



#### Acknowledgement & Disclaimer

This report was written by Deblina Saha (Task Team Leader), with data support from Sovannaroth Tey and Harman Bhatia, editing by Iuliia Zemlytska and design by Victoria Adams-Kotsch. The team is very grateful for the support and guidance received from Laurence Carter (Senior Director, IPG Group), Jordan Schwartz (Director, IPG Group), Abha Joshi-Ghani (Senior Adviser, IPG Group), and Towfiqua Hoque (Senior Infrastructure Finance Specialist, IPG Group). The team is thankful to Fernanda Ruiz-Nuñez (Senior Economist, IPG Group) for providing valuable comments that helped shape the report. Cover photo © Dominic Chavez/WBG. Page iv photo © ASaber91/Creative Commons CC BY 2.0.

This report describes Private Participation in Infrastructure (PPI) as indicated in the <u>Private Participation in Infrastructure Database</u>. The database records investment information for infrastructure projects in low- and middle-income countries globally.

The PPI Database represents the best efforts of a research team to compile publicly available information, 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.

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#### Executive Summary

- **2017** was a stellar year for PPI investments in IDA countries. Private participation in infrastructure (PPI) investments<sup>1</sup> in IDA countries totaled US\$7.9 billion across 35 projects in 17 countries in 2017, compared to US\$2.9 billion in 2016 across 18 projects in 10 countries. IDA countries accounted for 8.5 percent of total PPI investment in 2017, up from 4.3 percent in 2016.
- Investment as a share of GDP is more significant for IDA countries. In 2017, IDA countries received PPI investment equivalent to 0.8 percent of their GDP, compared to non-IDA countries where it was only 0.3 percent. The cumulative investment share over the last five years was also higher for IDA countries.
- Myanmar, Lao PDR, and Cambodia accounted for 60 percent of the 2017 IDA investments, compared to no investments in these countries for the preceding two years. For Myanmar and Cambodia, this was only the second and third time, respectively, in the last 10 years that either country received any investments.
- Honduras, Bangladesh, and Senegal received consistent investment in all five years and collectively have the highest number of projects with PPI investments. Ghana had the highest level of cumulative investment in the five-year period from 2013 to 2017 equivalent to one-fifth of IDA totals during the period.
- In 2017, for the first time in 10 years, PPI projects were recorded in Afghanistan, Burkina Faso, Madagascar, and Samoa.
- As a sector, energy generation has been the key driver of PPI investments in IDA countries.
   Within energy, notable is the shift to renewables mirroring that in non-IDA countries.
  - Renewable energy accounted for 70 percent of all power projects in 2017, up from 38 percent in 2013.
- Multilaterals and bilaterals are critical financing sources for these PPPs. Forty-two percent of projects in IDA countries received multilateral financing in the last five years versus 13 percent for non-IDA countries. Similarly, 42 percent of projects in IDA countries received financing from bilateral agencies, versus 7 percent for non-IDA countries.
- Even before projects are financed, development agencies support project preparation in IDA countries. Six (of 35) projects of the 2017 IDA cohort benefited from project preparation donor support and three projects benefitted from IFC transaction advisory services.
- **High proportion of directly negotiated projects.** Twenty-five percent of projects in IDA countries were awarded through direct negotiations compared to 10 percent in non-IDA countries highlighting the need for strengthening competition, governance, and transparency.
- **Investments are predominantly in greenfield infrastructure projects** amounting to 79 percent of the total investment in IDA countries over the past five years.

<sup>1</sup> As reported by the PPI Database that records private sector investment commitments in energy, transport, water, and ICT backbone infrastructure projects recorded at the time of financial closure in low- and middle-income countries.

#### 1. Introduction

This note analyzes trends in investment commitments in infrastructure projects with private sector participation (hereafter referred to as PPI investments) in countries eligible for support from the International Development Association (hereafter—called IDA countries²) during the five-year period from 2013 to 2017. The note analyzes investment commitments at the time of financial closure in energy³, transport, water, and information and communication technologies (ICT) backbone projects serving the public in IDA countries. For the first time, reported investment also includes ICT backbone infrastructure projects such as fiber optic cables, mobile towers, and other hard assets, with active government participation.

For the purpose of this review, we focus on 59 countries (see annex I) that are eligible for IDA assistance and exclude blend<sup>4</sup> countries. These 59 countries account for 3.5 percent of the gross domestic product (GDP) and 17 percent of the population of emerging markets and developing economies (EMDEs)<sup>5</sup>.

#### 2. Overview

From 2013 to 2017, PPI investments across 113 projects in 30 out of the 55 IDA countries amounted to US\$22.3 billion<sup>6</sup>. This accounts for almost five percent of PPI investments in all EMDEs (US\$486.3 billion). After a dip in 2015 (on account of lack of investments in Lao PDR and Ghana, which together captured almost half of the total PPI investments in 2014), the share of IDA countries in the total EMDE PPI investment has been steadily rising to reach 8.5 percent in 2017 from 4.3 percent in 2016 (figure 1). It is noteworthy that while the total EMDE PPI investment dropped significantly in 2016 as compared to 2015, the level of PPI investment in IDA countries remained almost the same. Remarkably, in 2017, when EMDE PPI investment increased by 37 percent, IDA PPI investments more than doubled compared to 2016 levels (see section 2.1 for more details on investment trends in 2017).

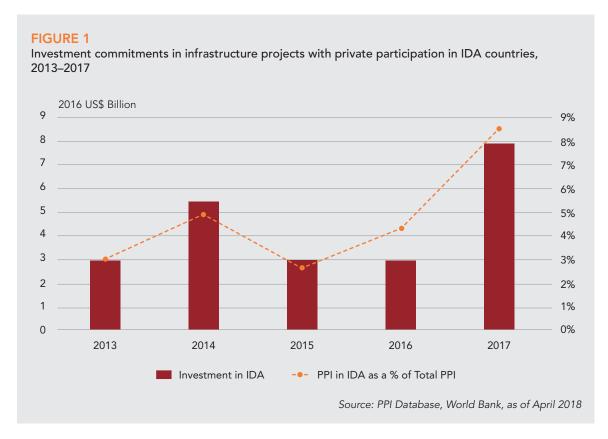
<sup>2</sup> As currently defined by the World Bank for fiscal year 2018, IDA countries are those with gross net income (GNI) per capita below the threshold of US\$1,165.

