



## PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

PPI data update note 29

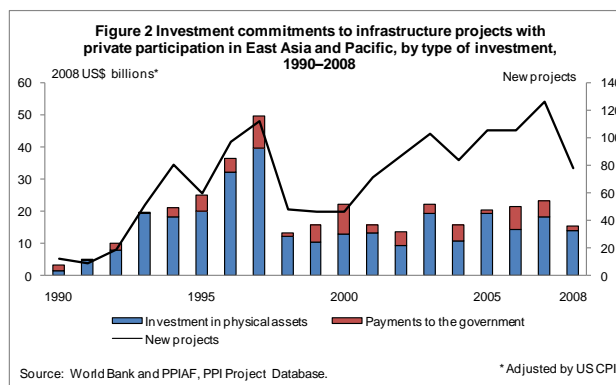
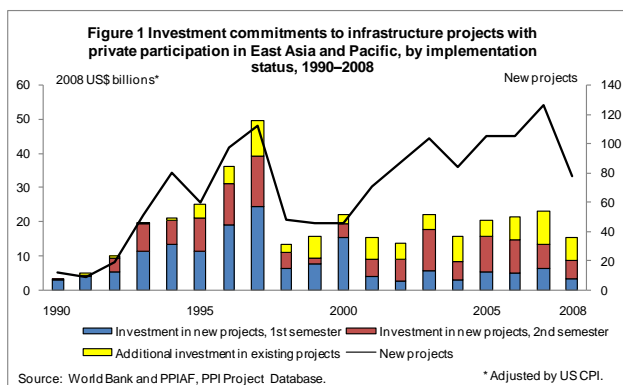
December 2009

### Investment commitments and the number of new projects decline in East Asia and Pacific

Private activity in infrastructure in East Asia and Pacific slowed in 2008, according to just-released data from the Private Participation in Infrastructure Project Database. Both investment commitments and the number of new projects declined, in both the first and second half of the year. New energy projects and existing telecommunications operators accounted for most the annual investment. The region attracted 10% of the year's total investment commitments in developing countries.

In 2008, 78 infrastructure projects with private participation reached financial or contractual closure in 10 low- or middle-income countries of East Asia and Pacific.<sup>1</sup> These projects involve investment commitments (hereafter, *investment*) of US\$8.6 billion. Infrastructure projects implemented in previous years had additional commitments of US\$6.8 billion, bringing total investment in 2008 to US\$15.4 billion. That level was 33% lower than in 2007 and the lowest since 2002 (figure 1).<sup>2</sup> New projects as well as existing ones accounted for the decline.

When investment is classified by type, both investment in physical assets and payments to governments explain the decline. Investment in physical assets fell by 24% from the level in 2007, to US\$13.8 billion in 2008 (figure 2). Payments to governments (such as concession or lease fees and divestiture revenues) dropped by 67% to US\$1.6 billion.



New projects and associated investment in 2008 were fairly evenly distributed between the first and second half of the year. Of the 78 new projects, 44 were implemented in the first half of 2008. These involve investment of US\$3.3 billion, down 48% from the same period of 2007 (see figure 1). Investment in the second semester of 2008 amounted to US\$5.2 billion, 25% lower than in the same period of 2007. Preliminary data on new projects in the first semester of 2009 suggest a recovery compared with the same period of 2008, with investment reaching US\$4.4 billion.<sup>3</sup> Similar analysis is

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<sup>1</sup> The data on infrastructure projects with private participation include primarily medium-size and large projects as reported by the media and other public sources. Small-scale projects are generally not included because of lack of public information. Additional investment in some projects may have been omitted for the same reason.

