

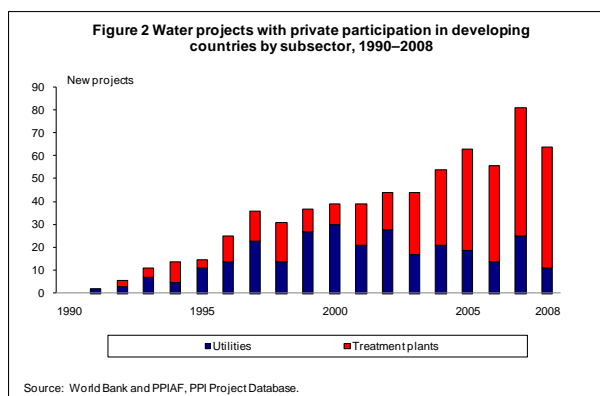
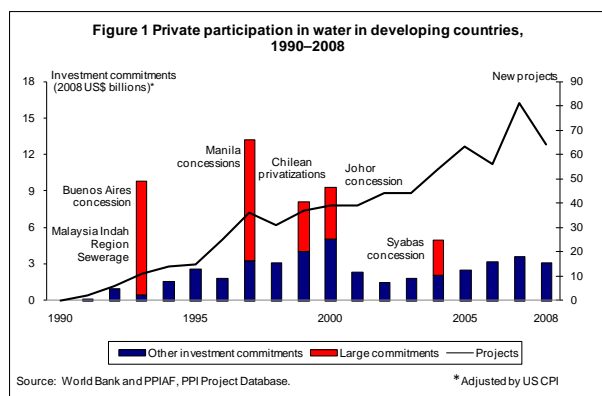
## PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

PPI data update note 23

June 2009

### Private activity in water supply declined in 2008

In 2008 nine low- or middle-income countries implemented at least 65 water projects with private participation, involving investment of more than US\$3.1 billion, according to just-released data from the Private Participation in Infrastructure Project Database (figures 1 and 2).<sup>1</sup> The number of new projects involving the private sector declined by 20% compared with the peak of 2007, while annual investment commitments (hereafter, *investment*) fell by 12%.<sup>2</sup>



### Highlights of 2008

New private activity was highly concentrated in 2008. The number of developing countries implementing new private water projects was the lowest since 1995. Even more, three of the nine—China, Brazil, and Algeria—accounted for 89% of new projects and 85% of investment. China alone accounted for 71% of new projects and 31% of investment.

As in the previous three years, private activity in 2008 focused mainly on water and sewage treatment plants (see figure 2). These accounted for 53 of the 65 water projects and US\$2 billion in investment. This level of activity is comparable to that reported in 2007, when 56 treatment plant projects, involving US\$1.6 billion in investment, reached closure. Projects involving sewerage facilities accounted for most of the treatment plant projects in 2008 (40 of the 53). These projects attracted investment of US\$780 million. The 13 projects for water treatment plants attracted investment of US\$1.2 billion. The other 12 water projects were for utilities and attracted investment of US\$1 billion. Seven of the utility projects combine water and sewerage services, three involve only sewerage services, and two provide only water supply services.

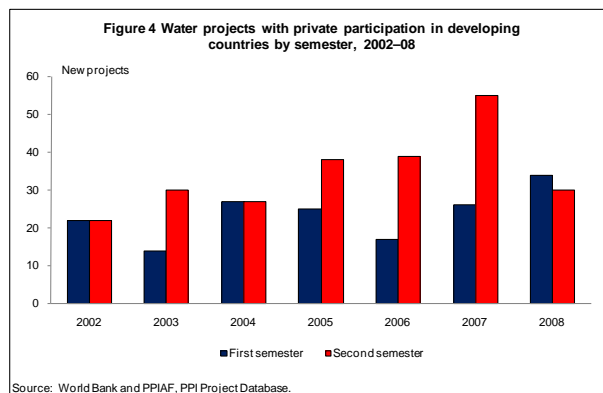
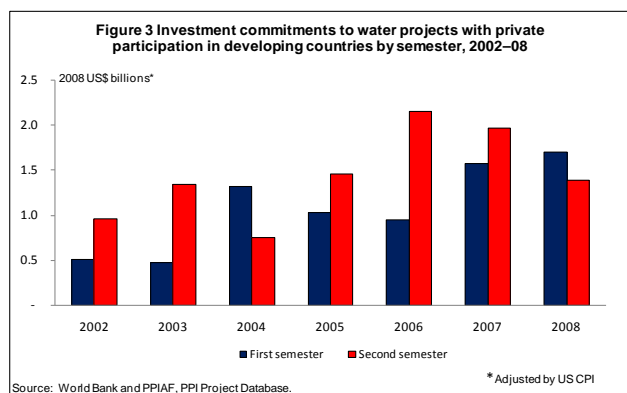
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<sup>1</sup> Data on water projects with private participation include primarily medium-size and large projects as reported by the media and other public sources. Small-scale projects, which also play an important role in the water sector, are generally not included because of a lack of public information. Others may have been omitted for the same reason. Equatorial Guinea, Hungary, Oman, and the Slovak Republic became high-income countries according to the 2008 World Bank country classification (released in July 2008) and are therefore excluded from the PPI Project Database beginning with the 2008 update.