<sup>3</sup> In the case of natural gas it includes transmission and distribution, but excludes oil and gas extraction.

<sup>4</sup> Blend countries were excluded from IDA and non-IDA countries as they are in a pre-graduation phase. Blend countries are eligible for IDA assistance but are also creditworthy for IBRD borrowing. The blend country list includes 16 countries: Cameroon, Cape Verde, the Republic of Congo, the Dominican Republic, India, Grenada, Moldova, Mongolia, Nigeria, Pakistan, Papua New Guinea, St. Lucia, St. Vincent and the Grenadines, Timor-Leste, Uzbekistan, and Zimbabwe. Inactive countries such as Eritrea, Somalia, Sudan, and Syria are included in the analysis as PPI investments have been recorded in Somalia and Sudan.

<sup>5</sup> The EMDE GDP data was extracted from the World Economic Outlook published by the International Monetary Fund (IMF).

<sup>6</sup> All monetary values are expressed in U.S. dollars at 2016 prices (adjusted by the U.S. consumer price index).

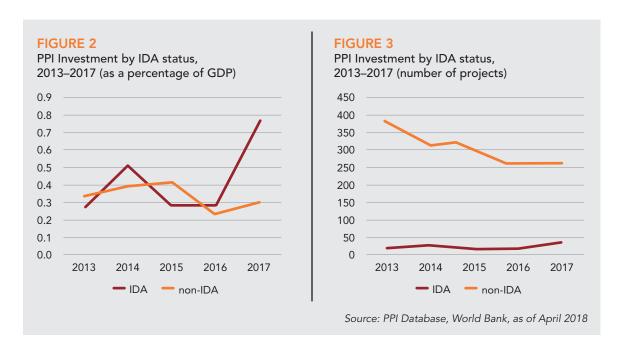


The highest level of PPI investments was received by Ghana amounting to US\$4.2 billion, or about one-fifth of the total PPI investments across all IDA countries. The spike was mainly on account of two megaprojects—the Tema Port Expansion Project and Kpone Independent Power Project.

Honduras led in the highest number of projects, a total of 24 out of 113 projects in IDA countries, followed by Bangladesh and Senegal with 11 projects each. Of the 30 IDA countries that received PPI investments during this period, 14 had but a single project over the entire period.

When looking at PPI investments as a percentage of GDP during the 2013–2017 period, all IDA countries, as a group, received investments that are a higher percentage of GDP compared to non-IDA countries<sup>7</sup> during all years of the study. This tendency held, except for 2015 when the US\$35.6 billion IGA airport project in Turkey reached financial close causing non-IDA countries' investment as a percentage of GDP to leapfrog in 2015 (figure 2). It should be noted that while the number of projects that are not in IDA countries has been declining, there has been a steady increase in the number of projects in IDA countries (figure 3).

<sup>7</sup> Non-IDA countries are EMDEs excluding IDA countries and blend countries.



### 2.1 2017—A STELLAR YEAR FOR PPI INVESTMENT IN IDA COUNTRIES

With US\$7.9 billion across 35 projects, 2017 was an exceptional year for PPI investments in IDA countries (See annex II for project details). Not only was the investment level more than double the 2016 level, it was also 42 percent higher than the average investment over the past five years. This investment level was among the highest since 2012. Seventeen IDA countries received PPI investments in 2017, with an average investment of US\$466 million in each. See table 1 for the year-on-year comparative summary of PPI investments in IDA countries.

TABLE 1. YEAR-ON-YEAR COMPARISON OF PPI INVESTMENT IN IDA COUNTRIES, 2013-2017										
Year	2013	2014	2015	2016	2017					
No. of IDA countries with PPI Projects	11	13	8	10	17					
No. of PPI Projects in IDA Countries	17	28	15	18	35					
PPI Investments in IDA Countries (US\$ bn)	3.0	5.4	3.0	2.9	7.9					
PPI in IDA Countries as % of PPI in EMDE	3.0%	4.9%	2.6%	4.3%	8.5%					
Top 3 IDA Countries	Honduras, Ghana, and Cote d'Ivoire	Lao PDR, Ghana, and Bangladesh	Zambia, Honduras, and Nepal	Ghana, Honduras, and Bangladesh	Myanmar, Lao PDR, and Cam- bodia					
Investments in Top 3 as % of Total PPI Invest- ments	78.2%	65.4%	57.4%	93.7%	60.5%					

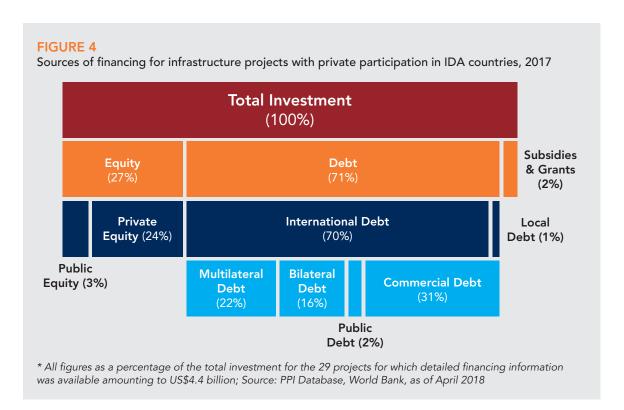
Source: PPI Database, World Bank, as of April 2018

The performance boost led by Myanmar, Lao PDR, and Cambodia for PPI investments in 2017 was notable, since none of the three countries received any PPI investments in the last two years. Moreover, for Myanmar and Cambodia this was only the second and third time in the last 10 years, respectively, that either country received any investments. Also in 2017, for the first time in 10 years, PPI projects were recorded in Afghanistan, Burkina Faso, Madagascar, and Samoa.

