

HALF YEAR (H1) UPDATE 2023

Private Participation in Infrastructure (PPI)



Acknowledgement & Disclaimer

Acknowledgement & Disclaimer This report was prepared by a team comprising Deblina Saha (Task Team Leader), Seong Ho Hong (Infrastructure Analyst), Apala Bhattacharya (Consultant), Tianqin Qu (Consultant) with design inputs by Theresia Mmasi. The team is very grateful for the support and guidance received from Imad N. Fakhoury (Global Director of IPG Global Practice) and Aijaž Ahmad (Acting Manager of PPP Group, IPG Global Practice). Photos by Unsplash.com. This report describes private participation in infrastructure (PPI) as indicated in the Private Participation in Infrastructure Database. 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.

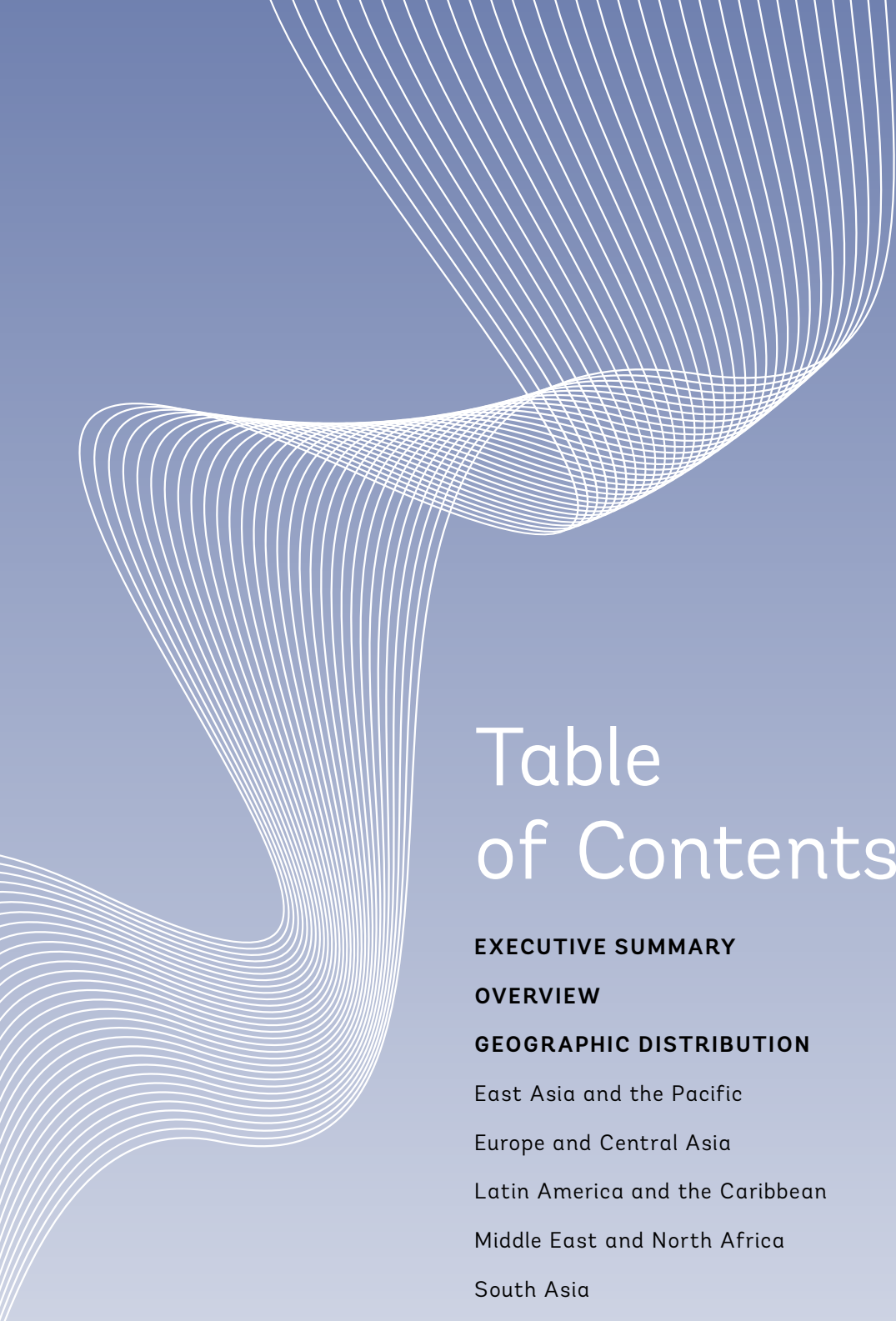


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Executive Summary

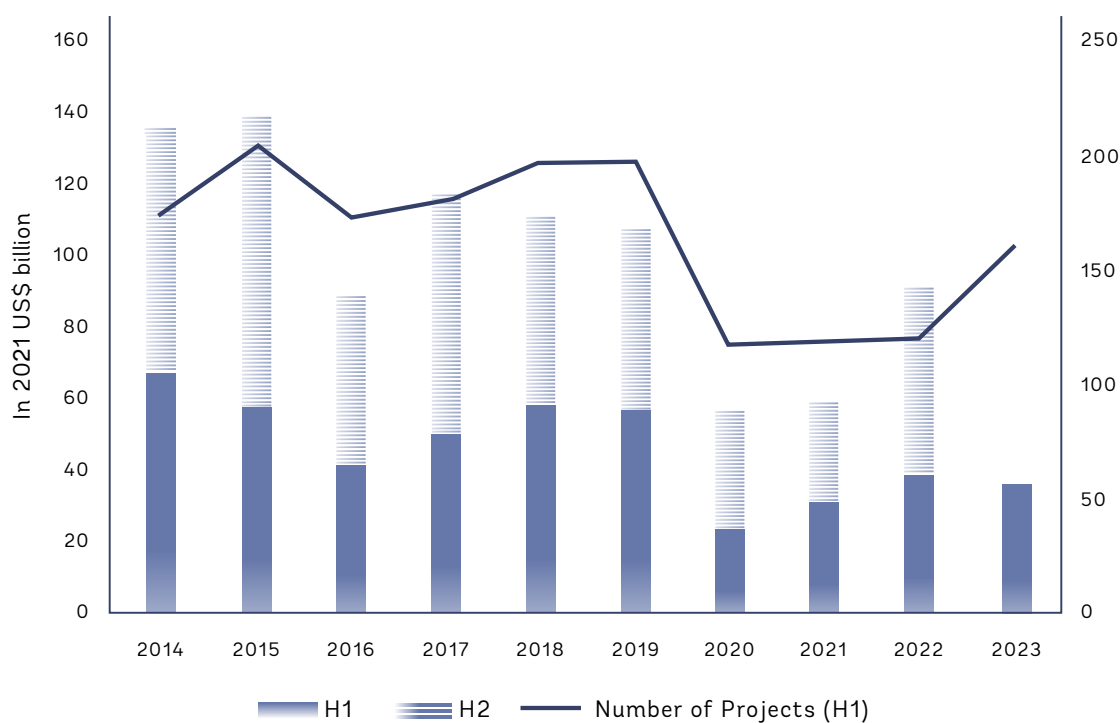
- The first half of 2023 painted a multifaceted landscape for Private Participation in Infrastructure (PPI). Investment commitments declined by 7% compared to the same period in 2022, totaling \$36.4 billion in 44 countries.
- The first half of 2023 displayed a mixed picture for PPI investment commitments across different regions. While all regions except Latin America and the Caribbean (LAC) and South Asia Region (SAR) witnessed substantial growth, SAR in particular suffered a significant drop in PPI investments.
- Investment commitments in International Development Association (IDA) countries for the first half of 2023 stood at US\$2.5 billion, spread across 26 projects in 17 countries. This is marginally less than the US\$2.6 billion committed across 14 projects in 12 countries for the same period in 2022.
- In the first half of 2023, the energy sector took the lead for the first time in recent years, attracting US\$25.5 billion across 95 projects. This significant shift accounted for 69 percent of global PPI investments, hinting of a potential change moving forward in the investment landscape within the infrastructure sector.
- Of the 79 new electricity generation projects, 78 (about 99%) utilized renewable energy sources. Additionally, 99% of the newly added 13.0 GW capacity originated from renewable energy sources.
- In the first half of 2023, 60 projects totaling US\$6.8 billion received one or more forms of Development and Export Finance Institutions (DEFI) support, ranging from direct or syndicated loans, equity, and grants, to guarantees, risk insurance, and transaction advisory services. These 60 projects accounted for 37 percent of all PPI projects in H1 2023 by number. By investment value, however, projects with DEFI support accounted for only 19 percent of total investment commitments.



