



PPI¹ in IDA Countries, 2009 to 2014

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 Alexander N. Jett.

1 OVERVIEW

Private investment² in infrastructure³ in IDA⁴ countries from 2009 to 2014 totaled US\$73 billion. Over the same six-year period, 189 projects⁵ attained financial closure in four sectors: telecom, energy, transport, and water and sewerage. Of these projects, the vast majority of deals – 128 of 189 -- were in energy; telecom followed with 35; transport had 22; and water had four. When comparing private investment in IDA countries to global PPI from 2009 to 2014, the difference is notable: investment in IDA countries was roughly 7% of total PPI, or just US\$73 billion of the US\$1 trillion in global commitments. The number of projects in IDA countries versus those in non-IDA countries is also comparably disproportionate: 189 in IDA versus 1,833 in non-IDA countries (Figure 1).⁶

Of total investment commitments in IDA countries, telecom and energy dominated by receiving nearly nine (US\$0.877) out of every US\$10.00 invested. Specifically, investment in telecom was highest among all sectors at US\$41.7 billion, capturing a 57% share of global investment commitments in IDA countries (Figure 2). Notably, over US\$39.3 billion of the US\$41.7 billion in telecom investment was a result of additional capital expenditures for existing projects. When removing this sector from the equation, total PPI in IDA countries drops to US\$31 billion, or experiences a 57% reduction. The next largest sector, energy, received investment commitments of US\$22.1 billion, or 31% of the total. Investments in transport (US\$8.8 billion) and water (US\$127 million) were far less, together comprising approximately 12% of total PPI.

In contrast, investment in non-IDA and blended countries were more evenly distributed among energy, telecom, and transport. Energy led with US\$381 billion, or 41% of the total, while telecom comprised US\$303 billion, or just over 32% of the total. Transport captured US\$235 billion, or 25% (Figure 3).

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

² “Investment” refers to investment commitments at the time of financial closure, or, in the case of brownfield concessions, contract signing.

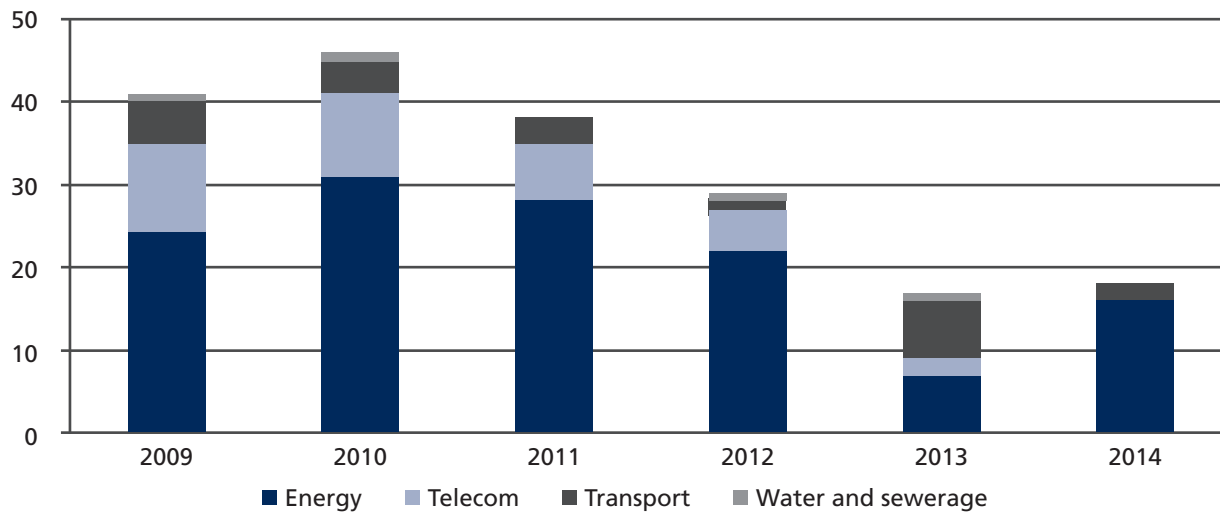
³ “Infrastructure” refers to energy, telecom, transport and water and sewerage projects.