	H PRIVATE PARTICIPATION IN IDA CO	
Country	Total Investment (US\$ in million)	Number of Projects
Myanmar	\$1934	3
Lao PDR	\$1850	3
Cambodia	\$1013	2
Bangladesh	\$618	3
Ghana	\$550	2
Rwanda	\$422	3
Mozambique	\$357	2
Honduras	\$260	3
Nepal	\$258	4
Madagascar	\$245	1
Mali	\$136	1
Senegal	\$114	3
Zambia	\$59	1
Burkina Faso	\$45	1
Samoa	\$29	1
Uganda	\$19	1
Afghanistan	\$19	1
IDA Total	\$7,927	35

#### 2.2 SOURCES OF FINANCING FOR 2017 PPI INVESTMENTS

In 2017, detailed financing information was available for approximately 83 percent of IDA PPI projects (29 out of 35 projects). For the 29 projects, which have a combined investment commitment of US\$4.4 billion, the investments were dedicated entirely to building physical assets, with no investment earmarked for government fees. Figure 4 provides a detailed breakdown of the sources for this investment. In 2017, three energy projects and one ICT backbone project received some form of government subsidy. This is the highest number of projects receiving government subsidies in five years. Usually, the share of projects receiving a government subsidy in IDA countries is much lower than that in non-IDA countries.



Private sources led by commercial debt accounted for more than half of the investments, followed by development finance institution (DFI) sources, that is, multilateral and bilateral development institutions—which accounted for 39 percent (see table 3). Although commercial debt accounted for 31 percent of the total investment, more than half of it was accounted for by one hydropower project in Laos, which received US\$0.8 billion worth of loans from commercial debt providers. If we exclude this project, the percentage of commercial debt decreases to 17 percent. In terms of the number of projects, 22 out of 35 projects<sup>8</sup> received DFI debt, while only 10 projects received debt from commercial providers.

TABLE 3. BREAKDOWN OF SOURCES OF FINANCING FOR 2017 INVESTMENT BY PUBLIC, PRIVATE, AND DFI SOURCES											
		e Sources Investment)	DFI Sources (39% of Investment)				Public Sources (6% of Investment)				
Particulars	Equity	Commercial Debt	MDB Debt	Bilateral Debt	Grants	Equity	Equity	Subsidy	Debt		
No. of Projects	29	11	14*	14*	2	2	7	3	2		
Amount (USD mn.)	\$1.055	\$1.376	\$941	\$690	\$52	\$12	\$142	\$20	\$107		
Amount (% of total Investments)	24.0%	31.4%	21.5%	15.7%	1.2%	0.3%	3.2%	0.4%	2.4%		

<sup>\*</sup> Of these, eight projects received joint multilateral and bilateral support; Source: PPI Database, World Bank, as of April 2018

<sup>8</sup> The DFI debt amount was available for 20 projects. For the remaining two projects, while DFI participation as debt provider was known, the complete financing details were not available.

In 2017, for IDA countries, more debt came from multilaterals rather than bilateral institutions (US\$941 million as opposed to US\$690 million). This contrasts with the state of financing in non-IDA countries, where only 8 percent of the total debt was received from multilateral sources as compared to 33 percent from bilateral sources. Also, the share of public debt in non-IDA countries, at 17 percent, was higher than that of IDA countries, where only 2 percent of debt came from public sources.

Thirteen bilateral and 16 multilateral institutions provided debt to PPI projects in IDA countries in 2017 (see tables 4 and 5 for details).

TABLE 4. NUMBER OF PROJECTS AND AMOUNT OF DEBT FINANCED BY BILATERAL INSTITUTIONS							
Bilateral Institutions	Financing Amount (US\$ million)	No. of Projects					
Netherlands Development Finance Company (FMO)	\$129	6					
Thai Exim Bank	\$118	2					
Commonwealth Development Corporation (CDC)	\$103	1					
Agence Francaise de Developpement (AFD)	\$79	3					
Overseas Private Investment Corporation (OPIC)	\$65	3					
German Investment Corporation (DEG)	\$53	2					
Development Bank of Rwanda	\$26	1					
EXIM Bank of India	\$26	1					
CDC Group	\$23	1					
KfW Bankengruppe	\$23	1					
Japan International Cooperation Agency (JICA)	\$23	1					
Development Bank of Southern Africa (DBSA)	\$11	1					
Finnish Fund for Industrial Corporation (FinnFund)	\$10	1					
Total	\$690	24					

Source: PPI Database, World Bank, as of April 2018

TABLE 5: NUMBER OF PROJECTS AND AMOUNT OF DEBT FINANCED BY MULTILATERAL INSTITUTIONS								
Multilateral Institutions	Financing Amount (US\$ million)	No. of Projects						
International Finance Corporation	388	10						
Africa Finance Corporation	110	1						
Emerging Africa Infrastructure Fund	88	5						
Asian Development bank	51	2						
OPEC Fund for International Development	45	2						
International Development Association	40	1 1						
West African Development Bank	30	2						
African Export Import Bank	26	1						
Eastern and Southern African Trade and Development Bank	26	1						

TABLE 5: NUMBER OF PROJECTS AND AMOUNT OF DEBT FINANCED BY MULTILATERAL INSTITUTIONS								
Multilateral Institutions	Financing Amount (US\$ million)	No. of Projects						
Islamic Corporation for the Development of the Private Sector	22	1						
Inter-American Development Bank	22	1						
Climate Investment Funds	21	1						
Private Infrastructure Development Group	21	1						
Asian Infrastructure Investment Bank	20	1						
African Development Bank	19	1						
FC-Canada Climate Change Program	12	1						
Total	\$941	24						

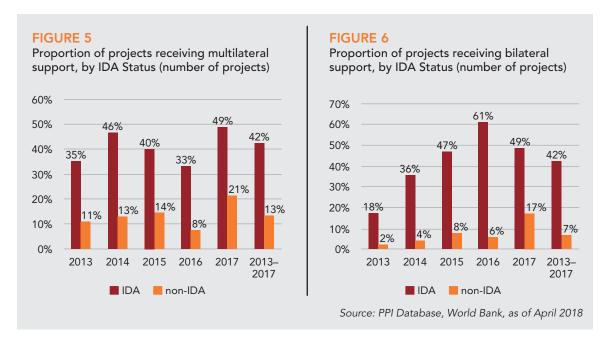
Source: PPI Database, World Bank, as of April 2018

In addition to providing debt, the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA) also supported projects through other financing instruments (all other DFIs only provided debt financing):

- MIGA extended three guarantees worth US\$265 million across three projects in IDA countries: an energy project in Bangladesh, a transport project in Madagascar, and an ICT backbone project in Myanmar.
- IFC provided risk management facilities worth US\$23 million to five projects (four energy and one transport) as well as syndication support of US\$375 million to nine projects.
- IFC also contributed total equity of US\$11.8 million to two projects: an oil-fired power plant in Senegal (US\$1 million) and a port terminal in Bangladesh (US\$10.8 million).

