Mexico, which concluded in May 2009.

**Table 1 Summary of water projects reaching financial or contractual closure in developing countries in 2009**

Region and country	Projects	Investment commitment (US\$ millions)	Subsector		Type of private participation			
			Treatment plants	Utilities	Greenfield project	Concession	Management or lease contract	Divestiture
<b>East Asia and Pacific</b>								
China	28	498	26	2	21	4	2	1
Philippines	1	27	0	1	0	1	0	0
<b>Latin America and the Caribbean</b>								
Brazil	2	6	0	2	0	2	0	0
Haiti	1	0	0	1	0	0	1	0
<b>Middle East and North Africa</b>								
Algeria	1	468	1	0	1	0	0	0
Jordan	1	951	1	0	1	0	0	0
<b>South Asia</b>								
India	1	24	0	1	0	1	0	0
<b>Total</b>	<b>35</b>	<b>1,974</b>	<b>28</b>	<b>7</b>	<b>23</b>	<b>8</b>	<b>3</b>	<b>1</b>

Source: World Bank and PPIAF, PPI Database.

**Table 2 Water projects reaching financial or contractual closure in developing countries in 2009**

Note: .. = not available; n.a. = not applicable.

BOT = build, operate, transfer; BROT = build, rehabilitate, operate, transfer; ROT = rehabilitate, operate, transfer.

East Asia and Pacific									
	Country	Project name	Project status	Subsector	Type/subtype of private participation	Investment commitment (US\$ millions)	Capacity type	Capacity	Sponsor
1	China	Anda City Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	28.99	Cubic meters per day (thousands)	45	Runry Water Co. (..%, China), Nanjing Lanshen Group (..%, China)
2	China	Baoji Shilipu Wastewater Treatment Plant	Operational	Treatment plants	Concession (ROT)	19.85	Cubic meters per day (thousands)	120	Shenzhen Goldtrust Water Affairs Group (100%, China)
3	China	Changde City Jiangnan Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	4.65	Cubic meters per day (thousands)	15	Beijing Sound Environment Industry Group (100%, China)
4	China	Changzhou City Wujin District Wastewater Treatment Plant	Operational	Treatment plants	Management and lease contract (lease)	n.a.	Cubic meters per day (thousands)	130	Shenzhen Goldtrust Water Affairs Group (100%, China)
5	China	Chenzhou City No. 3 Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	10.25	Cubic meters per day (thousands)	45	Anhui Guozhen Environmental Protection Science & Technology Co. Ltd. (49%, China)
6	China	Chongqing Municipality Yuelai Water Supply Plant	Construction	Utilities	Greenfield project (BOT)	214.59	Cubic meters per day (thousands)	600	SUEZ (25%, France), New World Development Co. Ltd. (25%, Hong Kong, China)
7	China	Duyun City Wastewater Treatment Plant	Operational	Treatment plants	Concession (ROT)	10.73	Cubic meters per day (thousands)	60	Beijing Herocan Environmental Engineering Tech Co. Ltd. (100%, China)
8	China	Guangdong Zengcheng City Water Supply Company	Operational	Utilities	Divestiture (partial)	5.72	Cubic meters per day (thousands)	150	Guangdong Nanfeng Group Co. (36%, China)
9	China	Guangxi Bobai County Wastewater Treatment Plant Project	Construction	Treatment plants	Greenfield project (BOT)	19.16	Cubic meters per day (thousands)	5	Dongguan City Keda Industrial Investment Co. (20%, China)
10	China	Guanling County and Ziyun County Wastewater Treatment Plants	Construction	Treatment plants	Greenfield project (BOT)	6.8	Cubic meters per day (thousands)	8	Greenland Environmental Tech Co. (100%, China)

11	China	Hainan Wastewater Treatment Plant Portfolio Lease Agreement	Operational	Treatment plants	Management and lease contract (lease)	n.a.	Cubic meters per day (thousands)	142	Beijing Sound Environment Industry Group (100%, China)
12	China	Huangmei County Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	7.08	Cubic meters per day (thousands)	30	Premier Tech (100%, Canada)
13	China	Jiangmen City Jianghai Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	9.59	Cubic meters per day (thousands)	50	Anhui Guozhen Environmental Protection Science & Technology Co. Ltd. (100%, China)
14	China	Jinshi City Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	5.12	Cubic meters per day (thousands)	40	Haichuanda Investment Co. (100%, China)
15	China	Juye County Wastewater Treatment Plant	Operational	Treatment plants	Concession (ROT)	5.72	Cubic meters per day (thousands)	40	Sinomem Technology Ltd. (100%, Singapore)
16	China	Lechang City Pingshi Wastewater Treatment Plant, Phase 1	Construction	Treatment plants	Greenfield project (BOT)	7.15	Cubic meters per day (thousands)	20	Shaoguan City Yalu Environmental Industry Co. (29%, China)
17	China	Lianyuan City Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	5.56	Cubic meters per day (thousands)	20	Haichuanda Investment Co. (100%, China)
18	China	Licheng Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	5.86	Cubic meters per day (thousands)	35	Beijing Sound Environment Industry Group (..%, China), Hatlen Investment Pty Ltd. (..%, Australia), Protection (Asia) Water Treatment Holding (..%, Hong Kong, China)
19	China	Lufeng County Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	14.26	Cubic meters per day (thousands)	10	Hans Technologies (100%, United States)
20	China	Miluo City Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	6.15	Cubic meters per day (thousands)	25	Anhui Guozhen Environmental Protection Science & Technology Co. Ltd. (100%, China)
21	China	Ningxiang County Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	10.67	Cubic meters per day (thousands)	50	Hunan Yonker Environmental Protection Group (100%, China)