Overview

The first half of 2023 painted a multifaceted landscape for Private Participation in Infrastructure (PPI). Investment commitments declined by 7% compared to the same period in 2022, totaling \$36.4 billion in 44 countries. However, the number of projects surged, reaching an impressive milestone of 161. Since the onset of COVID-19, the global infrastructure market has observed the H1 project count hovering around 120. Before the pandemic, the count consistently exceeded 150. The recent surge to 161 projects in the first half of the year marks an important milestone, signifying a resurgence in PPI based on project quantity (See Figure 1). The increase in the number of projects and the decrease in total investment have resulted in a reduction in the average size of each project. The average project size was US\$236.6 million in H1 2023, which compares to US\$348.1 million in H1 2022. Notably, South Asia saw a significant drop in PPI, but this was offset by a marked rise in Middle East and North Africa as well as Europe and Central Asia.

Figure 1. Investment Commitments in Infrastructure Projects with Private Participation in Low and Mid-Income Countries, 2014–H1 2023



In terms of absolute figures, China, Philippines, Brazil, India, and Egypt led the way in attracting the most significant PPI investments in the first half of 2023. Combined, these five countries pulled in a substantial share of global PPI investment, albeit at a slightly lower proportion than the previous year. Specifically, they attracted US\$25.5 billion, accounting for 70% of global PPI investment in H1 2023. This marks a shift from H1 2022, when China, India, Brazil, Indonesia, and Vietnam had collectively attracted US\$32.0 billion, capturing 74% of global PPI investment.

In the first half of 2023, the countries showing the highest levels of PPI investment as a percentage of their national GDP were notably different from the previous year. Leading the list was Lao PDR, with 6.1% of its GDP committed to PPI investments. It was followed by Bosnia and Herzegovina with 2.0%, Uzbekistan with 1.1%, the Philippines with 1.0%, and Albania also with 1.0% of their respective GDPs.

Top Five Countries	PPI Investments (US\$ million)	Percentage
China	14,989.26	41%
Philippines	4,033.42	11%
Brazil	3,171.46	9%
India	1,820.25	5%
Egypt, Arab Rep.	1,569.40	4%

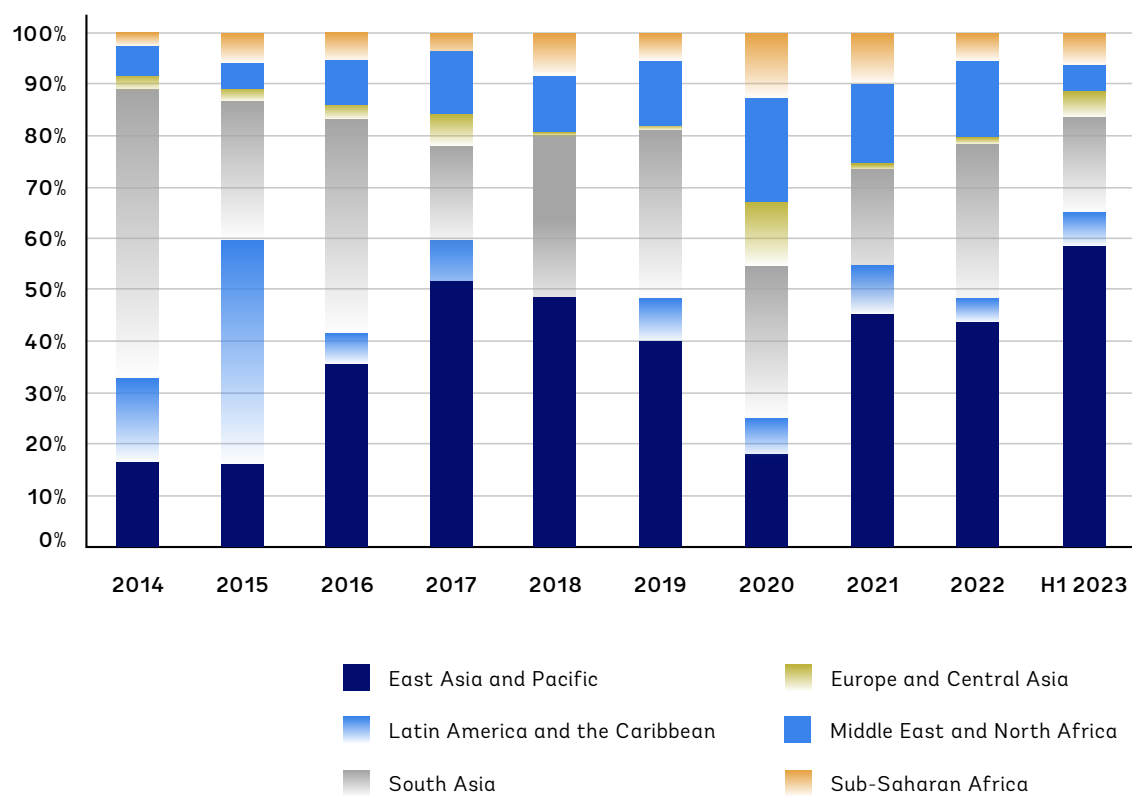


Geographical Distribution



The first half of 2023 painted a mixed picture for PPI investment commitments across different regions. While all regions except Latin America and the Caribbean (LAC) and South Asia (SAR) witnessed substantial growth, SAR in particular suffered a significant drop in PPI investments. This decline was largely driven by the absence of mega-projects in India.

Figure 2. Regional Share of Investment Commitments in Infrastructure Projects with Private Participation in Low- and Mid-Income Countries, 2014–H1 2023



However, the shortfall in SAR and LAC was counterbalanced by PPI surges in other regions, especially Europe and Central Asia (ECA) and the Middle East and North Africa (MENA). In stark contrast to their lowest H1 PPI investments in the past five years recorded in 2022, both ECA and MENA have rebounded in 2023.