#### 3. DFI Support

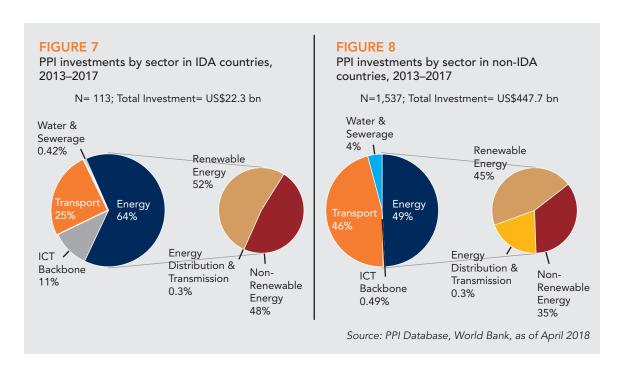
DFIs have played a critical role in bringing in private sector investments to infrastructure in IDA countries. During the 2013–2017 period, 42 percent of the total projects in IDA countries received some type of multilateral support, compared to only 13 percent in non-IDA countries (see figure 5). Similarly, 42 percent of the total projects in IDA countries received some type of bilateral support in contrast to only seven percent of all projects in non-IDA countries (see figure 6).



#### 4. Sectoral Trends

Accounting for almost two-thirds of the investments, energy sector projects have been the main driver of PPI investments in IDA countries, while the transport sector claimed a less important role in the market. In comparison, in non-IDA countries the split between energy and transport investments has been almost equal, although an increased share of transport investments in non-IDA countries is in large part caused by the US\$ 35.6 billion IGA airport project in Turkey in 2015 (see figures 7 and 8).

In IDA countries, ICT backbone projects garner a share of 11 percent of investment compared to 0.5 percent in non-IDA countries. In Senegal, the Senegal lease (affermage) water contract and the Kigali Bulk Water Supply Project (US\$60 million) were the only two water projects that took place during the five-year period.



Within the energy sector, almost all the investments in IDA countries took place in the electricity generation projects (represented as renewable and non-renewable energy in the pie charts). Among them, renewable energy investments garnered a 52 percent share, which is slightly less than that in non-IDA countries, where renewable energy projects accounted for the 56 percent share of the electricity generation investments. On the brighter side, the pace of growth of renewable energy projects has been much faster in IDA countries as it increased from 38 percent of total electricity generation projects in 2013 to 77 percent in 2016 (see table 6).

TABLE 6. PPI INVESTMENT IN RENEWABLE ENERGY PROJECTS, 2013-2017									
Year	2013	2014	2015	2016	2017				
IDA COUNTRIES									
No. of Renewable Energy Projects	3	13	5	10	19				
No. of Non-Renewable Energy Projects	5	9	3	3	8				
Share of Renewable Energy Projects (% of electricity generation projects in IDA countries)	38%	59%	63%	77%	70%				
Investments in Renewable Energy Projects (US\$ Mn)	326	2,985	481	515	2,994				
Share of Renewable Energy Investments (% of electricity generation investments in IDA countries)	22%	57%	28%	36%	71%				
Non- IDA Countries									
No. of Renewable Energy Projects	177	138	159	116	147				
Share of Renewable Energy Projects	83%	87%	90%	88%	91%				
Investments in Renewable Energy Projects (US\$ Bn)	22.3	17.3	19.4	20.3	20.1				
Share of Renewable Energy Investments	42%	37%	55%	47%	48%				

Source: PPI Database, World Bank, as of April 2018

<sup>9</sup> Refers to the share of electricity generation investments and not total energy investments which is 45 percent as depicted in figure 5

#### 5. Types of PPI Projects

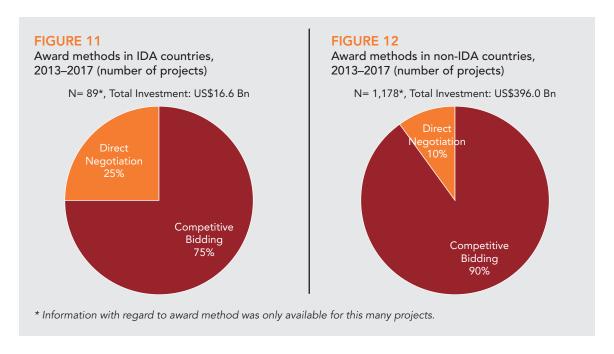
The percentage of greenfield projects in IDA countries has increased significantly from 2013 levels, reaching 88 percent in 2017 (see figure 10). In the last five years, the cumulative share at 79 percent was higher than in non-IDA countries at 71 percent (see figure 9). Increasing the proportion of greenfield projects in IDA countries could be explained by the need for new infrastructure projects to meet the critical infrastructure gap.



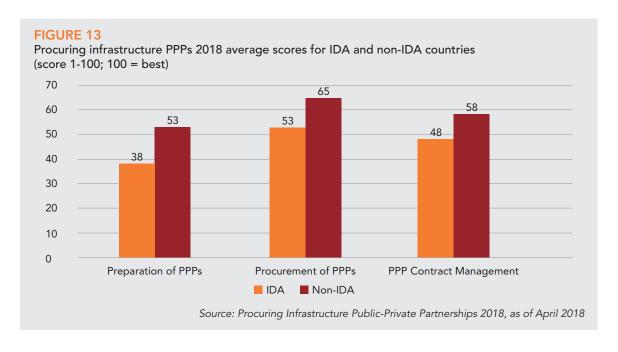
#### 6. Project Award Methods

Projects are usually awarded either through competitive bidding or direct negotiations. Competitive bidding is a method that invites bids from competing private consortia through open advertising of the scope, specifications, and terms and conditions of the proposed contract, as well as the criteria used for bid evaluation. The competitive bidding method also includes competitive negotiations and license schemes. Under direct negotiations, the contract is awarded on the basis of a direct agreement with a private consortium without going through the competitive bidding process.