⁴ IDA is defined and explained further here: <http://www.worldbank.org/ida/borrowing-countries.html>. Sri Lanka became a “blended” country as per IDA criteria in July 2012, but is counted as an IDA country for the purposes of this note in order to capture its activity from 2009 to 2012.

⁵ “Projects” refers to concessions, divestitures, greenfield projects, brownfield projects, and management and leases.

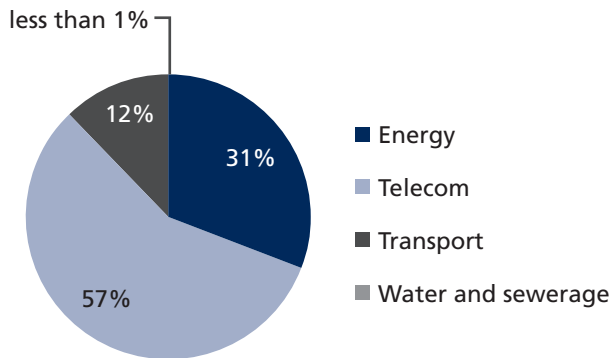
⁶ Although IDA countries comprise 43% of the sample universe, they made up a disproportionately small amount of investment (7%) and number of projects (10%).

FIGURE 1: NUMBER OF PROJECTS IN IDA COUNTRIES, BY SECTOR, 2009–2014



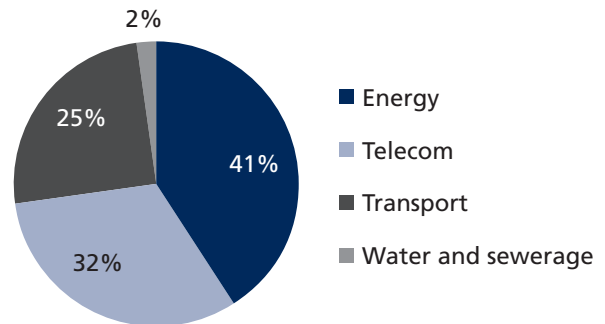
Source: World Bank and PPIAF, PPI Project Database.

FIGURE 2: PERCENT OF INVESTMENT IN IDA COUNTRIES BY SECTOR, 2009-2014



Source: World Bank and PPIAF, PPI Project Database.