East Asia and Pacific

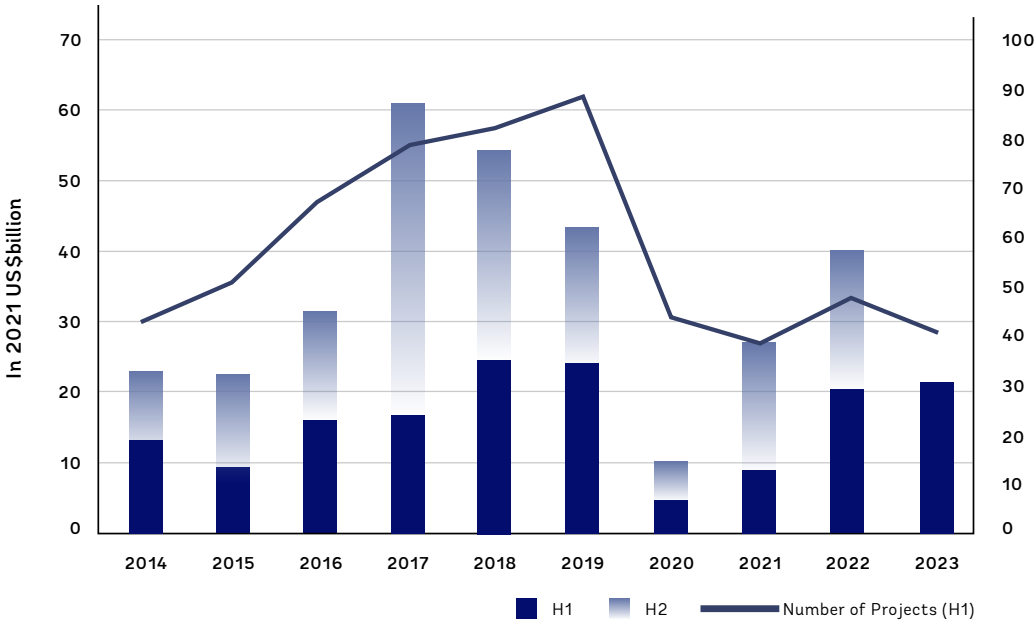
In the first half of 2023, EAP secured US\$21.4 billion in investments across 41 projects. This reflects a 4.7% increase from H1 2022 and stands at 29% above the previous five-year H1 average of US \$16.6 billion. Consistently, EAP received the highest level of PPI investment, a trend also seen in H1 2022. In fact, the region accounted for over half of the total PPI investment in H1 2023. This leading position in PPI can be attributed to substantial investments primarily driven by China (US\$15.0 billion) and the Association of Southeast Asian Nations (ASEAN). Together, the Philippines, Indonesia, Thailand, Malaysia, Vietnam, Lao PDR, and Cambodia committed to PPI investments amounting to US\$6.4 billion in the first half of 2023.

US\$21.4
billion in investments
across 41 projects

↑ 4.7%
from H12022

The Philippines recorded the second-highest level of PPI investments in the EAP region and across all low- and mid-income nations, totaling US\$4.0 billion over 10 projects. A significant portion of this lofty investment commitment came from the Manila Metro Rail Transit Line 7.

Figure 3. Investment Commitments in Infrastructure Projects with Private Participation in Low- and Mid-Income Countries in EAP, 2014–H1 2023



Europe and Central Asia

US\$2.3
billion in investments
across 21 projects

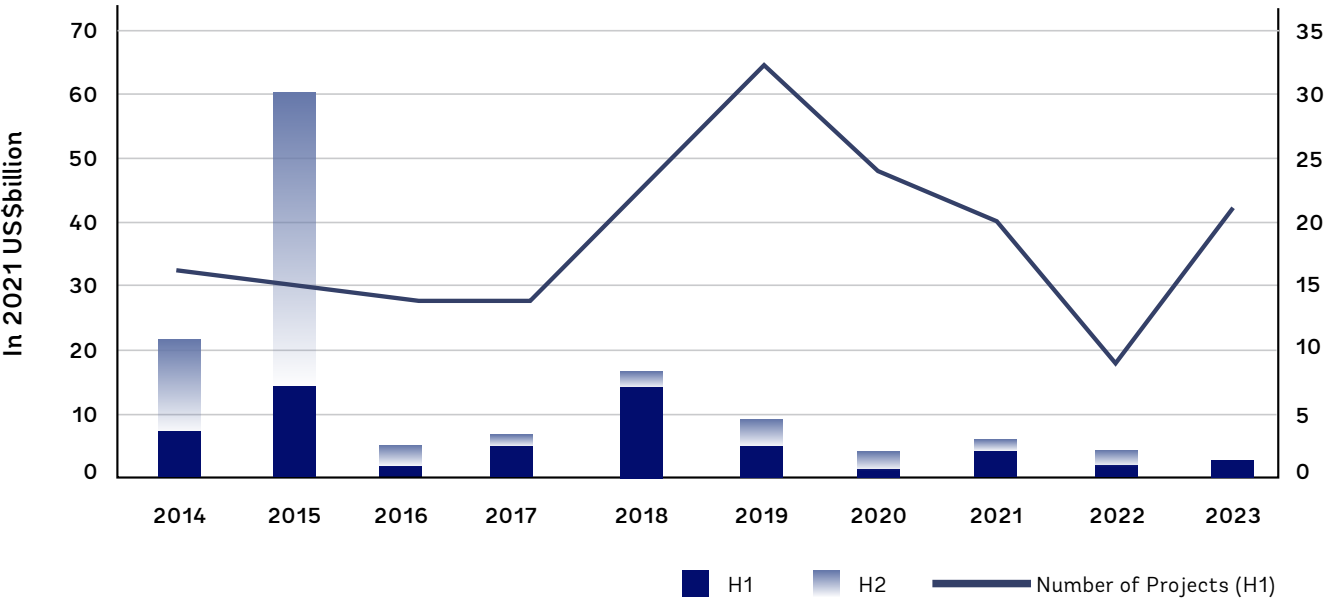
↑ 27%
from H12022



ECA reported US\$ 2.3 billion of investment commitments across 21 projects in the first half of 2023. This figure is 27 percent higher than the total investments in the same period of 2022, marking a significant recovery. Uzbekistan led the way, suggesting a rebound from the downturn experienced in the first half of 2022 and approaching the levels recorded in the corresponding period of 2021 when reported investments totaled US\$4.2 billion.

Uzbekistan substantially boosted the total PPI investments of the region in the first half of 2023, accounting for US\$896 million across four projects. Since its inaugural PPI project in 2019, Uzbekistan has reported PPI investments for five consecutive years, largely attributed to its robust renewable program. Other countries in the region with PPI investment commitments in the first half of 2023 include Albania, Bosnia and Herzegovina, Bulgaria, Kazakhstan, Serbia, and Turkiye.

Figure 4. Investment Commitments in Infrastructure Projects with Private Participation in Low- and Mid-Income Countries in ECA, 2014–H1 2023



Latin America and Caribbean



US\$6.8

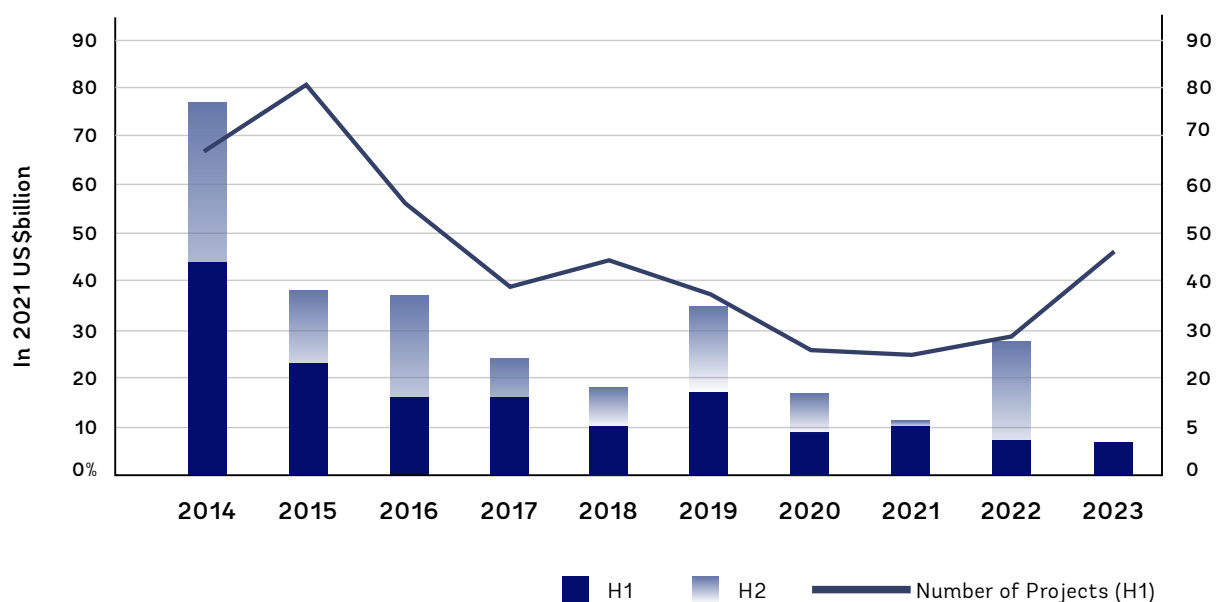
billion in investments
across 46 projects