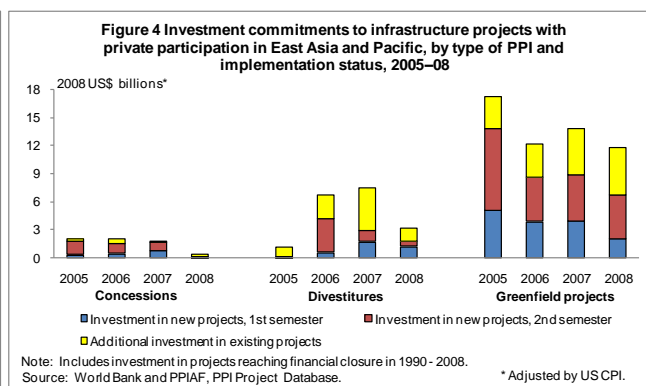
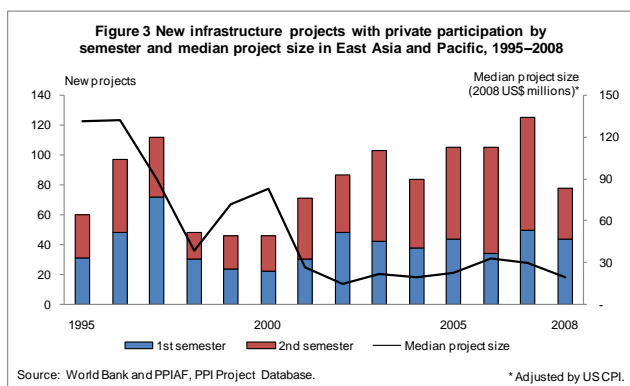
<sup>2</sup> Investment data are reported in 2008 U.S. dollars, using the U.S. consumer price index and 2008 as the base year. Data at <http://ppi.worldbank.org/> are reported in millions of current U.S. dollars unless otherwise indicated.

<sup>3</sup> "Assessment of the Impact of the Crisis on New PPI Projects: Update 4," PPI data update note 24 (October 2009).

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not possible for existing projects because the data do not allow the separation by semester of additional investment.

The number of projects reaching financial or contractual closure fell by 38% in 2008 compared with 2007. The slowdown in the second half of the year accounts for most of the decline (figure 3). Among countries, China explains most. With China excluded, the number of projects reaching closure in the region would have dropped by just 14%. One regional trend worth noting is the small size of infrastructure projects with private participation. While the median size of new projects in all developing countries grew from US\$24 million in 2002 to US\$97 million in 2008, the median size in East Asia and Pacific ranged between US\$15 million and US\$32 million in that period.



Investment declined for all types of private participation in the region between 2007 and 2008 (figure 4). Investment in greenfield projects fell by 15% to US\$11.8 billion, the lowest level since 2004.<sup>4</sup> Greenfield projects nevertheless accounted for 77% of the regional total in 2008. The decline was mostly in investment in new greenfield projects; investment in existing projects remained stable at around US\$5 billion. For divestitures, investment declined by 43% to US\$3.2 billion, 21% of the regional total. The five new divestitures in 2008 attracted investment of US\$1.7 billion, 40% less than the total for new divestitures in 2007. Investment in previously implemented divestitures also declined.

Concessions attracted investment of US\$435 million, 76% less than in 2007. Less than US\$100 million was directed to the 13 new concessions; the rest was additional investment in existing projects.<sup>5</sup> The number of new concessions fell by 55% in 2008. Nine of the new concessions are for water treatment and sewerage projects, eight of them in China and one in Malaysia. Of the other four, two are for natural gas facilities in China and two for seaports in the Philippines. There were no new management or lease contracts in 2008.