FIGURE 3: PERCENT OF INVESTMENT IN NON-IDA & BLENDED COUNTRIES BY SECTOR, 2009-2014

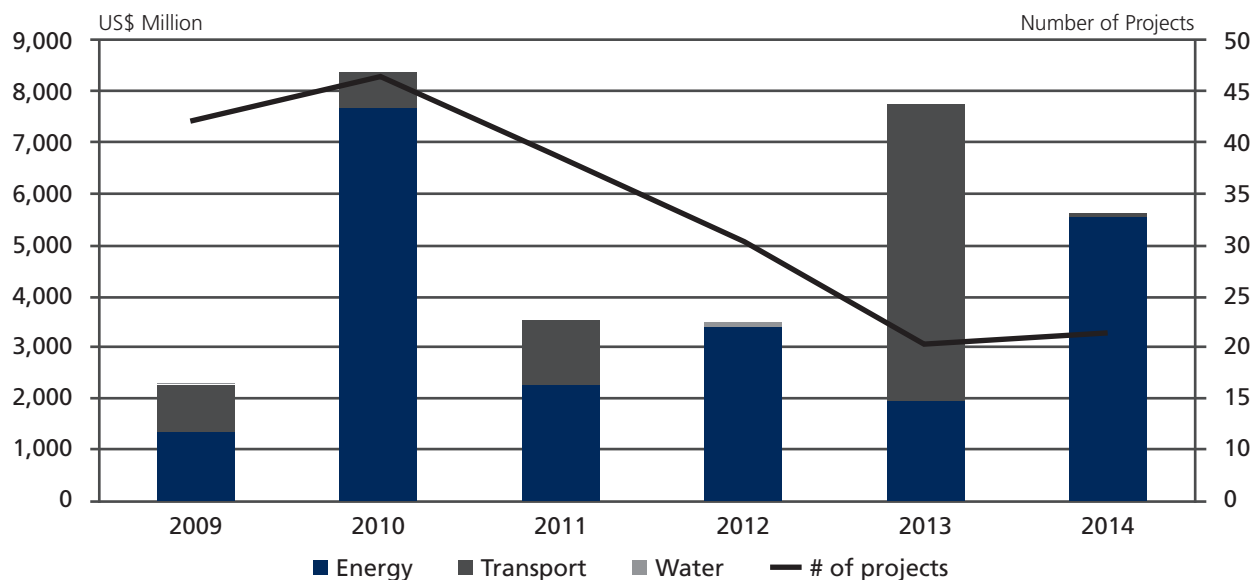


Source: World Bank and PPIAF, PPI Project Database.

Investments in transport were also received in IDA, non-IDA and blended countries; however, the proportion of investment in transport in non-IDA and blended countries was much larger than in IDA countries. For example, transport comprised 12% of total PPI (US\$8.8 billion in 22 projects) in IDA countries versus 24% (US\$235 billion in 453 projects) in non-IDA and blended countries. The amounts are equally distorted for water: US\$127 million in four projects in IDA countries versus US\$20.4 billion in 194 projects in non-IDA and blended countries.

When stripping out telecom in IDA countries, energy captured the majority of investment for the majority of years between 2009 and 2014. The one exception was in 2013, when US\$5.8 billion was received in transport. Several mega projects took place that year in Sub-Saharan Africa, and a pair of projects in Nigeria—the US\$2.9 billion Onne port expansion and the US\$1.5 billion Lekki Deep Seaport—made up roughly 80% of the US\$5.8 billion.

FIGURE 4: INVESTMENT COMMITMENTS IN IDA COUNTRIES BY SECTOR, 2009–2014 (EXCLUDING TELECOM)

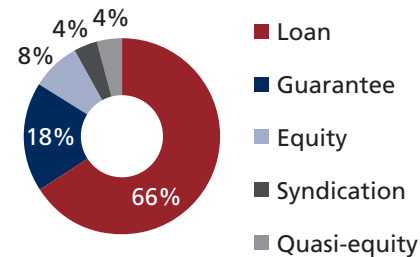


Source: World Bank and PPIAF, PPI Project Database.

2 MULTILATERAL SUPPORT

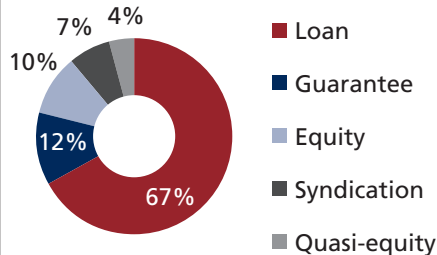
The support of multilateral development banks (MDBs)⁷ played a stronger role in IDA countries than in non-IDA countries and blended countries. In IDA countries, approximately 22%, or 42 projects,⁸ received MDB support. This compares to 11% (135 projects) in non-IDA countries and only 8% (44 projects) in blended countries. MDB involvement in IDA countries was highest in the energy sector, with 37 projects (29% of projects) receiving support.

FIGURE 5: MDB SUPPORT IN IDA COUNTRIES, 2009–2014



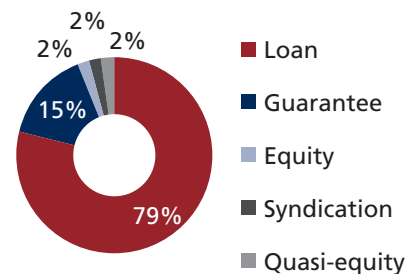
Source: World Bank and PPIAF, PPI Project Database.