↓ **6%**
from H1 2022

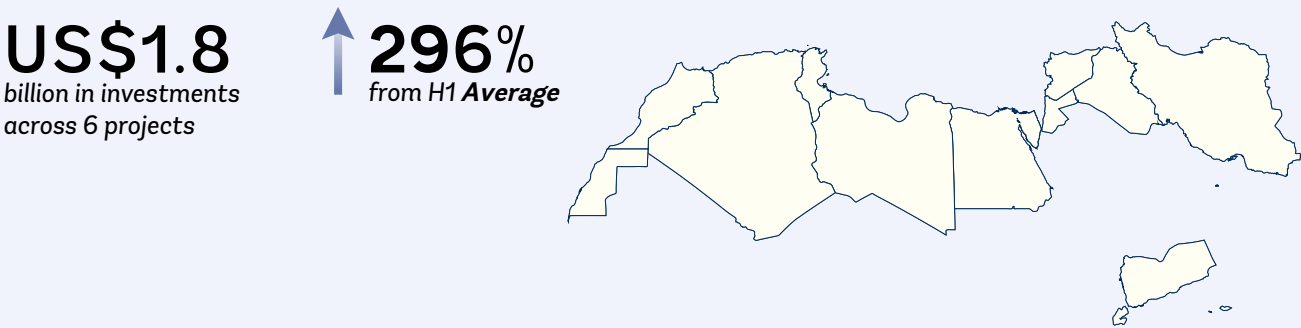
In the first half of 2023, the LAC region secured PPI investment commitments of US\$6.8 billion, spread across 46 projects. Leading countries in this commitment were Brazil (US\$3.2 billion), Peru (US\$1.3 billion), and Colombia (US\$740 million). However, when compared to H1 2022, this figure represents a 6 percent decrease and a substantial 36 percent drop from the past five-year H1 average (spanning 2018-2022). A key factor explaining this downturn is the absence of any reported projects from Mexico combined with a diminishing number of PPI projects in Brazil. Peru has posted a notable increase in PPI investments commitments in the first half of 2023 at US\$1.3 billion across four projects.

Other countries with PPI investment commitments in the region include Argentina, Dominican Republic, Ecuador, Honduras, and Paraguay. Suriname reported its first PPI project during this period. Partially funded by a loan from the Inter-American Development Bank (IADB), this project involves the expansion and modernization of the Kuldipsingh Port, a privately-owned cargo port in Paramaribo area,

Figure 5. Investment Commitments in Infrastructure Projects with Private Participation in Low- and Mid-Income Countries in LAC, 2014–H1 2023

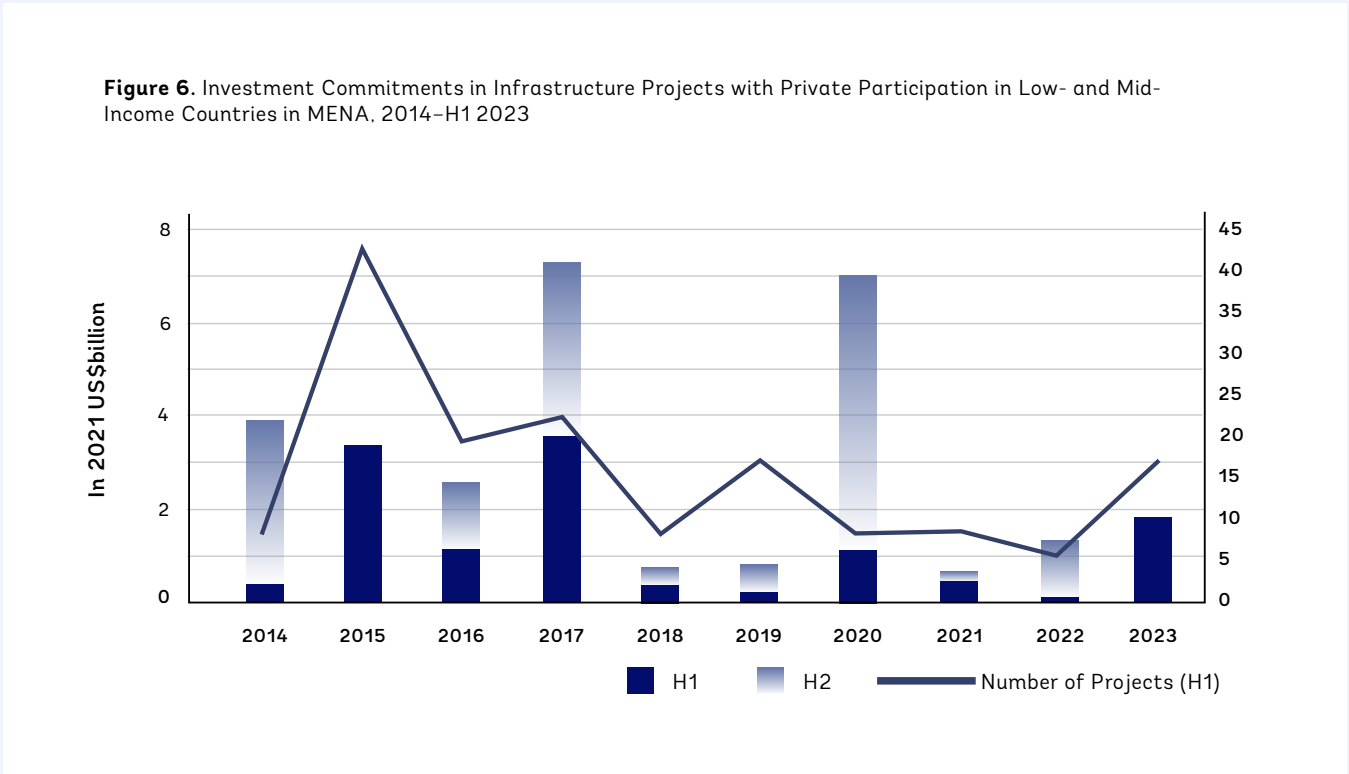


Middle East and North Africa



In the first half of 2023, PPI investments in the MENA region amounted to US\$1.8 billion, distributed across 6 projects. This figure represents a substantial increase from the H1 2022 level of US\$105 million and is 296% above the preceding H1 five-year average of US\$459 million, mirroring the pre-COVID-19 average levels. Egypt stood out, accounting for 86% of the regional investments with 4 projects, maintaining a proportion consistent with its 2022 annual PPI investment. The Ain Sokhna Port and Port of Alexandria development program, backed by China’s Hutchison Port Holdings, was particularly notable, boasting a US\$700 million investment. The remaining projects in Egypt primarily focused on renewable power generation.

