



2015 East Asia and Pacific (EAP) PPI¹ Update

- Total investment² in infrastructure³ with private participation in emerging economies in East Asia and the Pacific fell by 16 percent from US\$15.9 billion in 2014 to US\$13.4 billion in 2015
- The Philippines enjoyed its second highest investment, while China dropped to a five-year low
- Power generation accounted for 60 of the region's 79 projects and 91 percent of total investment
- Fifty of the 60 power generation projects were in renewables

This note is a product of the Public-Private Partnership Group of the World Bank, and the Private Participation in Infrastructure Database (PPI Database), written by Henry Kasper and edited by Jenny Chao.

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OVERVIEW

Declining PPI investment. Overall PPI investment in EAP fell from US\$15.9 billion in 2014 to US\$13.4 billion in 2015, representing a 16 percent decline. Falling investment in China, Thailand, Indonesia, and Vietnam, all declining by more than 50 percent year over year, contributed to the drop in investment. As a result, the US\$13.4 billion in total commitments was 15 percent below the 10-year average of US\$15.7 billion. Despite 79 transactions above the previous year, the number remained below the five- and 10-year averages of 104 and 108, respectively.

China down; the Philippines up. Though China had 62 percent of all projects in East Asia (49 out of 79), the country's commitments made up just 22 percent of the region's investment totals. Because of small projects across all three sectors, the average deal decreased to just US\$63 million, resulting in volume significantly below the 5-, 10-, and 20-year investment averages. The Philippines, on the other hand, experienced a banner year with 13 projects totaling US\$5.9 billion in commitments.

Energy sector captures majority of investment. Numerous power generation projects resulted in record energy investment of US\$12.3 billion, capturing a disproportionately large share of regional investment totals (Figures 1 and 2). Renewable energy projects made an active showing, with 50 projects totaling \$5.1 billion.

Support from multilateral development banks (MDB). MDB support was present in only three out of the 79 projects in EAP in 2015. Two of the three projects were in energy; the third was in transport for the Mactan-Cebu International Airport in the Philippines. The vast majority of MDB support consisted of direct loans. Projects worth US\$1.4 billion received US\$381 million (five loans) from MDBs. Support was heavily concentrated in renewables: Thailand's Chaiyaphum Wind Farm received two loans from the Asian

¹ Private Participation in Infrastructure (PPI) as defined by the Private Participation in Infrastructure Database <http://ppi.worldbank.org>

² "Investment" refers to investment commitments at the time of financial closure.

³ "Infrastructure" refers to energy, transport, and water projects serving the public in low- and middle-income countries, including natural gas transmission and distribution, but excluding oil and gas extraction.

FIGURE 1: DISTRIBUTION OF US\$13.5 BILLION PPI INVESTMENT IN 2015

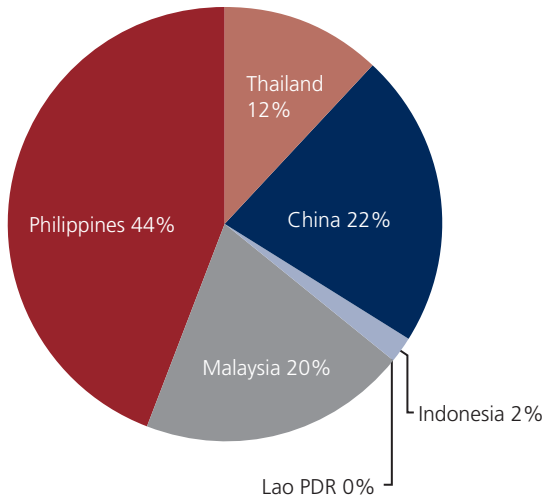
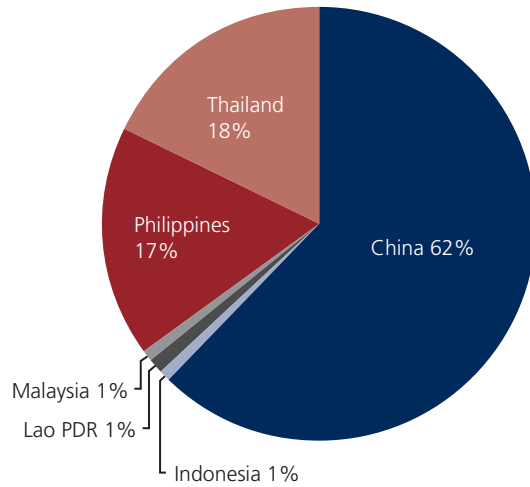