<sup>2</sup> All dollar amounts in this note are expressed in 2008 U.S. dollars adjusted by using the 2008 U.S. consumer price index.

The 65 new water projects included 42 build-operate-transfer (BOT) contracts, 16 concessions, 3 management contracts, 2 divestitures, and 2 lease contracts. The number of concessions was down sharply from the 25 in 2007, while the number of BOT contracts remained stable (43 were implemented in 2007).

The 2008 data suggest that the global financial and economic crisis has affected the closure of new water projects. In the second semester of 2008, the first months of full-scale financial crisis, the number of projects reaching closure declined by 45%, and the associated investments by 29%, compared with the same period in 2007 (figures 3 and 4). Annual activity in 2008 declined by a smaller rate, however, thanks to higher activity in the first semester that offset some of the slowdown in the second. That slowdown affected both subsectors (treatment plants and utilities), though water supply projects had a larger relative decline. Only four water utility transactions, representing investment of US\$330 million, closed in July–December 2008. Investment in treatment plant projects in that semester was down by 12%, to US\$1.1 billion, compared with the same period of 2007.



**Activity by region.** Six developing regions had new water projects reaching financial or contractual closure in 2008 (tables 1 and 2).

- In **East Asia and Pacific** only China and Malaysia had new projects. In China 46 projects reached financial closure, with investment of US\$974 million. Of these, 44 are for treatment plants (40 sewage and 4 water treatment plants). The other 2 are for water utilities: a 30-year concession contract for the water utility of Yingtan City and a partial divestiture of the water company of the Chongqing municipality. In Malaysia a 27-year concession contract was signed for the Sungai Sireh potable water treatment plant.
- In **Europe and Central Asia** private activity was limited to one project in the Russian Federation, a 15-year lease for the water utility of the city of Volgograd.
- In **Latin America and the Caribbean** only Brazil and Guatemala had new projects reaching financial or contractual closure. Brazil had seven, with investment of US\$800 million. In the state of Bahia the federal government and the Brazilian company Odebrecht signed an 18-year BOT contract for the Bahia Outfall sewage collection and treatment plant. In the state of Rio de Janeiro the federal government and Odebrecht signed a 15-year concession for sewerage services for the Rio das Ostras municipality, and the municipality of Resende signed a 30-year concession with Aguas das Agulhas Negras for its water utility and sewerage services. In the state of São Paulo the Brazilian company Cab Ambiental signed a 15-year concession for the Taiacupeba water treatment plant with Sabesp (São Paulo's state-owned water utility), a 30-year concession with the Mirassol municipality for the operation of its water and sewerage utility, and a 30-year concession with the municipality of Guaratingueta for sewerage services. In addition, the Spanish company OHL secured financing for a 30-year BOT contract for a wastewater treatment plant in Mogi Mirim, São Paulo. In Guatemala the departmental government of Izabal signed a 25-year concession with the Uruguayan Grupo Seinco for the water and sewerage utility of the municipalities of Santo Tomas de Castilla and Puerto Barrios.
- In the **Middle East and North Africa** Algeria implemented five projects, with investment of US\$874 million. Four were 25-year BOT contracts for desalination plants with a total capacity of

720,000 cubic meters a day: Mostaganem (200,000 cubic meters a day), Tenes Lilmiyah (200,000), Souk Tleta (200,000), and Fouka (120,000). In addition, the Algerian government signed a 5.5-year management contract for the water supply and sanitation company of the city of Constantine.