FIGURE 6: MDB SUPPORT IN BLENDED COUNTRIES, 2009–2014



Source: World Bank and PPIAF, PPI Project Database.

FIGURE 7: MDB SUPPORT IN NON-IDA COUNTRIES, 2009–2014



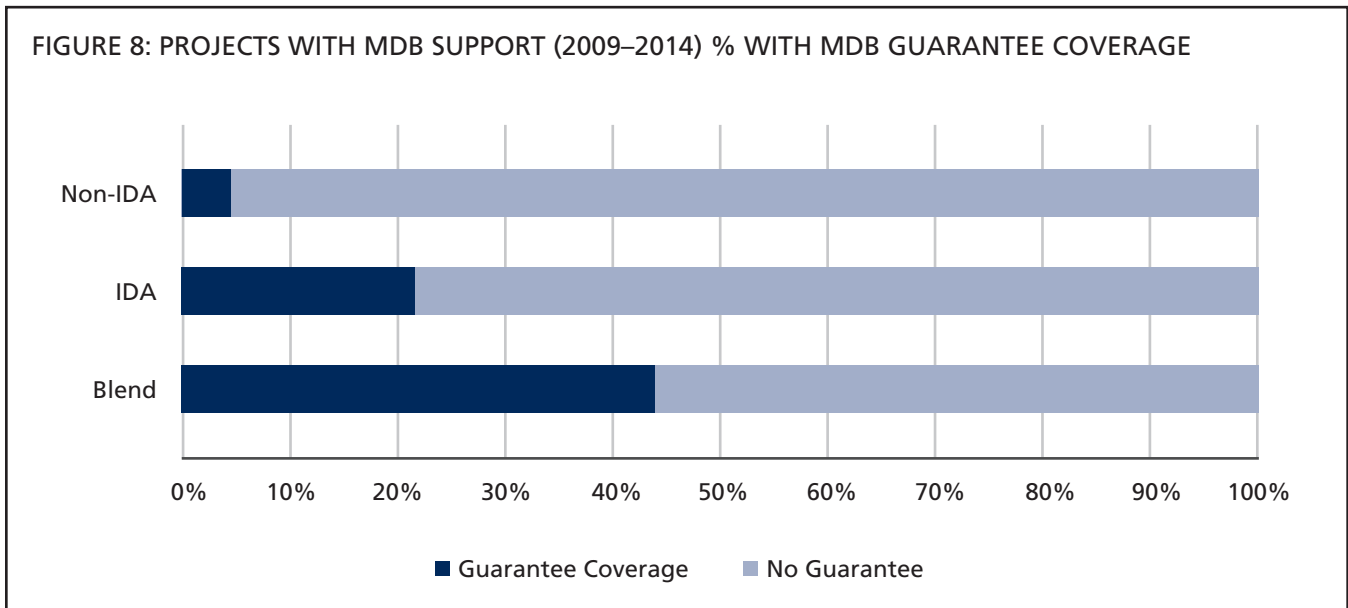
Source: World Bank and PPIAF, PPI Project Database.

⁷ Multilateral support refers to financial assistance to the project company such as loans, guarantees and syndications.

⁸ This analysis is based on the available data for IDA countries (189 projects), blended countries (550 projects) and non-IDA countries (1,283 projects). The calculation was drawn based on the number of times that each type of MDB's support was used for those projects.

When MDB support was used, the type of support also varied based on IDA status. Within IDA countries, guarantees were employed 18% of the time (14 out of 79). This compares to guarantees in non-IDA countries being employed only 2% of the time (4 out of 201). Guarantees in IDA blended countries was in-between the two, being utilized approximately 13% of the time (7 out of 58). The category of guarantees includes coverage of political risk as well as other risks resulting from not honoring a sovereign obligation. The fact that infrastructure projects in IDA countries utilized guarantees in nearly one-fifth of all deals suggests that these risks tend to be greater in IDA countries, especially compared with non-IDA countries, which employed guarantees in less than 1% of projects.