FIGURE 2: DISTRIBUTION OF 79 PPI PROJECTS IN 2015



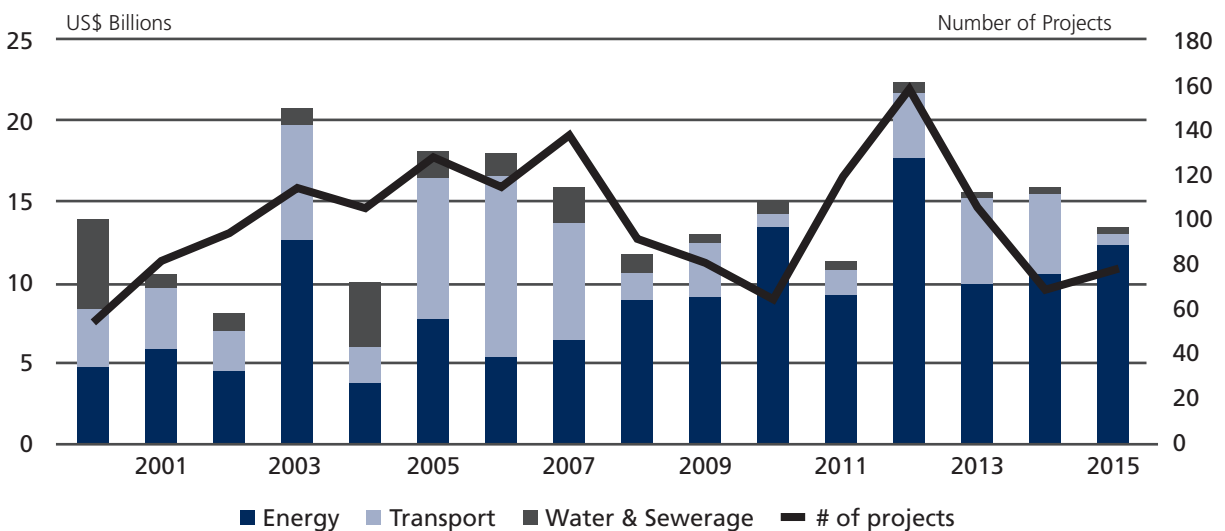
Source: World Bank, Project PPI Database

Development Bank (US\$56 million and US\$30 million) and the Philippine's Ambuklao Hydroelectric Power Plant received two loans, one from International Finance Corporation (US\$110 million) and one from Nordic Invest Bank (US\$110 million).

2 SECTOR OVERVIEW

Most of the projects were in **energy** (60), followed by **water and sewerage** (17) and **transport** (2). Consequently, energy had the greatest investment with US\$12.3 billion, or 91 percent of the region's total. Water and sewerage made up 6 percent, while transport accounted for the remaining 3 percent. (Figure 3 and Table 1).

FIGURE 3: TOTAL PPI INVESTMENT IN ENERGY, TRANSPORT, AND WATER & SEWERAGE



Source: World Bank, PPI Project Database.

* Adjusted by 2014 US CPI

TABLE 1: TOTAL INVESTMENT COMMITTED BY SECTOR IN 2015

	Number of Transactions	Average Investment Commitment (US\$ millions)	Total Investment (US\$ millions)	% of Total	% Change from 5-year average
Energy	60	\$204	\$12,266	91%	0%
Transport	2	\$381	\$761	6%	-77%
Water & Sewerage	17	\$22	\$380	3%	-23%
Total	79	\$170	\$13,407*	100%	-16%

Source: World Bank, PPI Project Database.