- In **South Asia** India implemented two projects, representing investment of US\$76 million. In the state of West Bengal the Haldia Development Authority signed a 25-year concession agreement for a potable water treatment plant in the city of Haldia. In the state of Karnataka, the City of Mysore signed a 6-year management contract for water supply operation.
- In **Sub-Saharan Africa** Côte d'Ivoire and Sodeci, a consortium led by the French Bouygues, signed a new 15-year lease contract for the national water utility, Société de Distribution d'Eau de Côte d'Ivoire, under private management since the 1960s. Mauritius implemented one project, a 7-year management contract for the operation of the St. Martin wastewater treatment plant.

**Potential new projects.** Besides the 65 projects implemented, 9 projects were awarded in 2008 but had not reached financial or contractual closure by the end of the year. In Mexico one BOT contract was awarded for the El Ahogado wastewater treatment plant and another for the expansion of the Los Cabos treatment plant. In Peru a BOT contract was awarded for the Huascacocha water transfer project. In Haiti a management contract was awarded for water services for the city of Saint Marc. In Algeria three BOT contracts were awarded for the desalination treatment plants of Magtaa, Oued Sebt, and Cap Djinet. In Indonesia a 25-year concession contract was awarded for drinking water supply in the regency areas Sepatan, Pasar Kemis, Cikupa, Balaraja, Jayanti, and Tangerang. And in Djibouti a BOT contract was awarded for the desalination treatment plant of Doraleh.

**Canceled and distressed projects.** One contract was canceled in 2008: the Aguas del Valle water utility and sewerage concession for the Argentine towns of San Fernando del Valle de Catamarca, Valle Viejo, and Fray Mamerto Esquiú, canceled in April. That brought the total number of water contracts canceled in 1990–2008 to 49, representing 7.4% of all water projects and 26.8% of investment commitments in that period.

In addition, seven projects became distressed in 2008. In Malaysia the state government of Selangor announced that it would buy back five water treatment projects and the Syabas water utility concession, out of a belief that these contracts make water supply in the state too expensive and unsustainable. In Panama the government requested the early termination of Aguas de Panama's BOT contract for a potable water treatment plant. These projects brought the total number of water contracts becoming distressed in 1990–2008 to 11, representing 1.7% of all water projects and 7.9% of investment commitments in that period.

**Concluded projects.** Two contracts were concluded in 2008: the water utility management contract for four towns (Durrës, Fier, Lezhe, and Saranda) in Albania, in August, and the management contract for water supply in Beira, Quelimane, Nampula, and Pemba in Mozambique.

**Table 1 Summary of water projects reaching financial or contractual closure in developing countries in 2008**

Region	Country	Projects	Investment commitments (US\$ millions)	Subsector		Type of private participation				
				Treatment plants	Utilities	Greenfield project	Concession	Management contract	Lease contract	Divestiture
EAP	China	46	974	44	2	36	8	0	0	2
	Malaysia	1	0	1	0	0	1	0	0	0
ECA	Russian Federation	1	369	0	1	0	0	0	1	0
LAC	Brazil	7	800	2	5	2	5	0	0	0
	Guatemala	1	7	0	1	0	1	0	0	0
MENA	Algeria	5	874	4	1	4	0	1	0	0
SA	India	2	76	1	1	0	1	1	0	0
SSA	Côte d'Ivoire	1	0	0	1	0	0	0	1	0
	Mauritius	1	0	1	0	0	0	1	0	0
<b>Total</b>		<b>65</b>	<b>3,100</b>	<b>53</b>	<b>12</b>	<b>42</b>	<b>16</b>	<b>3</b>	<b>2</b>	<b>2</b>

Source: World Bank and PPIAF, PPI Project Database.

Note: EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENA = Middle East and North Africa; SA = South Asia; SSA = Sub-Saharan Africa.