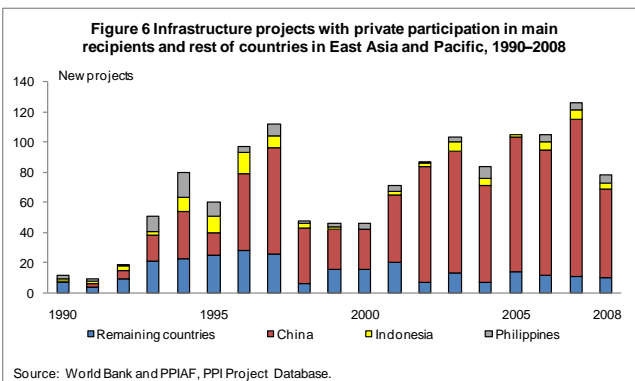
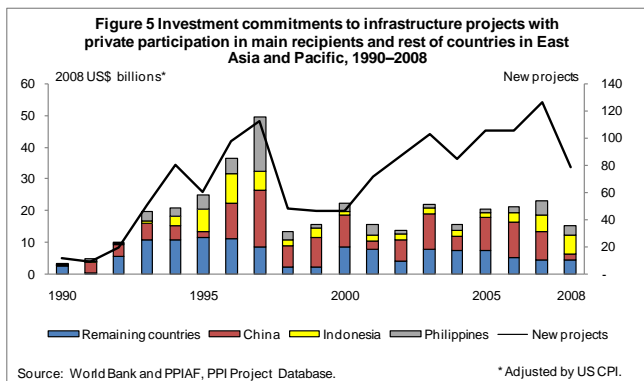
Three countries accounted for 87% of the new projects and 70% of the investment in the region in 2008 (figure 5). China had 59 of the 78 new projects and 12% of regional investment (figure 6). Indonesia implemented 4 new projects and attracted 37% of the investment, while the Philippines had 5 new projects and 21% of the investment. While these three countries typically account for most private activity in the region, their total share in 2008 was smaller than in the previous three years.

<sup>4</sup> This note uses the term *greenfield project* as defined in the PPI Project Database methodology. The definition includes the following schemes: build, lease, and transfer (BLT); build, operate, and transfer (BOT); build, own, and operate (BOO); merchant; and rental.

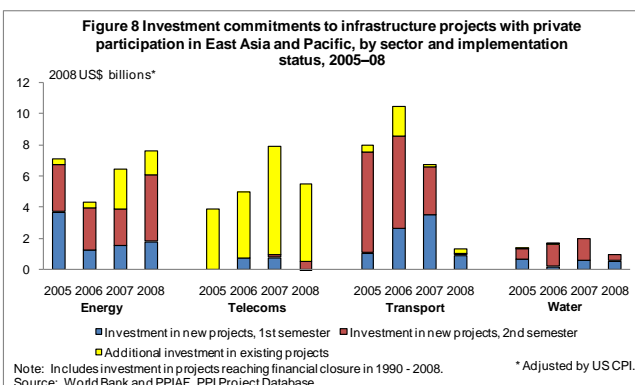
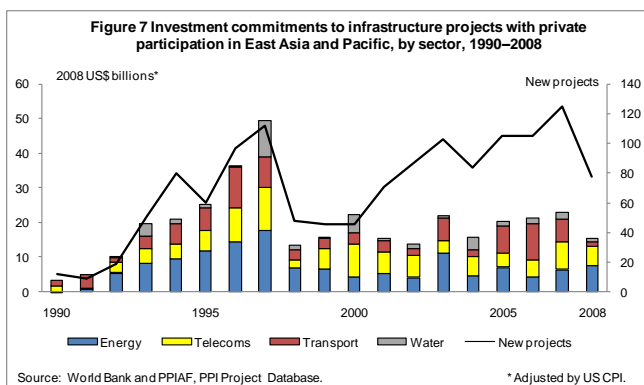
<sup>5</sup> This note uses the term *concession* as defined in the PPI Project Database methodology. The definition includes contracts under which a private entity takes over the management of a state-owned enterprise or asset for a given period during which it also assumes significant investment risk. The following schemes are considered concessions: build, rehabilitate, operate, and transfer (BROT); rehabilitate, lease or rent, and transfer (RLT); and rehabilitate, operate, and transfer (ROT).

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The other 30% of regional investment in 2008 was spread among seven countries: Cambodia, Fiji, the Democratic Republic of Korea, Malaysia, Thailand, Vanuatu, and Vietnam.