Additionally, Tunisia witnessed a rising trend in PPI investment, securing the second highest rank in the region for the period. Meanwhile, Djibouti received an IDA investment commitment from SEACOM, in collaboration with IFC, aimed at expanding its broadband cable network.





South Asia

In H1 2023, the SAR secured US\$1.8 billion in investments across 15 projects. This marks a steep 74 percent drop from H1 2022 and represents the lowest first-half-of-the-year private investment since 2005. The current investment commitments in the region account for a mere 30 percent of the five-year H1 average at US\$6.1 billion.

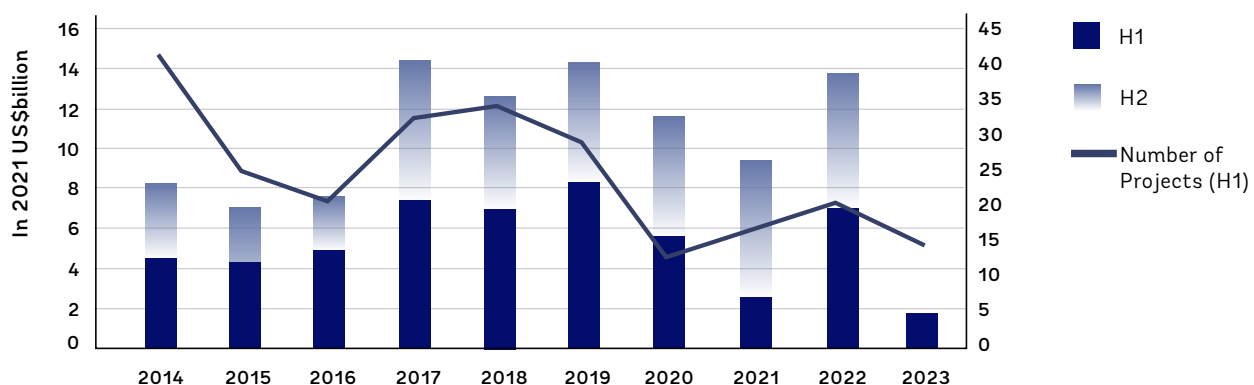
This decline can be attributed in part to the fact that India was the sole country in the region to post investment commitments. Historically consistent contributors, such as Sri Lanka and Pakistan, currently grapple with challenging macroeconomic situations. Additionally, Bangladesh, once a PPI stalwart, is contending with rising inflation and foreign exchange volatility.

US\$1.8
billion in investments
across 15 projects

↓ **74%**
from H1 2022

However, even India, a traditionally dominant player in Global PPI, reported commitments amounting to just 33 percent of its H1 2022 investments. On a brighter note, the number of projects that achieved financial closure remained steady at 15. Yet, the average investment size for H1 2023 stood at US\$121 million, a decline from the five-year average of US\$265 million, underscoring the absence of mega-projects this year.

Figure 7. Investment Commitments in Infrastructure Projects with Private Participation in Low- and Mid-Income Countries in SAR, 2014–H1 2023



Sub-Saharan Africa



In the first half of 2023, SSA witnessed a pronounced uptick in private investment commitments, totaling US\$2.3 billion spread across 32 projects. This denotes a 7 percent increase from H1 2022 which saw US\$2.0 billion invested in 14 projects. A standout trend is the growing number of countries within the SSA region reporting PPI investments. During this period, 16 countries attracted PPI investments, an increase from the 11 countries in H1 2022 and considerably above the five-year average of eight countries.

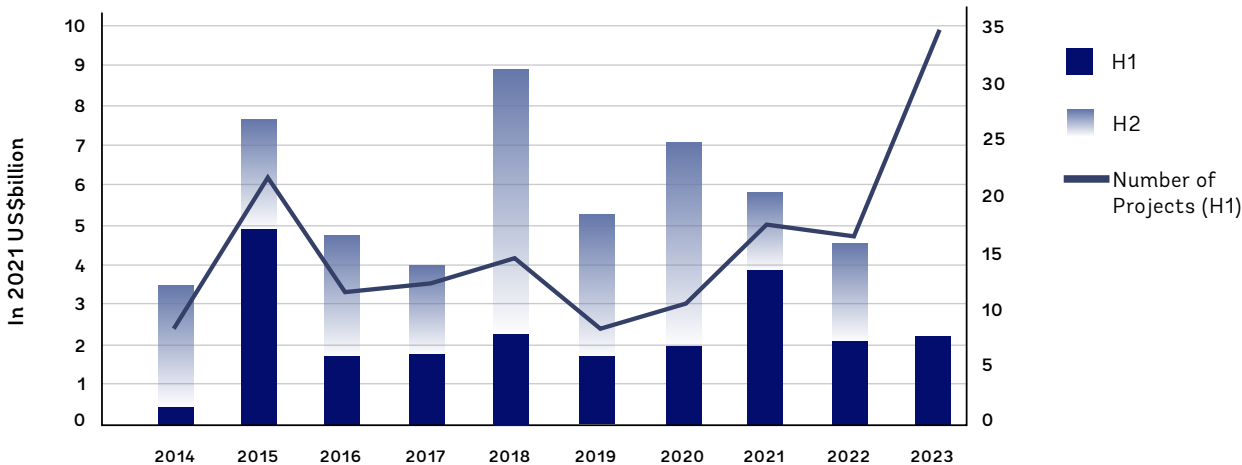
US\$2.3
billion in investments
across 32 projects

7%
from H1 2022

South Africa, in particular, emerged as a key player in PPI investment commitments. Historically, the nation's power sector has faced various challenges, necessitating careful planning, infrastructure upgrades, and strategic partnerships. Such challenges, common in many rapidly developing economies, influenced the PPI investment landscape.

Nevertheless, H1 2023 offers promising indicators for the energy sector. South Africa alone has attracted US\$918 million in PPI investments for its energy segment, suggesting a robust resurgence. Other SSA nations that reported PPI investment commitments include Ghana, Kenya, Madagascar, Mozambique, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, and Zambia.