**Table 2 Water projects reaching financial or contractual closure in developing countries in 2008**

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	Cangwu Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	15.9	Cubic meters per day (thousands)	60	Western Water Corporation (100%, United States)
2	China	Cenxi City Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	5.4	Cubic meters per day (thousands)	30	Guangxi Huahong Water Affairs Investment Co. Ltd. (100%, China)
3	China	Changle County Raw Water Supply Project	Construction	Treatment plants	Greenfield project (BOT)	15.6	Cubic meters per day (thousands)	100	Salcon Bhd (100%, Malaysia)
4	China	Changle County Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	14.3	Cubic meters per day (thousands)	100	Salcon Bhd (75%, Malaysia)
5	China	Chongqing Water Affairs	Operational	Utilities	Divestiture (partial)	228.9	Cubic meters per day (thousands)	..	SUEZ (8%, France), NWS Holdings Limited (8%, Hong Kong, China)
6	China	Daye City Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	6.9	Cubic meters per day (thousands)	30	Beijing Sound Environment Industry Group (80%, China)
7	China	Debao Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	3.5	Cubic meters per day (thousands)	15	Guangxi Huahong Water Affairs Investment Co. Ltd. (100%, China)
8	China	Dingzhou City Tiexi Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	5.0	Cubic meters per day (thousands)	40	Kardan Water International Group Co. Ltd. (100%, China)
9	China	Dongchuan District City Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	4.3	Cubic meters per day (thousands)	20	Anhui Guozhen Environmental Protection Science & Technology Co. Ltd. (100%, China)
10	China	Fusui Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	8.5	Cubic meters per day (thousands)	40	Guangxi Huahong Water Affairs Investment Co. Ltd. (100%, China)
11	China	Guangrao County Wastewater Treatment Plant	Construction	Treatment plants	Concession (ROT)	11.3	Population (thousands)	50	Chongqing Kangda Environmental Protection Co. Ltd. (100%, China)

12	China	Haerbin Qunli Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	55.6	Cubic meters per day (thousands)	150	Chongqing Kangda Environmental Protection Co. Ltd. (100%, China)
13	China	Heilongjiang Muling City Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	6.1	Cubic meters per day (thousands)	20	Dalian Dongda Environmental Engineering Co. Ltd. (100%, China)
14	China	Heilongjiang Zhaodong City Water Supply and Drainage Project	Operational	Treatment plants	Greenfield project (BOT)	22.0	Cubic meters per day (thousands)	100	Beijing Herocan Environmental Engineering Tech Co. Ltd. (100%, China)
15	China	Huangshi City Ci Lake Wastewater Treatment Plant, Phase II	Construction	Treatment plants	Greenfield project (BOT)	16.1	Cubic meters per day (thousands)	125	Asia Water Technology (100%, Singapore)
16	China	Hubei Tianmen Wastewater Treatment Project	Construction	Treatment plants	Greenfield project (BOT)	25.3	Cubic meters per day (thousands)	150	Beijing Sound Environment Industry Group (100%, China)
17	China	Hubei Zhijiang City Wastewater Treatment BOT Project	Construction	Treatment plants	Greenfield project (BOT)	7.7	Cubic meters per day (thousands)	35	Beijing Sound Environment Industry Group (80%, China)
18	China	Jiangsu Jintan City No. 1 Wastewater Treatment Plant	Operational	Treatment plants	Concession (ROT)	10	Cubic meters per day (thousands)	30	Golden State Environment (100%, United States)
19	China	Jiangsu Shanghu Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	2.1	Cubic meters per day (thousands)	35	Zhongchuang Water (100%, China)
20	China	Jiangxi Wannian Wastewater Treatment Plant	Operational	Treatment plants	Greenfield project (BOT)	2.8	Cubic meters per day (thousands)	15	China Water Affairs Group Ltd. (100%, Hong Kong, China)
21	China	Jiangxi Yingtan City Water Supply Co. Ltd.	Operational	Utilities	Concession (ROT)	10.7	Cubic meters per day (thousands)	100	China Water Industry (51%, Hong Kong, China)
22	China	Jilin Liaoyuan Wastewater Treatment Plant	Operational	Treatment plants	Concession (ROT)	12.9	Cubic meters per day (thousands)	100	Sinomem Technology Ltd. (100%, Singapore)
23	China	Jingbian County Wastewater Treatment Plant, Phase I	Construction	Treatment plants	Greenfield project (BOT)	5.6	Cubic meters per day (thousands)	15	Beijing Sound Environment Industry Group (100%, China)
24	China	Jingdezhen No. 2 Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	18.6	Cubic meters per day (thousands)	80	Asia Environment Holdings Ltd. (100%, Singapore)