**Activity by sector.** Energy attracted the largest share of regional investment in 2008 (50%), followed by telecommunications (36%; figure 7). Investment in energy rose by 19% from 2007, to US\$7.6 billion. New energy projects accounted for that growth and for most of the sector investment (figure 8). Investment in telecommunications fell by 31% to US\$5.5 billion. Most of that investment went to network expansion by existing telecommunications operators. In transport, investment fell by 80% to US\$1.3 billion—one of the lowest levels in 1990-2008. In water and sewerage, lower activity in China led to a 50% drop in investment, to US\$0.97 billion.



In *energy* five countries implemented 20 new projects—16 for electricity generation and 4 for natural gas distribution services (table 1). China implemented 10 projects, involving investment of US\$678 million. Six of these projects (five build-operate-transfer [BOT] contracts and one concession) are for electricity generation, for a total of 577 megawatts (MW). The other four (three BOT contracts and one concession) are for natural gas distribution. Cambodia secured financing for an 18-MW hydropower plant to be developed on a BOT basis. Indonesia raised financing for four new power plants with total installed capacity of 1,600 MW and investment of US\$2.4 billion. Of these projects, the largest by far is the US\$2.2 billion, 1,320-MW expansion of the Tanjung Jati B coal-fired power plant. The new project (expansion) is under a 20-year build-lease-transfer (BLT) contract.

The Philippines finalized the divestitures of two power generation projects (the 1,200-MW Masinloc coal-fired power plant and the 225-MW Ambuklao-Binga hydropower complex), with investment amounting to US\$1.4 billion. The Philippines also implemented a 42-MW hydropower plant on a build-own-operate (BOO) basis. Thailand secured financing for two power plants to be developed on a BOO basis: the US\$1.15 billion, 660-MW GHECO-One coal-fired power plant and the US\$224 million, 185-MW gas-fired SIPCO power plant.



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In *telecommunications* previously implemented projects attracted investment of US\$4.9 billion, and three new projects US\$525 million, for a total of US\$5.5 billion. The Democratic People's Republic of Korea granted a 25-year national license for mobile phone service to CHEO Technology, a joint venture between Egyptian Orascom and the government. The initial investment commitments of the joint venture amount to US\$400 million. Bermuda-based Digicel was awarded mobile licenses in the Pacific island nations of Fiji and Vanuatu. Digicel's related investment commitments amount to US\$90 million in Fiji and US\$35 million in Vanuatu.

In *transport* four countries implemented eight projects, six of them for seaports. China signed three contracts, involving investment of US\$211 million, a significant drop from its 13 projects in 2007. China had two BOT contracts: one for a bridge and the other for a multipurpose seaport terminal. The other project was the partial divestiture of Yichang Port Affairs Group, a state-owned seaport operator in Hubei Province. Malaysia signed a US\$425 million BOT contract for the Johor Eastern Dispersal Link Expressway, a dual three-lane highway to clear congestion between Tanjung Puteri and Johor Baru. The Philippines signed two rehabilitate-operate-transfer (ROT) concessions for port facilities (Mindanao Container Terminal and New Container Terminal-1 in Subic Bay Freeport), involving investment of US\$14.8 million. Vietnam had two BOT contracts, involving investment of US\$365 million, for port container terminals in Ho Chi Minh City and Ba Ria-Vung Tau Province.

In *water and sewerage*, 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.

**Potential projects.** In addition to the 78 projects reaching financial or contractual closure in the region in 2008, at least 15 other infrastructure projects were awarded in 2008 but did not reach closure before the end of the year. Seven of these potential projects were in energy, for electricity generation. Another seven were potential transport projects—five seaports, one road, and one railway. The other potential project was a 25-year concession contract for drinking water supply in Indonesia.