Energy investment of US\$12.3 billion was on par with the five-year average and 24 percent above the 10-year average of US\$9.8 billion. The number of projects reaching financial closure was 60, comparable to the 10-year average. All 60 transactions were for electricity generation, 50 of which were renewable energy deals. Solar was the most prevalent (26), followed by wind (11), waste (7), and hydro (6). While 83 percent of all power generation projects were for renewable sources, investment in six coal projects exceeded green energy commitments in 2015: US\$6.3 billion versus US\$5.1 billion, respectively. The largest overall deal was Malaysia's US\$2.7 billion Jimah East Coal Power Plant.

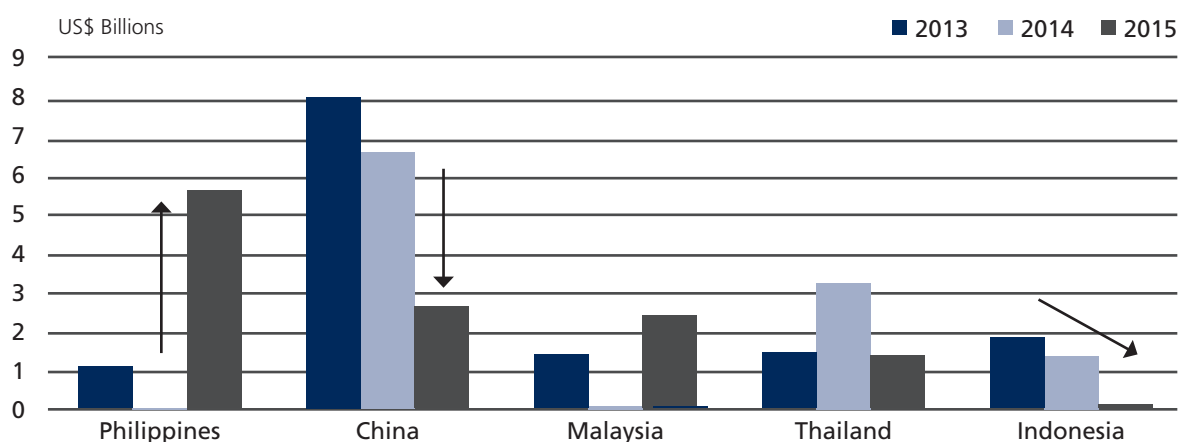
Two **transport** projects totaling US\$761 million closed in EAP in 2015. This was the region's lowest volume since the PPI program began official data collection in 1990. It was also the second time commitments failed to reach US\$1 billion—a marked departure from past years with rich PPI investment in road, rail, and port projects. Nonetheless, the US\$750 million Mactan-Cebu International Airport reached financial closure in the Philippines, as did the US\$11 million Xinhe County General Aviation Airport in China.

A total of 17 **water** projects closed in 2015—all treatment plants in China. The US\$380 million in commitments was the third lowest ever, largely due to fewer projects and lower investment in China.

3 TOP COUNTRIES

Six countries in the EAP region closed 79 deals totaling US\$13.4 billion. Investment in the top five countries over the last three years is shown in Figure 4 below:

FIGURE 4: TOTAL INVESTMENT IN TOP 5 COUNTRIES IN THE LAST 3 YEARS



Source: World Bank, PPI Project Database.

* Adjusted by 2014 US CPI

The top market for PPI investment in 2015 was the **Philippines** (Table 2). The country's 13 projects totaling US\$5.9 billion were all in energy and transport (12 power generation projects and one airport). The number of projects is the third highest ever, nearly doubling the 10-year average of eight deals per year. Investment of US\$5.9 billion is a record for the country as electricity generation continues to be a priority.