25	China	Langfang City Railway North Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	19.6	Cubic meters per day (thousands)	80	Hyflux (100%, Singapore)
26	China	Nanjing City Wastewater Treatment Plant	Operational	Treatment plants	Greenfield project (BOT)	1.8	Cubic meters per day (thousands)	10	Grupo Tradebe (.%, Spain), Easen International Company Ltd. (.%, United States)
27	China	Ning'an Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	6.1	Cubic meters per day (thousands)	20	Dalian Dongda Environmental Engineering Co. Ltd. (100%, China)
28	China	Pingfang Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	51.9	Cubic meters per day (thousands)	150	North America Environmental Tech (70%, Canada)
29	China	Qianchuan Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	22.9	Cubic meters per day (thousands)	120	Asia Water Technology (100%, Singapore)
30	China	Shandong Sishui County Wastewater Treatment Plant	Operational	Treatment plants	Concession (ROT)	0	Cubic meters per day (thousands)	20	Longquan Group (100%, Malaysia)
31	China	Shenyang Shenbei Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	8.6	Cubic meters per day (thousands)	50	Shenyang Zhenxing (100%, China)
32	China	Shizong Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	17.2	Cubic meters per day (thousands)	30	Hans Technologies (100%, United States)
33	China	Shuangyashan Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	21.0	Cubic meters per day (thousands)	50	Haerbin Wanxinglong Co. (100%, China)
34	China	Six Wastewater Treatment Plants in Danyang City	Construction	Treatment plants	Greenfield project (BOT)	57.2	Cubic meters per day (thousands)	140	Asia Environment Holdings Ltd. (100%, Singapore)
35	China	Taizhou City No. 4 Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	7.5	Cubic meters per day (thousands)	40	Golden State Environment (100%, United States)
36	China	Tangshan County Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	5.2	Cubic meters per day (thousands)	25	Anhui Guozhen Environmental Protection Science & Technology Co. Ltd. (100%, China)
37	China	Taohua River Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	5.0	Cubic meters per day (thousands)	20	Lianheruntong (100%, China)

38	China	Xigu Wastewater Treatment BOT Project	Construction	Treatment plants	Greenfield project (BOT)	18.5	Cubic meters per day (thousands)	100	Beijing Sound Environment Industry Group (100%, China)
39	China	Xinyigou Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	61.5	Cubic meters per day (thousands)	100	North America Environmental Tech (60%, Canada)
40	China	Xuancheng Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	10.0	Cubic meters per day (thousands)	50	Bio-Treat Technology Ltd. (100%, China)
41	China	Yancheng City Huijin Water Affairs Co. Ltd.	Operational	Treatment plants	Concession (ROT)	28.6	Cubic meters per day (thousands)	235	China Water Group Inc. (49%, China)
42	China	Yuanping City Wastewater Treatment Plant	Operational	Treatment plants	Concession (ROT)	17.1	Cubic meters per day (thousands)	50	GreenTech Engineering Co. Ltd. (.%, China)
43	China	Zhejiang Deqing Water Plant	Construction	Treatment plants	Greenfield project (BOT)	20	Cubic meters per day (thousands)	100	Darco (100%, Singapore)
44	China	Zhoukou City Wastewater Treatment Plant	Operational	Treatment plants	Concession (ROT)	9.2	Cubic meters per day (thousands)	120	Asia Environment Holdings Ltd. (100%, Singapore)
45	China	Zhuanghe City Wastewater Treatment Plant	Construction	Treatment plants	Greenfield project (BOT)	7.5	Cubic meters per day (thousands)	30	Dalian Dongda Environmental Engineering Co. Ltd. (100%, China)
46	China	Zhumadian Water Supply Project	Operational	Treatment plants	Divestiture (partial)	61.1	Cubic meters per day (thousands)	120	China Water Group Inc. (51%, China)
47	Malaysia	Sungai Sireh Water Treatment Plant	Distressed	Treatment plants	Concession (ROT)	..	..	..	Puncak Niaga Holdings Berhad (100%, Malaysia)

Europe and Central Asia									
	Country	Project name	Project status	Sub-sector	Type/subtype of private participation	Investment commitment (US\$ millions)	Capacity type	Capacity	Sponsor
1	Russian Federation	Volgograd Utility	Operational	Utilities	Management and lease contract (lease contract)	369	Population (thousands)	1,000	Integrated Energy Systems Holding (IES) (37%, Russian Federation), Lukoil (16%, Russian Federation)