**Canceled and distressed projects.** One project in the region was canceled in 2008, and six became distressed. These projects brought the region's total number of contracts canceled or becoming distressed in 1990–2008 to 80, representing 6% of all infrastructure projects and 12.2% of investment commitments in that period.<sup>6</sup>

In March 2008 a 30-year BOT contract for the Kulim-Butterworth Highway in Malaysia was canceled when the project company, Konsortium Lebuhraya Butterworth-Kulim (KLBK), was purchased by the state-owned enterprise PLUS Expressways Berhad (PEB). In addition, the state government of Selangor, Malaysia, 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.

**Concluded projects.** No infrastructure project was concluded in the region in 2008.

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<sup>6</sup> The number of canceled projects reported in this note for the period 1990–2007 is four more than that reported in PPI data update note 10 (July 2008). The increase reflects the inclusion of four road contracts in Malaysia in which private participation ended between 2001 and 2007 when project sponsors were acquired by state-owned enterprises.


**PRIVATE PARTICIPATION  
IN INFRASTRUCTURE DATABASE**
**Table 1 Infrastructure projects with private participation reaching financial or contractual closure in East Asia and Pacific in 2008**

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

Energy										
	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Contract period (years)	Main sponsors
1	Cambodia	Kirirom No. 3 Hydropower Station	Construction	Electricity	Greenfield project (BOT)	100	47.1	18 MW	33	State Grid Xin Yuan Company Limited (100%, China)
2	China	Ganzi Jiulong River Hydropower Plant	Construction	Electricity	Greenfield project (BOT)	100	276	330 MW	44	China Light and Power Ltd. (65%, Hong Kong, China)
3	China	Gongzhulin Towngas Co., Ltd.	Operational	Natural gas	Concession	100	7.58	24,000 connections	30	Hong Kong and China Gas Company (100%, Hong Kong, China)
4	China	Guohua Hulunbeier Wind Farm Project Phase I	Operational	Electricity	Concession	49	12.27	49.5 MW	40	AES Corporation (49%, United States)
5	China	Houxinqiu Mazong Mount Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	49	76.08	49.5 MW	30	China Windpower Group Limited (49%, China)
6	China	Huanghua Wind Farm Project Phase II	Construction	Electricity	Greenfield project (BOT)	49	74.22	49.5 MW	25	AES Corporation (49%, United States)
7	China	Huangshan City Pipeline Gas Project	Operational	Natural gas	Greenfield project (BOT)	100	10.01	..	30	Hong Kong and China Gas Company (100%, Hong Kong, China)
8	China	Qujiagou Wind Farm Phase I	Construction	Electricity	Greenfield project (BOT)	49	68.1	49.5 MW	30	China Windpower Group Limited (49%, China)
9	China	Siziwang Qi Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	100	68.67	49.5 MW	20	Hong Kong Construction (Holdings) Ltd. (100%, Hong Kong, China)
10	China	Yunfu City LPG Project	Construction	Natural gas	Greenfield project (BOT)	100	21.46	..	30	China Gas Holdings Limited (100%, Hong Kong, China)
11	China	Zhaoqing City LPG and LNG Project	Construction	Natural gas	Greenfield project (BOT)	100	64.38	650,000 population	30	Xiniao Gas Holdings Limited (100%, China)