A glance at the bidding award methods for PPI projects in IDA and non-IDA countries reveals that the percentage of projects awarded through direct negotiations (primarily in the energy sector) is much higher in IDA countries (25 percent) than in non-IDA countries (10 percent). See figures 11 and 12 below. The significant number of contracts awarded through direct negotiations highlights the need to improve governance, transparency, and competition in IDA countries.



## 7. Procuring Infrastructure PPPs in the IDA and non-IDA countries



The ability of governments to prepare, procure, and manage public-private partnership (PPP) projects is an important factor for a country to successfully attract private sector investments into infrastructure projects. A measure for this critical factor is provided in the World Bank's *Procuring Infrastructure PPPs* 

2018 report, which assesses the regulatory frameworks and recognizes good practices that govern PPP procurement across 135 economies. It contains measures of countries' frameworks for preparation<sup>10</sup>, procurement<sup>11</sup>, contract management<sup>12</sup>, and unsolicited proposal management<sup>13</sup> for PPPs on a scale of 1 to 100. Out of the 135 economies, 39 are IDA<sup>14</sup> countries, 53 are non-IDA<sup>15</sup> countries, two are blend<sup>16</sup> countries, and the rest are OECD countries and other emerging economies.

Overall, as demonstrated by the three key indicators in *Procuring Infrastructure PPPs 2018* (see figure 13), non-IDA countries have more comprehensive preparation, procurement, and contract management systems than their IDA counterparts. However, certain IDA countries scored higher for at least one of the key indicators than non-IDA countries' averages. In terms of preparation of PPPs, six IDA countries—Burkina Faso, Ghana, Honduras, Mali, Niger, and Uganda—scored above the average point for their non-IDA counterparts. For procurement of PPPs, 10 IDA countries<sup>17</sup> had better performance than the average for non-IDA countries. A different set of 10 IDA countries<sup>18</sup> achieved higher scores than the average for non-IDA countries in PPP contract management. This is because, while on an average, IDA countries performed below non-IDA countries, some IDA countries have passed important reforms to improve their PPP regulatory framework.

Of special note is Burkina Faso, which scores higher than non-IDA averages across the three key indicators and has attracted PPI investments of US\$45 million in one project in 2017. Burkina Faso has passed some important reforms in its PPP regulatory framework since 2014 including a PPP law and decree that sets the legal regime, as well as a decree regulating the creation and functions of the PPP commission. A decree in 2017 established the PPP program. This new regulatory framework includes many of the international recognized good practices including budget approval for PPPs by the central authority, evaluation of consistency between PPPs and public investment priorities, management of risk allocation, and conducting environmental impact assessments. Burkina Faso has also established an evaluation committee with functions of identifying potential project partners and establishing prequalification criteria and bidding details for procurement procedures.

<sup>10</sup> The Preparation of PPPs Indicator assesses procedures that are in place in a country to identify potential PPP projects, conduct preliminary analyses, and publicize documents announcing the start of PPP procurement. A total of 13 indicators are employed to measure countries' PPP preparation.

<sup>11</sup> The Procurement of PPPs Indicator assesses the quality of procedural guidelines adopted by countries to select private partners and to award PPP contracts. Individual countries' performances in this category are measured by 18 indicators.

<sup>12</sup> The PPP Contract Management Indicator assesses mechanisms included in PPP contracts to address future changes, settle disputes, renegotiate terms and conditions, and terminate contracts. 10 indicators are used to score the selected countries.

<sup>13</sup> The Unsolicited Proposal for PPs Indicator assesses a country's approach towards unsolicited proposals (USPs) and existence of fair and competitive bidding procedures. Six indicators constitute this measurement category and scores are only indicated for countries that regulate USPs. It is not represented in the figure as some countries were not scored.

<sup>14</sup> IDA countries included in the *Procuring Infrastructure PPPs 2018*: Afghanistan, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Chad, Congo, Dem. Rep., Côte d'Ivoire, Djibouti, Eritrea, Ethiopia, Ghana, Guinea, Haiti, Honduras, Kosovo, Kyrgyz Republic, Lao PDR, Madagascar, Malawi, Mali, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Rwanda, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Tajikistan, Tanzania, Togo, Tonga, Uganda, and Zambia

<sup>15</sup> Non-IDA countries included in the *Procuring Infrastructure PPPs 2018*: Albania, Algeria, Angola, Argentina, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, Croatia, Dominican Republic, Ecuador, Egypt, El Salvador, Gabon, Georgia, Guatemala, India, Indonesia, Iraq, Jamaica, Jordan, Kazakhstan, Lebanon, Macedonia, Malaysia, Mauritius, Mexico, Montenegro, Morocco, Panama, Paraguay, Peru, Philippines, Poland, Romania, Russian Federation, Serbia, South Africa, Sri Lanka, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Uruguay, and Vietnam.

<sup>16</sup> Blend countries included in the *Procuring Infrastructure PPPs 2018*: Cameroon, Congo, Rep., Kenya, Moldova, Mongolia, Nigeria, Pakistan, Papua New Guinea, Timor-Leste, and Zimbabwe

<sup>17 10</sup> countries: Bangladesh, Burkina Faso, Ethiopia, Kosovo, Nepal, Nicaragua, Sierra Leone, Somalia, Tanzania, and Tonga.

<sup>18 10</sup> countries: Burkina Faso, Cambodia, Djibouti, Honduras, Madagascar, Mali, Nepal, Nicaragua, Uganda, and Zambia.

#### 8. Conclusion

Although PPI investments in IDA countries are small relative to global PPI investment levels, these countries have been garnering increased shares in recent years, with 2017 being a remarkable year where IDA countries' share of total EMDE PPI investment stood at 8.5 percent, up from 4.3 percent in 2016. With three projects receiving government subsidies in 2017, this is the highest number of projects that received government subsidy in a year in the past five years. Usually, the share of projects receiving government subsidies in IDA countries is much lower than that in non-IDA countries, as governments in IDA countries have limited experience in structuring and supporting PPP transactions as compared to their non-IDA counterparts.