22	China	Putian Wastewater Treatment Plant, Phase 2	Construction	Treatment plants	Greenfield project (BOT)	10.01	Cubic meters per day (thousands)	80	Beijing Sound Environment Industry Group (..%, China), Protection (Asia) Water Treatment Holding (..%, Hong Kong, China), Hatlen Investment Pty Ltd. (..%, Australia)
23	China	Weifang City Wastewater Treatment Plant Reclaimed Water Reuse Project	Construction	Treatment plants	Greenfield project (BOT)	3.03	Cubic meters per day (thousands)	35	Lianheruitong Water Affairs Development Co. Ltd. (100%, China)
24	China	Xianning City Water Supply Project	Operational	Treatment plants	Concession (ROT)	51.24	Cubic meters per day (thousands)	160	United Water Corporation (100%, China)
25	China	Xiaochang County Wastewater Treatment Plant Project	Construction	Treatment plants	Greenfield project (BOT)	12.01	Cubic meters per day (thousands)	25	Jiangsu Philip Environmental Protection Engineering Co. (100%, China)
26	China	Yibin County Wastewater Treatment BOT Project	Construction	Treatment plants	Greenfield project (BOT)	6.44	Cubic meters per day (thousands)	20	Sichuan Pioneer Environmental & Water Affairs Co. (100%, China)
27	China	Yuexi County Wastewater Treatment Plant, Phase 1	Construction	Treatment plants	Greenfield project (BOT)	7.74	Cubic meters per day (thousands)	20	Anhui Yatai Environmental Engineering Co. (100%, China)
28	China	Zunyi City Yancun Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	9.52	Cubic meters per day (thousands)	80	Lianheruitong Water Affairs Development Co. Ltd. (100%, China)
29	Philippines	Boracay Island Water Company	Operational	Utilities	Concession (BROT)	26.6	Number of connections (thousands)	4.2	Manila Water Company (80%, Philippines)

Latin America and the Caribbean									
	Country	Project name	Project status	Subsector	Type/subtype of private participation	Investment commitment (US\$ millions)	Capacity type	Capacity	Sponsor
1	Brazil	Aguas de Araçoiaba	Operational	Utilities	Concession (BROT)	..	Population (thousands)	25	Construtora Queiroz Galvão (..%, Brazil), Developer SA (..%, ..), Trana Construções Ltd. (..%, Brazil), Construtora Cowan Ltd. (..%, Brazil)

2	Brazil	Aguas de Canaa	Operational	Utilities	Concession (BROT)	5.8	Population (thousands)	13.2	Perenge Engenharia (., Brazil), Engenharia e Comércio Govic Ltda (., Brazil)
3	Haiti	Société des Eaux de Saint Marc (SESAM)	Operational	Utilities	Management and lease contract (management contract)	n.a.	Population (thousands)	160	Lysa (100%, France)

#### Middle East and North Africa

	Country	Project name	Project status	Subsector	Type/subtype of private participation	Investment commitment (US\$ millions)	Capacity type	Capacity	Sponsor
1	Algeria	Magtaa Desalination Plant	Construction	Treatment plants	Greenfield project (BOT)	468	Cubic meters per day (thousands)	500	Hyflux (47%, Singapore)
2	Jordan	Disi-Amman water conveyor	Construction	Treatment plants	Greenfield project (BOT)	951	Kilometers	325	Gama Holding (50%, Turkey), General Electric (50%, United States)

#### South Asia

	Country	Project name	Project status	Subsector	Type/subtype of private participation	Investment commitment (US\$ millions)	Capacity type	Capacity	Sponsor
1	India	Khandwa Water Supply Augmentation Project	Construction	Utilities	Concession (BROT)	23.5	Cubic meters per day (thousands)	42	Vishwa Infrastructure and Services Limited (100%, India)