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12	Indonesia	Bangka Power Plant	Construction	Electricity	Greenfield project (BOO)	100	23	24 MW	25	PT Truba Alam Manunggal Engineering Tbk (100%, Indonesia)
13	Indonesia	PLTA Poso	Construction	Electricity	Greenfield project (BOO)	100	134	195 MW	30	Bukaka Group (..%, Indonesia), Hadji Kalla Group (..%, Indonesia)
14	Indonesia	Pontianak Power Plant	Construction	Electricity	Greenfield project (BOO)	100	56.2	60 MW	25	PT Truba Alam Manunggal Engineering Tbk (100%, Indonesia)
15	Indonesia	Tanjung Jati B Units 3 & 4 Coal-Fired Power Plant	Construction	Electricity	Greenfield (BLT)	100	2,200	1,320 MW	20	Sumitomo Corporation (100%, Japan)
16	Philippines	Ambuklao-Binga Hydroelectric Power Complex	Construction	Electricity	Divestiture	100	495	225 MW	..	SN Power (50%, Norway), Aboitiz Equity Ventures (50%, Philippines)
17	Philippines	Hedcor Sibulan Hydro Plants	Construction	Electricity	Greenfield project (BOO)	100	105	42.5 MW	..	Aboitiz Equity Ventures (100%, Philippines)
18	Philippines	Masinloc Coal-Fired Thermal Power Plant	Operational	Electricity	Divestiture	100	930	1,200 MW	..	AES Corporation (92%, United States)
19	Thailand	GHECO-One Coal-Fired Power Plant	Construction	Electricity	Greenfield project (BOO)	100	1,150	660 MW	25	SUEZ (45%, France), Hemaraj Land and Development Plc (35%, Thailand)
20	Thailand	SIPCO Power Plant	Construction	Electricity	Greenfield project (BOO)	100	224	185 MW	..	Melewar Group (95%, Malaysia)

## Telecommunications

	Country	Project name	Project status	Segment	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Main sponsors
1	Fiji	Digicel Fiji	Operational	Mobile access	Greenfield project (BOO)	100	90.25	21,000 connections	Digicel (100%, Bermuda)
2	Korea, Dem. People's Rep.	CHEO Technology 3G	Operational	Mobile access	Greenfield project (BOO)	100	400	..	Orascom (75%, Egypt, Arab Rep.)





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3	Vanuatu	Vanuatu Digicel	Operational	Mobile access	Greenfield project (BOO)	100	35	10,000 connections	Digicel (100%, Bermuda)
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## Transport

	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Government cash support (US\$ millions)	Type of government support	Capacity size and type	Main sponsors
1	China	Chibi Lushui River Shipping and Power Development Co. Ltd.	Construction	Seaports	Greenfield project (BOT)	100	56.08	n.a.	n.a.	..	Chibi Lushui River Shipping and Power Development Co. Ltd. (100%, China)
2	China	Jinan Jianbang Yellow River Road Bridge	Construction	Roads	Greenfield project (BOT)	100	134.19	n.a.	n.a.	5.278 km	Shandong Jianbang Group (100%, China)
3	China	Yichang Port Affairs Group Ltd.	Operational	Seaports	Divestiture (partial)	51	21.32	n.a.	n.a.	..	Paul Y.-ITC Construction Holdings (51%, Hong Kong, China)
4	Malaysia	Johor Eastern Dispersal Link Expressway	Construction	Roads	Greenfield project (BOT)	100	425	n.a.	n.a.	8.1 km	Malaysian Resources Corp. Bhd (100%, Malaysia)
5	Philippines	New Container Terminal-1	Operational	Seaports	Concession (ROT)	85	10	n.a.	n.a.	300 throughput (thousands)	International Container Terminal Services Inc. (ICTSI) (71%, Philippines)
6	Philippines	Mindanao Container Terminal	Operational	Seaports	Concession (ROT)	100	5	n.a.	n.a.	355 throughput (thousands)	International Container Terminal Services Inc. (ICTSI) (100%, Philippines)
7	Vietnam	Saigon Premier Container Terminal	Construction	Seaports	Greenfield project (BOT)	100	200	n.a.	n.a.	1,500 throughput (thousands)	DP World (80%, United Arab Emirates)
8	Vietnam	Ba Ria-Vung Tau International Container Terminal	Operational	Seaports	Greenfield project (BOT)	100	165	n.a.	n.a.	..	PSA Corp (..%, Singapore)



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Water and sewerage									
	Country	Project name	Project status	Subsector	Type of PPI	Investment commitment (US\$ millions)	Capacity type	Capacity	Main sponsors
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)





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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)



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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)



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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)