**Latin America and the Caribbean**

	Country	Project name	Project status	Sub-sector	Type/subtype of private participation	Investment commitment (US\$ millions)	Capacity type	Capacity	Sponsor
1	Brazil	Aguas das Agulhas Negras	Operational	Utilities	Concession (BROT)	74.2	Population (thousands)	112	Construtora Queiroz Galvao (..%, Brazil), Carioca Christiani-Nielsen Engenharia (..%, Brazil), Trana Construcoes Ltd. (..%, Brazil)
2	Brazil	Alto Tiete PPP	Operational	Treatment plants	Concession (BROT)	170	Cubic meters per day (thousands)	1,296	Cab Ambiental (100%, Brazil)
3	Brazil	Bahia Outfall PPP	Construction	Utilities	Greenfield project (BOT)	112.6	Population (thousands)	1,100	Odebrecht SA (100%, Brazil)
4	Brazil	Cab Guaratingueta Sewerage System	Operational	Utilities	Concession (BROT)	39.6	Population (thousands)	116	Cab Ambiental (100%, Brazil)
5	Brazil	Mirassol Water and Sewage Concession	Operational	Utilities	Concession (BROT)	22.5	Population (thousands)	55	Cab Ambiental (90%, Brazil)
6	Brazil	Mogi Mirim	Construction	Treatment plants	Greenfield project (BOT)	175	Cubic meters per day (thousands)	13	Obrascon Huarte Lain (OHL) (57%, Spain)
7	Brazil	Rio das Ostras Sanitation PPP	Construction	Utilities	Concession (BROT)	206.5	Population (thousands)	120	Odebrecht SA (100%, Brazil)
8	Guatemala	Aguas de Izabal	Operational	Utilities	Concession (BROT)	6.7	Number of connections (thousands)	6	Grupo Seinco (100%, Uruguay)

**Middle East and North Africa**

	Country	Project name	Project status	Sub-sector	Type/subtype of private participation	Investment commitment (US\$ millions)	Capacity type	Capacity	Sponsor
1	Algeria	Fouka Desalination Plant	Construction	Treatment plants	Greenfield project (BOT)	180.0	Cubic meters per day (thousands)	120	Acciona (26%, Spain), SNC Lavalin (26%, Canada)
2	Algeria	Mostaganem Desalination Plant	Construction	Treatment plants	Greenfield project (BOT)	250.0	Cubic meters per day (thousands)	200	Fomento de Construcciones y Contratas SA (FCC) (26%, Spain), Obrascon Huarte Lain (OHL) (26%, Spain)



3	Algeria	Société des Eaux et de l'Assainissement de Constantine	Operational	Utilities	Management and lease contract (management contract)	n.a.	Population (thousands)	1,200	Société des Eaux de Marseille (100%, France)
4	Algeria	Souk Tleta Desalination Plant	Construction	Treatment plants	Greenfield project (BOT)	213.0	Cubic meters per day (thousands)	200	Malakoff Bhd (41%, Malaysia)
5	Algeria	Tenes Lilmiyah Desalination Plant	Construction	Treatment plants	Greenfield project (BOT)	231.0	Cubic meters per day (thousands)	200	Abengoa (51%, Spain)

#### South Asia

	Country	Project name	Project status	Subsector	Type/subtype of private participation	Investment commitment (US\$ millions)	Capacity type	Capacity	Sponsor
1	India	Haldia Water Management Limited	Operational	Treatment plants	Concession (BROT)	75.9	Cubic meters per day (thousands)	114	Ranhill Bhd (34%, Malaysia), Infrastructure Development Finance Company Ltd. (IDFC) (34%, India), Tata Enterprises (34%, India)
2	India	Water Management Contract for Mysore City	Operational	Utilities	Management and lease contract (management contract)	n.a.	Number of connections (thousands)	133	Tata Enterprises (100%, India)

#### Sub-Saharan Africa

	Country	Project name	Project status	Subsector	Type/subtype of private participation	Investment commitment (US\$ millions)	Capacity type	Capacity	Sponsor
1	Côte d'Ivoire	Société Distribution d'Eau de Côte d'Ivoire Renewal	Operational	Utilities	Management and lease contract (lease contract)	n.a.	Population (thousands)	9,000	Bouygues (46%, France)
2	Mauritius	St. Martin Wastewater Treatment Plant	Operational	Treatment plants	Management and lease contract (management contract)	n.a.	Cubic meters per day (thousands)	70	Berlinwasser International AG (100%, Germany)