The effects of guarantees are even stronger when looking at the total number of projects with MDB support (see Figure 8). In this case, non-IDA countries are clearly the outliers.



Investors in non-IDA countries were also more likely to request lending products such as direct loans or syndications. For example, non-IDA countries received 159 loans and 57 syndications for 135 infrastructure projects. Although IDA countries also received loans and syndications for projects, they were far fewer: 52 loans and three syndications for 42 projects.

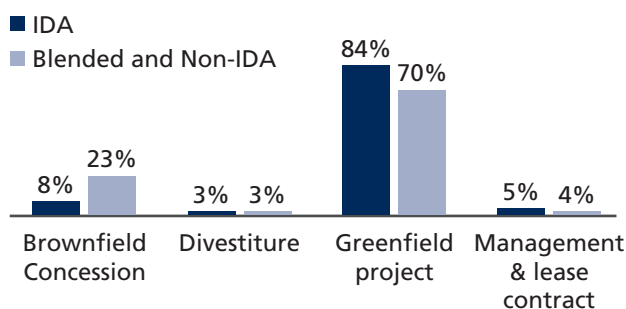
3 RISK SHARING AND BIDDING

Greenfield projects dominated the investment landscape in IDA, non-IDA, and blended countries. In IDA countries, greenfield projects comprised 84% of all projects and 88% of all commitments (US\$63.7 billion), often with higher investment amounts per project. One example is the Lao People’s Democratic Republic. A pair of mega greenfield hydropower plants were received in 2014—the Xe-Pian Xe-Namnoy and the Nam Ngiep 1 HPP, valued at US\$1 billion and US\$980 million, respectively. With 88% of total commitments, greenfield projects were found across most other subsectors including rail, airports, roads, and water utility projects.

The high proportion of greenfield projects in IDA countries likely exists because there was a greater need to build new infrastructure than to maintain existing assets. Brownfield projects (concessions), on the other hand, are generally more common in countries with mature infrastructure.

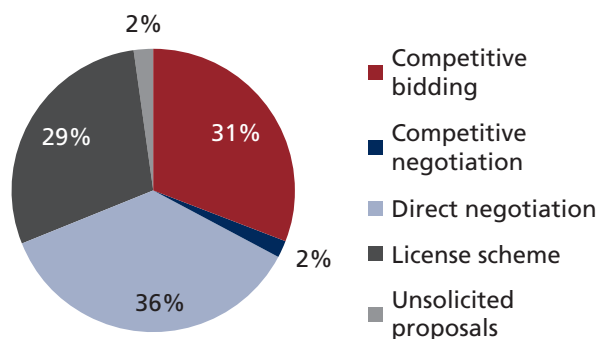
In addition, IDA countries typically awarded projects through direct negotiation (36%). Projects awarded through competitive bidding (31%) and license approaches (29%) were also favored (Figure 10). However, projects awarded through competitive negotiation (2 projects) or unsolicited proposals (3 projects) were minimal.⁹ In contrast, non-IDA and blended countries typically awarded projects by way of competitive bidding (54%) (See Figure 11.)

FIGURE 9: PERCENT OF PROJECTS BY TYPE OF PPI, 2009–2014



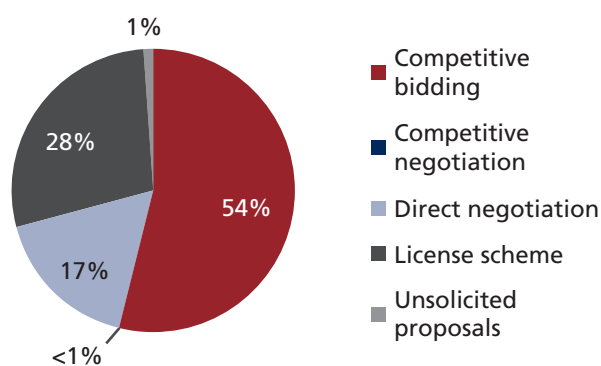
Source: World Bank and PPIAF, PPI Project Database.