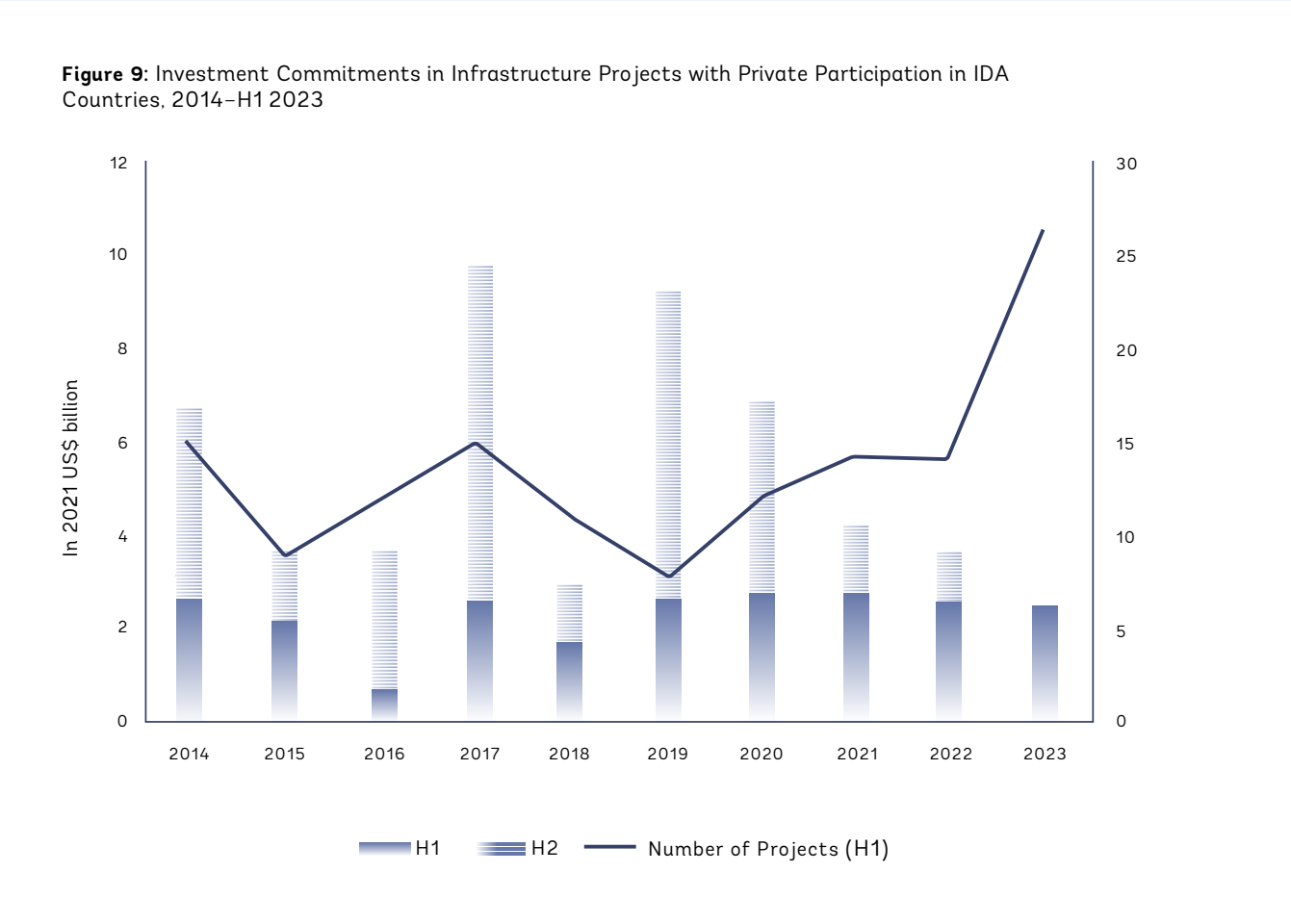
Figure 8. Investment Commitments in Infrastructure Projects with Private Participation in Low- and Mid-Income Countries in SSA, 2014–H1 2023





IDA Countries

Investment commitments in International Development Association (IDA) countries for the first half of 2023 stood at US\$2.5 billion, spread across 26 projects in 17 countries. This is marginally less than the US\$2.6 billion committed across 14 projects in 12 countries for the same period in 2022. When compared to the past five-year H1 average of US\$2.5 billion for 14 projects, the first half of 2023 maintains the level of investment but significantly expands its reach across more projects and countries.



Development and Export Finance Institutions (DEFI) played an increasingly crucial role this year in IDA countries, with 22 of the 26 projects receiving some form of DEFI support, mostly from multilateral institutions.

Lao PDR led the IDA countries in H1 2023 with the largest investment commitment, amounting to US\$959 million, primarily owing to a significant wind farm project. This marks a shift from previous leaders such as Senegal and Nepal. The number of IDA countries reporting PPI projects in 2023 is the highest it has been in the past decade, signaling a broader geographical distribution and growing interest in infrastructure investment across IDA countries.

**Investment Commitments and Number
of Infrastructure Projects with Private Participation
in IDA Countries, H1 2023**

COUNTRY	TOTAL INVESTMENT (US\$ MILLIONS)	NUMBER OF PROJECTS
Cambodia	2	1
Congo, Dem. Rep.	282	3
Cote d'Ivoire	84	2
Djibouti	30	1
Ethiopia	282	2
Ghana	137	1
Honduras	280	1
Lao PDR	959	1
Madagascar	18	1
Mozambique	54	2
Rwanda	30	1
Senegal	208	2
Sierra Leone	1	1
Somalia	6	1
Tanzania	54	3
Uganda	54	2
Zambia	8	1
GRAND TOTAL	2,488	26

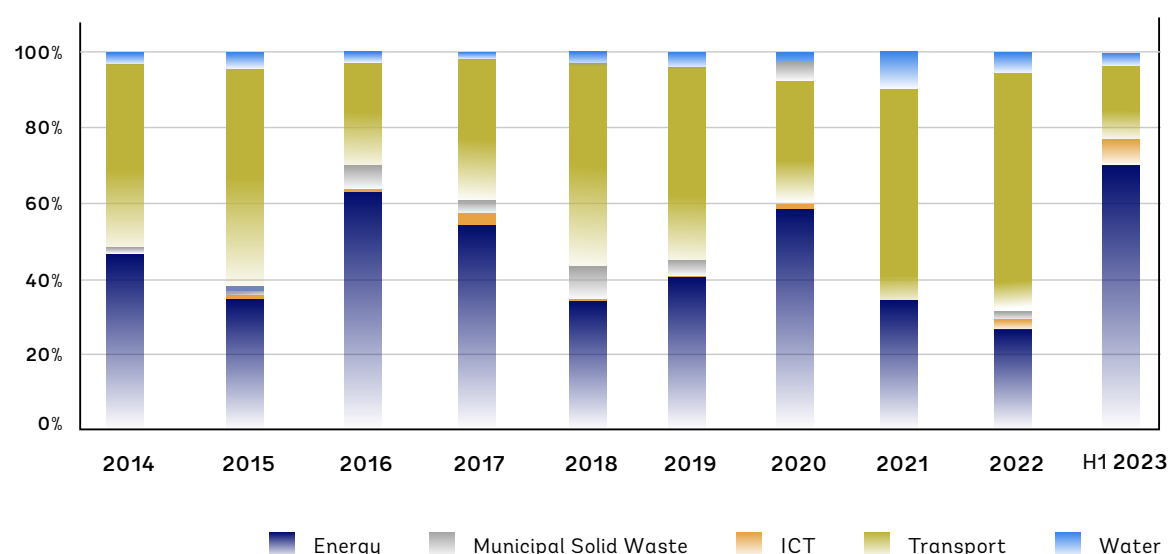


Sector Trends



In the first half of 2023, the energy sector took the lead for the first time in recent years, attracting US\$25.5 billion across 95 projects. This significant shift accounted for 69 percent of global PPI investments, underlining a dramatic change in the investment landscape within the infrastructure sector.

Figure 10: Share of Sectoral Investment Commitments in Infrastructure Projects with Private Participation in Low- and Mid-Income Countries, 2014–H1 2023



In contrast, the transport sector, which has typically been the front-runner in PPI investments, saw a marked decline, capturing just US\$7 billion across 20 projects, or 19 percent of the total investment commitments for H1 2023. The water and sanitation sector secured US\$1.5 billion across 13 projects, contributing about 4 percent of overall investments. The information and communication technology (ICT) sector brought in US\$2.3 billion across 24 projects, making up approximately 6 percent of the total. Lastly, the municipal solid waste (MSW) sector drew a more modest US\$113 million across nine projects, making up less than 1 percent of global PPI investments for this period.