Multilateral and bilateral institutions have always played a significant role in attracting private investments to IDA countries. The proportion of IDA country projects that received multilateral support in the last five years was 42 percent as compared to only 13 percent of non-IDA country projects receiving multilateral support. Similarly, for bilateral support, the share was 42 percent for IDA country projects vis-à-vis a seven percent share for non-IDA country projects.

Development agencies are not just restricted to providing post-financial close support to projects but are also involved in project preparation, which instills confidence in the private sector to invest in IDA countries. However, a lot still remains to be done to improve the PPP legal and regulatory quality in IDA countries as described by the scoring from *Procuring Infrastructure PPPs 2018* (figure 13).

IFC provided transaction advisory services to three projects, including the Myingyan gas-fired power plant in Myanmar—the first project to be competitively tendered in the country; Bangweulu Solar PV Plant—Zambia's first scaling solar project; and Kigali Bulk Water Supply Plant in Rwanda—the first bulk surface water supply PPP project in Sub-Saharan Africa. A few projects in 2017 also benefitted from some institutions and funds allocated to cover financing project preparation costs (see table 7).

TABLE 7. IDA COUNTRY PROJECTS IN 2017 THAT RECEIVED FINANCING SUPPORT FROM DONOR AGENCIES FOR PROJECT PREPARATION RELATED ACTIVITIES									
Project	Country	Investment (US\$ mn.)	Institution Financing Project Preparation Related Activities						
Butama Hydroelectric plant	Uganda	19.3	United Nation's Seed Capital Assistance Facility (SCAF) provided funding for early stage development activities of the project.						
Kandahar Solar Plant	Afghanistan	19	United States Agency for International Development (USAID) provided support in project tendering as well as viability gap funding.						
Kayes Thermal Power Plant	Mali	136	PIDG's Technical Assistant Facility (TAF) provided US\$500,000 towards project development costs.						
Kigali Bulk Water Supply Plant	Rwanda	60	DevCo, the specialist PIDG-IFC PPP advisory facility, provided funding for transaction advisory.						
Musanze Hydropower Plant	Rwanda	17	U.S. Trade and Development Agency (USTDA) provided a grant for Technical Assistance for the development of the plant.						
Zina Solaire	Burkina Faso	45	Sustainable Energy Fund for Africa (SEFA) provided a US\$950,000 grant for transaction advisory work and structuring of PPA.						

## 9. Annex I: PPI Investments by IDA Country

TABLE 8. PPI INVE	STMENTS	AND NU	IMBER OF	PROJEC	TS BY IDA	COUNT	RY, 2013-2017		
Countries		Investments (US\$ millions)							
IDA	2013	2014	2015	2016	2017	Total	2013–2017		
Afghanistan	\$0	\$0	\$0	\$0	\$19	\$19	1		
Bangladesh	\$42	\$595	\$304	\$170	\$618	\$1,727	11		
Benin	\$0	\$0	\$0	\$0	\$0	\$0	0		
Bhutan*	\$0	\$0	\$0	\$0	\$0	\$0	0		
Burkina Faso	\$0	\$0	\$0	\$0	\$45	\$45	1		
Burundi	\$0	\$0	\$0	\$0	\$0	\$0	0		
Central African Republic	\$0	\$0	\$0	\$0	\$0	\$0	0		
Cambodia	\$0	\$0	\$0	\$0	\$1,013	\$1,013	2		
Chad	\$0	\$0	\$0	\$0	\$0	\$0	0		
Comoros	\$0	\$0	\$0	\$0	\$0	\$0	0		
Congo, Dem. Rep.	\$0	\$0	\$0	\$0	\$0	\$0	0		
Cote d'Ivoire*	\$361	\$273	\$0	\$0	\$0	\$633	2		
Djibouti*	\$0	\$0	\$0	\$6	\$0	\$6	1		
Eritrea	\$0	\$0	\$0	\$0	\$0	\$0	0		
Ethiopia	\$0	\$122	\$0	\$0	\$0	\$122	1		
Gambia, The	\$0	\$0	\$0	\$0	\$0	\$0	0		
Ghana*	\$453	\$912	\$0	\$2,252	\$550	\$4,168	7		
Guinea-Bissau	\$0	\$0	\$0	\$0	\$0	\$0	0		
Guyana*	\$0	\$0	\$0	\$0	\$0	\$0	0		
Haiti	\$0	\$58	\$0	\$0	\$0	\$58	1		
Honduras*	\$1,510	\$593	\$524	\$349	\$260	\$3,237	24		
Kiribati	\$0	\$0	\$0	\$0	\$0	\$0	0		
Kosovo*	\$65	\$0	\$0	\$0	\$0	\$65	1		
Kyrgyz Republic	\$0	\$41	\$0	\$0	\$0	\$41	1		
Lao PDR*	\$0	\$2,050	\$0	\$0	\$1,850	\$3,900	5		
Lesotho*	\$0	\$0	\$0	\$0	\$0	\$0	0		
Liberia	\$26	\$0	\$0	\$0	\$0	\$26	1		
Madagascar	\$0	\$0	\$0	\$0	\$245	\$245	1		
Malawi	\$0	\$0	\$0	\$0	\$0	\$0	0		
Maldives	\$0	\$0	\$0	\$0	\$0	\$0	0		
Mali	\$0	\$0	\$0	\$0	\$136	\$136	1		