FIGURE 10: AWARD METHOD IN IDA COUNTRIES, 2009–2014



Source: World Bank and PPIAF, PPI Project Database.

FIGURE 11: AWARD METHOD IN NON-IDA & BLENDED COUNTRIES, 2009–2014



Source: World Bank and PPIAF, PPI Project Database.

4 MOST ACTIVE IDA COUNTRIES

Leading the way with investment commitments was **Lao PDR** with US\$7 billion in nine projects—by far the highest of any IDA country.¹⁰ Of the nine projects, eight were in energy and one was in telecom. The largest transaction was the 1,878 megawatt Hongsa coal power plant, totaling US\$3.9 billion. The power plant will eventually sell electricity to Thailand, powering over two million households.¹¹ Interestingly, the majority of energy investment in Lao PDR has targeted the production and export of power generation to Thailand, mainly in the form of hydropower. From 2009 to 2014, seven out of eight energy projects fall into this category. As a result, the government estimates that installed capacity of power plants is expected to grow from 3,200 megawatts in 2013 to 12,500 megawatts by 2020.¹² Furthermore, about 85% of future electricity generation from the eight dams will be exported to Thailand, which has agreed to purchase up to 7,000 megawatts of power by 2020 to meet growing demand in the country. The Hongsa coal-fired power plant—nearing completion—will also export electricity to Thailand. Of Lao PDR’s projects, approximately half had a payment guarantee or a revenue guarantee. The experience of Lao PDR shows that with proper risk allocation, PPP projects can reach financial closure in IDA countries.

⁹ The analysis is based on the available data of 133 projects in IDA countries and 1,514 projects in non-IDA and blended countries.

¹⁰ Analysis excludes Nigeria, which had US\$16.7 billion of investment from 2009–2014—most of which was in telecom.

¹¹ Hongsa Power. Presentation available at http://www.dmr.go.th/download/lao_thai56/pdf_dat/Hongsa%20Mine%20Mouth%20Power%20Projec.pdf

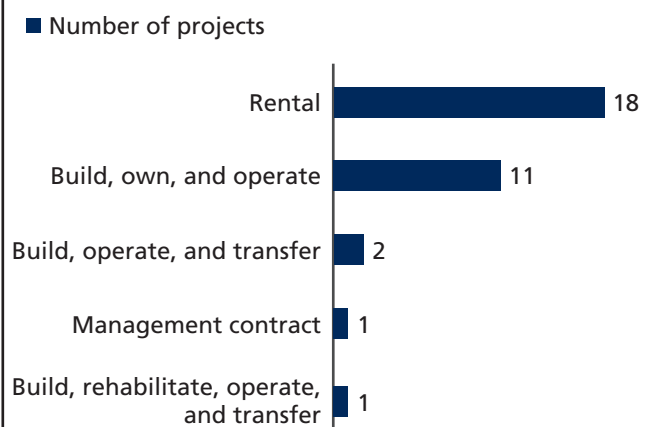
¹² Lao PDR Ministry of Energy and Mines’ Energy Policy and Planning Department. Available at <http://laoenergy.la/index.php>

Bangladesh had 34 projects—the highest number—and the third highest number of investment commitments.¹³ Of the 34 projects, 32 were in energy, outpacing any other IDA country. The Munshiganj Mawa Orion-Long King coal-fired plant was the largest deal at US\$579 million. Notably, over half of all energy projects were **rental power projects** (Figure 12).¹⁴

Background is useful here. In 2007, Bangladesh sought to fix the country’s power shortage problem, characterized by daily brown-outs and black-outs. To narrow the gap between power supply and demand, the government tendered a package of six contracts for “quick rental power plants” (QRPPs), each offering temporary power at peak load times. By 2010 it became official: the government’s