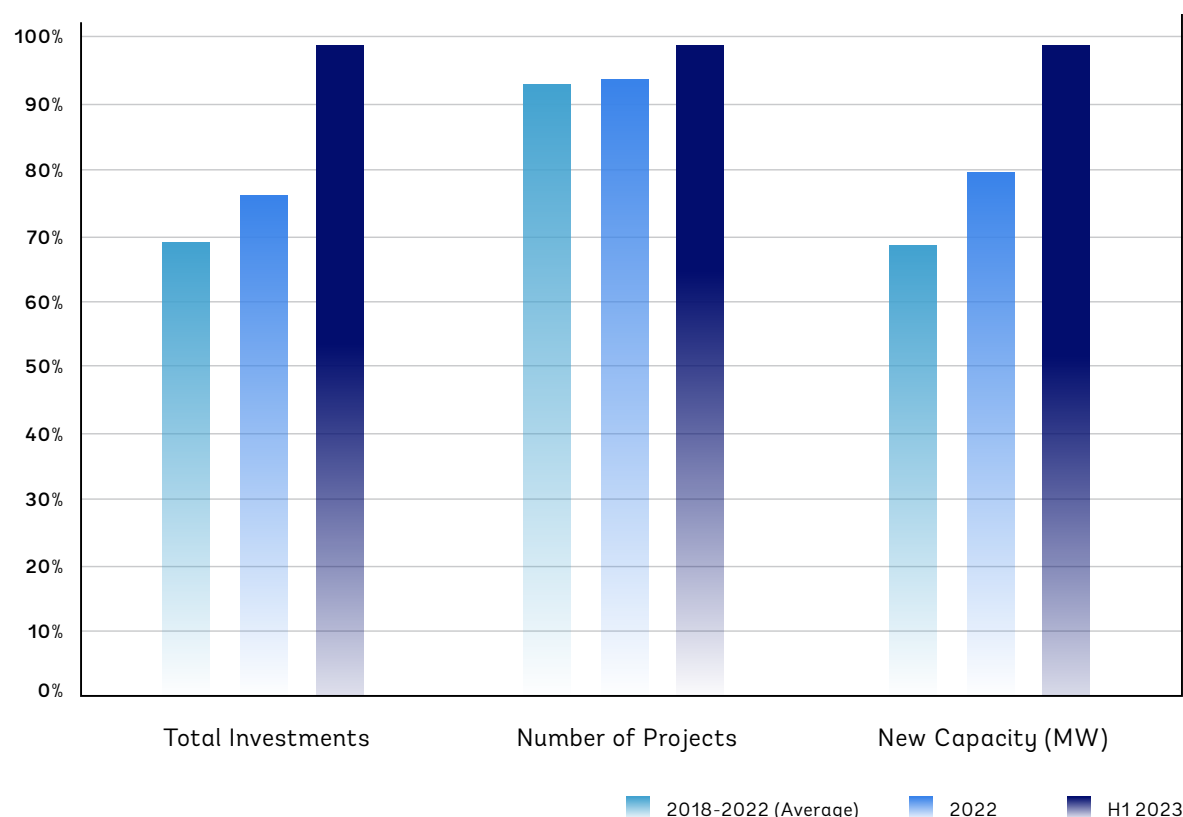
Energy

With US\$25.5 billion invested across 95 projects, the energy sector saw a 146% increase in the first half of 2023 compared to the same period in 2022, which had investments totaling US\$10.4 billion. This marked the highest level of investment in the sector in the last five years.

The reasons behind this surge include China's investment in large hydropower plants, South Africa's recovery in the power sector, and the Philippines' strong renewable energy program. The electricity subsector dominated, accounting for 97% of total energy investment commitments. These investments are projected to add 13.0 GW of power generation capacity in low- and middle-income countries.

Of the 79 new electricity generation projects, 78 (about 99%) utilized renewable energy sources. At the country level, Senegal was the only exception; all other power projects that reached financial closure in the first half of 2023 were based on renewable sources. In terms of investment volume, nearly 99% of the new electricity generation investments were in renewables. Additionally, 99% of the newly added 13.0 GW capacity originated from renewable energy sources.

Figure 11. Share of Electricity Generation Projects in Low- and Middle-Income Countries that Use Renewable Resources, by PPI Investment Volume, Number of Projects, New Capacity, Five-Year Average (2018-2022), 2022, and H1 2023



Within the renewable sector, solar energy was the most popular energy source in terms of the number of projects in the first half of 2023, followed by onshore wind. When it comes to investment volume, hydro power projects took the lead, as their capital costs are much higher.

Transport

Transport sector investment commitments totaled US\$7.0 billion across 20 projects in the first half of 2023, representing a 72 percent decrease from the first half of 2022 and a 66 percent decrease from the five-year H1 average. This downturn marked the second-lowest H1 investment level in the past decade; the lowest was in 2020, when the COVID-19 pandemic severely disrupted many investment commitments in low- and middle-income countries.

The largest drop in investment is attributable to the absence of airport projects; there were no airport projects reported in H1 2023. Additionally, India's slowdown in PPI has notably impacted the low level of investment in the road sector, given that India has traditionally been a leader in road sector PPI.

On a positive note, both railways and ports saw significant increases in investments. Furthermore, electric vehicle charging stations are gaining momentum. For example, Bulgaria successfully closed the Eldrive charging station network.

Information and Communication Technology Backbone (ICT)

In the ICT sector, a total of US\$2.3 billion was invested across 12 projects in the first half of 2023. This compares to US\$1.8 billion across four projects in H1 2022. A significant contribution to this growth came from the SEACOM broadband cable network expansion. IFC provided significant support to this project with a US\$207 million long-term loan. This partnership aims to close the digital gap in Africa and is expected to aid the digital transformation of about 24,000 regional enterprises by 2027.

Water and Sanitation

Investments in the water and sanitation sector in the first half of 2023 totaled US\$1.5 billion across 13 projects, marking an 11 percent increase from the same period in 2022. Indonesia emerged as a major destination for water and sanitation PPI investment, attracting US\$990 million through two water supply projects. In contrast, Brazil and China, which are typically the main destinations for water PPI investments, reported a combined total of only US\$270 million in H1 2023.

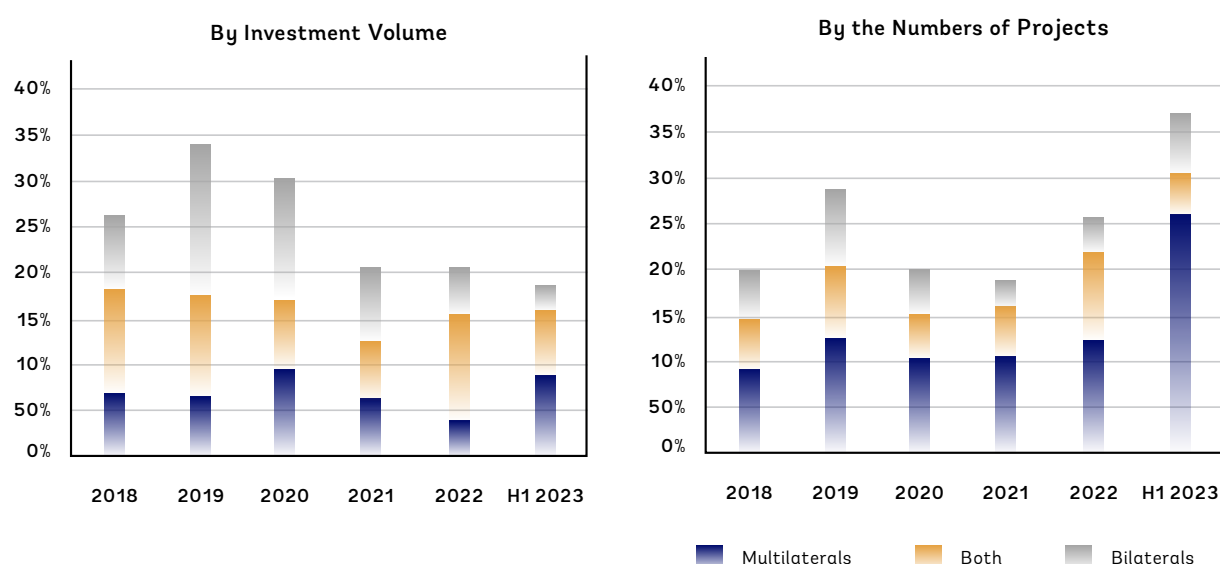


Development and Export Finance Institutions

In the first half of 2023, 60 projects totaling US\$6.8 received one or more forms of

DEFI support, ranging from direct or syndicated loans, equity, and grants, to guarantees, risk insurance, and transaction advisory services. These 60 projects accounted for 37 percent of all PPI projects in H1 2023 by number. By investment value, however, projects with DEFI support accounted for 19 percent of total investment commitments.