TABLE 8. PPI INV	ESTMENT	S AND N	UMBER C	F PROJEC	CTS BY ID	A COUNTR	Y, 2013-2017
Countries		I	nvestments	(US\$ millio	ons)		# of projects
IDA	2013	2014	2015	2016	2017	Total	2013–2017
Marshall Islands	\$0	\$0	\$0	\$0	\$0	\$0	0
Mauritania	\$0	\$0	\$0	\$0	\$0	\$0	0
Micronesia, Fed. Sts.	\$0	\$0	\$0	\$0	\$0	\$0	0
Mozambique	\$184	\$203	\$0	\$0	\$357	\$744	5
Myanmar*	\$175	\$0	\$0	\$0	\$1,934	\$2,109	4
Nepal	\$0	\$150	\$354	\$26	\$258	\$788	9
Nicaragua*	\$0	\$77	\$324	\$0	\$0	\$401	2
Niger	\$0	\$0	\$0	\$0	\$0	\$0	0
Rwanda	\$0	\$24	\$0	\$0	\$422	\$446	4
Samoa	\$0	\$0	\$0	\$0	\$29	\$29	1
São Tomé and Príncipe	\$0	\$0	\$0	\$0	\$0	\$0	0
Senegal	\$136	\$342	\$324	\$76	\$114	\$991	11
Sierra Leone	\$0	\$0	\$0	\$0	\$0	\$0	0
Solomon Islands	\$0	\$0	\$0	\$0	\$0	\$0	0
Somalia	\$10	\$0	\$0	\$6	\$0	\$16	2
South Sudan	\$0	\$0	\$0	\$0	\$0	\$0	0
Sudan	\$0	\$0	\$0	\$0	\$0	\$0	0
Syrian Arab Republic	\$0	\$0	\$279	\$0	\$0	\$279	2
Tajikistan	\$0	\$0	\$0	\$0	\$0	\$0	0
Tanzania	\$0	\$0	\$0	\$6	\$0	\$6	1
Togo	\$0	\$0	\$0	\$0	\$0	\$0	0
Tonga	\$0	\$0	\$0	\$0	\$0	\$0	0
Tuvalu	\$0	\$0	\$0	\$0	\$0	\$0	0
Uganda	\$0	\$0	\$46	\$64	\$19	\$129	7
Vanuatu	\$9	\$0	\$0	\$0	\$0	\$9	1
Yemen, Rep.	\$0	\$0	\$0	\$6	\$0	\$6	1
Zambia*	\$0	\$0	\$840	\$0	\$59	\$899	2
Grand Total	\$2,971	\$5,438	\$2,997	\$2,959	\$7,927	\$22,292	113

Note: (\*) IDA countries above are only eligible for IDA support on blend (harder) credit terms and do not have access to IBRD financing. These are countries with GNI per capita above the operation cutoff (\$1,165) for two consecutive years.

Source: PPI Database as of April 2018

# 10. Annex II: Projects that reached financial close in 2017 in IDA countries

Country	Project Name	Sponsors	Sector	РРІ Туре	Investment (US\$ mn.)	Project Banks (US\$ mn.)
Afghanistan	Kandahar Solar Plant	Dynasty Oil & Gas (100%)	Energy	Greenfield	\$19	Not applicable
Bangladesh	Sirajganj 4	SembCorp	Energy	Greenfield	\$412	IFC (\$103)
	Combined Cycle Power Plant	Industries (71%)				Clifford Capital (\$103)
		North West Power Genera- tion Company (29%)				Commonwealth Development Corporation (CDC) (\$103)
	Moheshkhali	Excelerate	Transport	Greenfield	\$179.5	IFC (\$32.8)
	Floating LNG project	Energy (80%)				FMO (\$23.22)
		IFC (20%)				KfW (\$23.22)
						CDC Group (\$23.22)
						JICA (\$23.22)
	Munshiganj HFO Plant	Doreen Group (100%)	Energy	Greenfield	\$26	Commerzbank (\$13)
						Commercial Bank AKA Bank (\$13)
Burkina Faso	Zina Solaire	Windiga Energy (95%)	Energy	Greenfield	\$45.3	IFC (\$14.3)
		Government of Burkina Faso (5%)				FC-Canada Climate Change Program (\$11.9)
Cambodia	Siem Reap An- gkor Interna- tional Airport	Yunnan Invest- ment Holdings (100%)	Transport	Greenfield	\$1000	Not Available
	Svay Rieng PV Solar Farm	Sunseap Group (100%)	Energy	Greenfield	\$12.5	ADB (\$9.2)
Ghana	Tema LNG Import Terminal	Quantum Power Limited (100%)	Transport	Greenfield	\$550	Not Available
	Karadeniz Pow- ership Osman Khan	Karadeniz Energy Group (100%)	Energy	Greenfield		Not Available

Country	Project Name	Sponsors	Sector	РРІ Туре	Investment (US\$ mn.)	Project Banks (US\$ mn.)
Honduras	Pacific Solar Energy	Upower Group (100%)	Energy	Greenfield	\$123.6	FMO (\$44.3) DEG (\$48.4)
	Chinchayote Wind Farm	Grupo Terra (100%)	Energy	Greenfield	\$110	G&T Continental Bank (\$77)
	San Marcos Wind Expansion	Grupo Terra (100%)	Energy	Brownfield	\$26	FMO (\$10.5) Agence Francaise de Developpement (AFD) (\$4.5) DEG (\$4.5)
Lao PDR	Nam Theun I	Phonesack Group (60%) Electricity Generating Company (EGCO) (25%) EDL-Generation Public Company (EDL-Gen) (15%)	Energy	Greenfield	\$1300	Bangkok Bank (\$374), Thai Exim Bank (\$93.3) Siam Commercial Bank (\$374) Tisco Bank (\$93.2)
	Don Sahong Hydropower	Mega First Corp. (80%) Électricité du Laos (EDL) (20%)	Energy	Greenfield	\$500	Not Available
	Xe Namnoy 2 & Xe Katam 1 Hydro Power Plants	B. Grimm Group (100%)	Energy	Greenfield	\$50	Bangkok Bank (\$25) Thai Exim Bank (\$25)
Madagascar	Ivato and Fascene Airports	Meridiam (45%) Aeroports de Paris (35%) Bouygues (20%)	Transport	Brownfield	\$245.1	IFC (\$50.36), Agence Francaise de Development (AFD) (\$27.98) Development Bank of Southern Africa (DBSA) (\$11.19), EAIF (\$27.98), OPEC Fund for International Development (\$27.98)