Power System Master Plan noted that QRPPs would be the main tool to reduce power shortages in the country.¹⁵ Under the plan, QRPPs were commissioned to add 1,000MW of power. But since rented plants are relatively inefficient and costly, they were meant to be a short-term solution until the country added greater capacity to the existing grid. The policy of quick rentals was opposed by many, including numerous experts and the International Monetary Fund, largely because it forced the government to subsidize the high cost of temporary electricity. Despite opposition, the policy has not shifted, and the government continues to purchase electricity at exorbitant rates that are being passed on to consumers. Meanwhile, QRPPs continue to comprise a growing share of energy production in Bangladesh, increasing from 5% in 2010 to 17% in 2012.¹⁶ As of 2015, approximately 2,600 megawatts of the country’s 10,800 megawatts—or 20% of installed capacity—came from 3/5-year rentals or 15-year rentals.¹⁷ Currently, nearly half of Bangladesh’s energy sector subsidies go toward rentals despite comprising only 20% of electric generation.

FIGURE 12: SUBTYPE OF PROJECTS IN BANGLADESH



Source: World Bank and PPIAF, PPI Project Database.

5 ANNEX

TABLE 1: TOTAL PPI IN IDA COUNTRIES FROM 2009 TO 2014, BY SECTOR (US\$ MILLION)

	Energy	Telecom	Transport	Water & Sewerage	Grand Total
2009	\$1,362	\$10,500	\$914	\$1	\$12,777
2010	\$7,642	\$10,707	\$728	\$0	\$19,077
2011	\$2,275	\$8,419	\$1,254	\$0	\$11,948
2012	\$3,383	\$7,108	\$0	\$126	\$10,617
2013	\$1,924	\$4,598	\$5,796	\$0	\$12,319
2014	\$5,557	\$387	\$80	\$0	\$6,024
Grand Total	\$22,143	\$41,720	\$8,772	\$127	\$72,761

Source: World Bank and PPIAF, PPI Project Database.

¹³ Banglalink telecom project description from World Bank’s PPI database.

¹⁴ Investment in rental power plants is estimated according to a formula taking into account the MW of installed capacity, cost per MW, and the number of years in the contract.

¹⁵ Bangladesh Institute of Development Studies. Available at http://bids.org.bd/publication/DPaper/Discussion_Paper_01.pdf

¹⁶ Bangladesh Institute of Development Studies. Available at http://bids.org.bd/publication/DPaper/Discussion_Paper_01.pdf

¹⁷ Bangladesh Power Development Board. Available at http://www.bpdb.gov.bd/bpdb/index.php?option=com_content&view=article&id=5&Itemid=6

TABLE 2: NUMBER OF PROJECTS IN IDA COUNTRIES FROM 2009 TO 2014, BY SECTOR*

	Energy	Telecom	Transport	Water & Sewerage	Grand Total
2009	24	11	5	1	41
2010	31	10	4	1	46
2011	28	7	3	0	38
2012	22	5	1	1	29
2013	7	2	7	1	17
2014	16	0	2	0	18
Grand Total	128	35	22	4	189

Source: World Bank and PPIAF, PPI Project Database.

* Table 2 includes new projects only and does not include expansions to existing facilities. There were several such expansions recorded by the PPI Database in IDA countries between 2009 and 2014, including Henri Konan Bédié Bridge (Côte d'Ivoire), Vientiane Airport Terminal (Lao PDR), Port of Monrovia (Liberia), Maputo Port (Mozambique), and Apapa Container Terminal Concession (Nigeria).

About the Private Participation in Infrastructure Projects Database:

The Private Participation in Infrastructure Projects Database is a joint product of the World Bank's Public-Private Partnership Group and the Public-Private Infrastructure Advisory Facility (PPIAF). 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 6,000 infrastructure projects dating from 1984 to 2013 and is updated with last year's data six months after year-end (July 2014). It contains over 30 fields per project record, including country, financial closure year, infrastructure services provided, type of private participation, technology, capacity, project location, contract duration, private sponsors, 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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