TABLE 2: TOTAL INVESTMENT IN TOP COUNTRIES IN EAP, 2015

	Number of Projects	Average Investment (US\$ millions)	Total Investment (US\$ millions)	% of Total Regional Investment
Philippines	13	\$453	\$5,892	44%
China	49	\$61	\$2,967	22%
Malaysia	1	\$2,675	\$2,675	20%
Thailand	14	\$117	\$1,640	12%
Indonesia	1	\$191	\$191	1%
Lao PDR	1	\$42	\$42	<1%
Total	79	\$170	\$13,407	100%

Source: World Bank, PPI Project Database.

4 TOP DEALS IN THE EAP REGION

The top 10 projects in 2015 comprised nearly two-thirds of the region's investment, or US\$8.7 billion out of US\$13.4 billion.

TABLE 3: TOP 10 DEALS IN THE EAP REGION IN 2015

Country	Project	Total Amount (US\$ million)	Sponsors (% Ownership/Sponsor Country)
Malaysia	3B Jimah East Power Plant (coal-fired)	\$2,675	Mitsui (30%/Japan)
Philippines	San Buenaventura Power Plant (coal-fired)	\$1,195	Manila Electric Company (51%/Philippines); Electricity Generating Company (49%/Thailand)
Philippines	Therma Visayas Power Plant (340MW coal-fired)	\$937	Aboitiz Equity Ventures (80%/Philippines); Vivant Corporation (20%/Philippines)
Philippines	Mactan-Cebu International Airport	\$750	GMR Group (40%/India); Megawide Construction Corporation (60%/Philippines)
Philippines	Masinloc II Power Plant Expansion	\$700	AES Corporation (51%/United States); Electricity Generating Company (41%/Thailand); International Finance Corporation (8%/NA)
Philippines	Limay Power Plant (coal-fired)	\$648	San Miguel Corporation (100%/Philippines)
China	Ruyang County Wind Power Plant	\$604	Henan Yatai New Energy Technology Co., Ltd. (NA/NA); Korea Electric Power Company (NA/Korea)
Philippines	Ambuklao Hydroelectric Power Plant refinancing	\$436	SN Power (40%/Norway); Aboitiz Equity Ventures (60%/Philippines)
Philippines	Pagbilao Power Plant (gas-fired)	\$380	Energy World Corporation Ltd. (100%/Australia)
Thailand	Wayu Wind Farm	\$354	Gunkul Engineering (100%/Thailand)

Featured project: Mactan-Cebu International Airport. The \$747 million Mactan-Cebu International Airport project is a brownfield airport concession in Cebu province of the Philippines. The PPP entails taking over the operations of the existing terminal as well as constructing a second terminal under a 25-year build-operate-transfer agreement.

The tender attracted a lot of interest in the market, with seven short-listed candidates, and was finally awarded in April 2014 to a consortium of Megawide Construction and GMR Infrastructure, each with 40 percent, on the basis of the highest fee paid to the government (14.4 billion Philippine pesos).

Financing was a mix of local currency and U.S. dollar financing—reflecting the dual currency revenue streams of the project—from a consortium of local banks and the Asian Development Bank, respectively.

About the Private Participation in Infrastructure Projects Database:

The Private Participation in Infrastructure Database is a product of the World Bank's Public-Private Partnerships Group. Its purpose is to identify and disseminate information on private participation in infrastructure projects in low- and middle-income countries. The database highlights the contractual arrangements used to attract private investment, the sources and destination of investment flows, and information on the main investors. The site currently provides information on more than 8,000 infrastructure projects dating from 1984 to 2015. It contains over 50 fields per project record, including country, financial closure year, infrastructure services provided, type of private participation, technology, capacity, project location, contract duration, private sponsors, debt providers, and development bank support. This project represents the best efforts of a research team to compile publicly available information on those projects, and should not be seen as a fully comprehensive resource. Some projects—particularly those involving local and small-scale operators—tend to be omitted because they are usually not reported by major news sources, databases, government websites, and other sources used by the PPI Projects database staff. For more information, please visit: <http://ppi.worldbank.org/>.

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