Country	Project Name	Sponsors	Sector	РРІ Туре	Investment (US\$ mn.)	Project Banks (US\$ mn.)
	Kayes Thermal Power Plant	African Infrastructure Investment Managers (AIIM) (44%) Redox Power Solutions (31%) Investment Fund for Developing	Energy	Greenfield	\$136.33	IDB (\$22.38)  OPEC Fund for International Development (\$16.79)  EAIF (\$9.96)  West African Development Bank (\$22.39)  Islamic Corpora-
		Countries (IFU) (17%) Burmeister & Wain Scan- danavian Con- tractor A/S (BWSC) (8%)				tion for the Development of the Private Sector (ICD) (\$22.39)
Mozambique	Central Termica de Ressano Garcia	Electricidade de Moçam- bique (EDM) (51%) Sasol (49%)	Energy	Greenfield	\$273	IFC (\$55) FMO (\$21) EAIF (\$21) Agence Francaise de Developpement (AFD) (\$46) Barclays (\$46)
	Mocuba Solar PV Plant	Scatec (52.5%) Electricidade de Moçam- bique (EDM) (25%) Norfund (22.5%)	Energy	Greenfield	\$84	IFC (\$21) Climate Invest- ment Funds (\$21) Private Infra- structure Devel- opment Group (PIDG) (\$21)
Myanmar	Viettel 4G Network	Viettel Tele- com (49%) Star High and 11 domestic communica- tions-related companies (51%)	ІСТ	Greenfield	\$1500	Not Available

Country	Project Name	Sponsors	Sector	РРІ Туре	Investment (US\$ mn.)	Project Banks (US\$ mn.)
Myanmar	Myingyan Gas- Fired Power Plant	SembCorp Industries (80%) MMID Utilities (20%)	Energy	Greenfield	\$315	IFC (\$37.1) Asian Infrastructure Investment Bank (\$20) ADB (\$41.8) Clifford Capital (\$62.7) DBS Bank (\$41.7) DZ Bank (\$5) OCBC Bank (\$44.7)
	HyalRoute Fiber Optic Cable Network	HyalRoute Communica- tion Group (100%)	ICT	Greenfield	\$118.6	Bank of China (\$100)
Nepal	Kabeli A Hydro- electric Plant	Butwal Power Com- pany (51%) Gurans Energy Limited (44%) Asia Pacific Power-Tech Co. Ltd (5%)	Energy	Greenfield	\$106.6	IFC (\$38.6) IDA (\$40)
	Super Nyadi Hydropower	Ngadi Group Power (100%)	Energy	Greenfield	\$64.5	NMB Bank (NMB) (\$8.08) Prabhu Bank (\$8.08) Mega Bank (\$8.08) Century Bank (\$8.08) NCC Bank (\$8.08) Kumari Bank (\$8.08)
	Nyadi Hydropower Plant	Butwal Power Company (97%) Lamjung Electricity Development Company (LEDCO) (3%)	Energy	Greenfield	\$56.5	Everest Bank (\$6.9) Nabil Bank (\$6.9) Global IME Bank (\$6.9) Himalayan Bank (\$6.9) Sunrise Bank (\$6.9) Hydroelectricity Investment and Development Company (\$6.9)

Country	Project Name	Sponsors	Sector	РРІ Туре	Investment (US\$ mn.)	Project Banks (US\$ mn.)
Nepal	Upper Solu Khola Hydro- power Plant	Beni Hydro- power Project (100%)	Energy	Greenfield	\$30.1	Total loan: \$ 20.3  NMB Bank (\$Not Available),  Nepal Bangla- desh Bank (\$Not Available),  Vibor Society Development Bank (\$Not Available),  Siddhartha Bank (\$Not Available)
Rwanda	HQ Peat-fired Power Plant	Hakan Mining and Electricity Generation Inc. (51%) Quantum Power Limited (49%)	Energy	Greenfield	\$345	African Export Import Bank (Afreximbank) (\$26.25) Eastern and Southern African Trade and Development Bank (\$26.25) Development Bank of Rwanda (\$26.25) EXIM Bank of India (\$26.25) Finnish Fund for Industrial Corporation (Finnfund) (\$10) Africa Finance Corporation (\$110)
	Kigali Bulk Water Supply Plant	Metito (100%)	Water and Sewerage	Greenfield	\$60	AFDB (\$19) EAIF (\$21.6)
	Musanze Hydropower Plant	DC Hydro Power (100%)	Energy	Greenfield	\$17	KfW (\$Not Available) Denmark's Frontier Energy (\$Not Available) responsAbil- ity Renewable Energy Holding (rAREH) (\$Not Available)

Country	Project Name	Sponsors	Sector	PPI Type	Investment (US\$ mn.)	Project Banks (US\$ mn.)
Samoa	Tui - Samoa submarine cable	Digicel (16.66%) BlueSky (16.66%) CSL (16.66%) Unit Trust of Samoa (UTOS) (16.66%) Samoa Life Assurance Corporation (16.66%) Samoa National Provident Fund (16.66%)	ICT	Greenfield	\$28.7	Not Applicable
Senegal	Cap des Biches Oil-Fired Power Plant II	ContourGlobal (100%)	Energy	Brownfield	\$51	OPIC (\$37.7)
	Tobene Oil- Fired Power Plant	Matelec (90%) International Finance Cor- poration (10%)	Energy	Brownfield	\$37	EAIF (\$7.5) IFC (\$8.5) BOAD (\$7.5), FMO (\$4.3)
	EDS EXIMAG Solar Plant	Small international investors (100%)	Energy	Greenfield	\$25.9	FMO (\$25.9)
Uganda	Butama Hydro- electric plant	Lereko Invest- ments (87%) WK Power (WK) and Fieldstone Africa Investment Re- sources (FAIR) (13%)	Energy	Greenfield	\$19.3	OPIC (\$13.65)
Zambia	Bangweulu Solar PV Plant	Neoen (55%) First Solar (25%) Industrial Development Corporation (20%)	Energy	Greenfield	\$59	IFC (\$26.6) OPIC (\$13.3)

## About the Private Participation in Infrastructure Projects Database

The Private Participation in Infrastructure Database is a product of the World Bank Group's Infrastructure, PPPs & Guarantees team. 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 offers information on more than 8,000 infrastructure projects, dating from 1984 to 2017, and provides more than 50 fields per project record. These include 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.

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