Figure 12. Share of Infrastructure Commitments with Private Participation in Low- and Mid-Income Countries that Received Support from Multilateral/Bilateral DEFI, 2018 – H1 2023



DEFIs provided direct debt support of US\$4.3 billion in H1 2023. Of this, 33 percent or US\$ 1.4 billion in direct loans was offered by bilateral institutions to 19 projects. Multilateral institutions contributed US\$2.8 billion in direct loans to 38 projects and offered additional support forms like equity, grants, guarantees, risk insurance, and transaction advisory services to 13 projects. There were three guarantees given to projects by the World Bank Group in H1 2023, enhancing the financial security needed by private sector investors.

Appendix PPI Investments by Country (H1 2023)

COUNTRY	TOTAL INVESTMENT (US\$ MILLIONS)	NUMBER OF PROJECTS
Albania	187	2
Angola	24	1
Argentina	600	3
Bosnia and Herzegovina	486	1
Brazil	3,171	21
Bulgaria	386	10
Cambodia	2	1
China	14,989	18
Colombia	740	4
Congo, Dem. Rep.	282	3
Cote d'Ivoire	84	2
Djibouti	30	1
Dominican Republic	463	10
Ecuador	150	1
Egypt, Arab Rep.	1,569	4
Ethiopia	282	2
Ghana	137	1
Honduras	280	1
India	1,820	15
Indonesia	1,222	5
Kazakhstan	20	1
Kenya	30	1
Lao PDR	959	1
Madagascar	18	1
Malaysia	31	2
Mozambique	54	2
Paraguay	135	1
Peru	1,257	4
Philippines	4,033	10
Rwanda	30	1
Senegal	208	2
Serbia	169	1
Sierra Leone	1	1
Somalia	6	1

South Africa	948	8
Suriname	15	1
Tanzania	54	3
Thailand	90	2
Tunisia	221	1
Turkiye	196	2
Uganda	54	2
Uzbekistan	896	4
Vietnam	95	2
Zambia	8	1



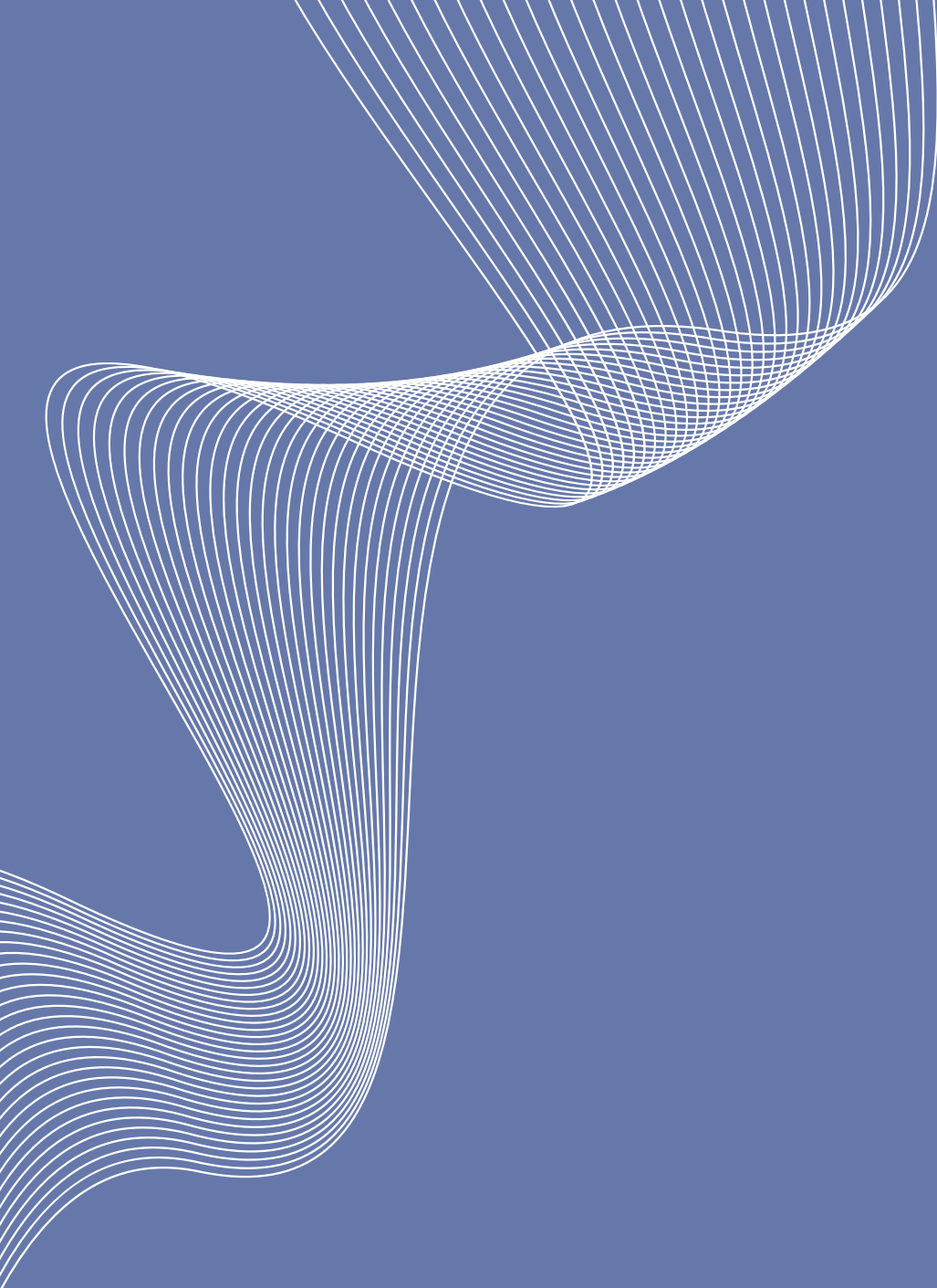
About the Private Participation in Infrastructure Projects Database

The Private Participation in Infrastructure Database is a product of the World Bank Group's Infrastructure Finance, PPPs and Guarantees Global Practice. 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 destinations of investment flows, and information on the main investors. The site currently provides information on more than 10,000 infrastructure projects dating from 1984 to 2023. It contains over 50 fields per project. For more information, please visit: ppi.worldbank.org



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The World Bank Group plays a key role in the global effort to end extreme poverty and boost shared prosperity. It consists of five institutions: The World Bank, including the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA); the International Finance Corporation (IFC); the Multilateral Investment Guarantee Agency (MIGA); and the International Centre for Settlement of Investment Disputes (ICSID). Working together in more than 100 countries, these institutions provide financing, advice, and other solutions that enable countries to address the most urgent challenges of development. For more information, please visit: www.worldbank.org



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