

Key Points

- Substantial increases in development institutions' assistance for public–private partnerships (PPPs) from the 2010s created an enabling environment to mobilize private funds, especially in developing Asian countries with relatively higher incomes.
- Success in implementing PPPs is still limited to a few developing Asian countries and sectors.
- Rather than waiting for business opportunities to arise, development institutions are promoting transaction advisory services to developing countries to create their own bankable PPP projects.
- Other possible finance mechanisms to fill the demand of infrastructure development include utilizing spillover tax revenues, since PPPs have not always worked even in countries with advanced PPPs.
- To increase the share of PPPs in the projects supported by development institutions using transaction advisory services, we recommend (i) developing trust from all stakeholders, especially from the recipient countries, through close communication; and (ii) utilizing their concessional loans effectively for PPP projects and raising awareness of the benefits of PPPs so that developing countries are willing to share project risk.

Public–Private Partnerships in Developing Asian Countries: Practical Suggestions for Future Development Assistance

Kei Endo; Research Fellow, JICA Ogata Sadako Research Institute for Peace and Development, Japan

KE Seetha Ram, Senior Consulting Specialist for Capacity Building and Training Projects, ADBI, and Visiting Professor, University of Tokyo

Introduction

Public–private partnerships (PPPs), especially in the context of infrastructure development, have gained in popularity over the past decades and are now largely accepted both in developed and developing countries. PPPs are broadly defined as “cooperation between public-private actors in which they jointly develop products and services and share risks, costs and resources which are connected with these products and services” (Van Ham and Koppenjan 2001). However, scholars and practitioners define PPPs differently, with Hodge and Greve (2007) indicating, for example, that there are numerous notions and several “families” of PPPs (see Box 1 for details). Often adopted by development institutions, such as the World Bank and the Asian Development Bank (ADB), as well as developing countries, the narrow definition of PPPs examined in this brief is as follows: PPPs are projects with long-term infrastructure contracts “bundling” the components of delivery to efficiently

Box 1: “Families” of Public–Private Partnerships

According to Hodge and Greve (2007: 547), scholars have identified at least five “families” of public–private partnerships:

1. Institutional cooperation for joint production and risk sharing—an example of this institutional emphasis is the Netherlands Port Authority
2. Long-term infrastructure contracts that emphasize the tight specification of outputs in long-term legal contracts, as exemplified by the United Kingdom
3. Public policy networks in which loose stakeholder relationships are emphasized
4. Civil society and community development in which partnership symbolism is adopted for cultural change, as in Hungary and Europe
5. Urban renewal and downtown economic development—in the United States, for example, a portfolio of local economic development and urban renewal measures are pursued

Development institutions, such as the World Bank and the Asian Development Bank, as well as developing country governments, usually use the term “public–private partnership” in line with the second meaning.



Box 2: Types of Public–Private Partnership

Public–private partnerships (PPPs) are categorized into contract types according to the roles of the public and private parties in delivering infrastructure projects, as shown in the table below. Design–build–finance–operate (DBFO), build–transfer–operate (BTO), and build–operate–transfer (BOT) are normally regarded as PPPs. Some scholars (e.g., Trebilcock and Rosenstock [2015]; Engel, Ronald, and Galetovic [2014]) regard build–own–operate (BOO) projects in which the asset remains with the private proponent at the end of the contract period as privatization (not PPPs), while other scholars (e.g., Yescombe [2007]) see BOO as a form of PPP.

Private Participation						
Weak ← → Strong						
Public–Private Partnerships						
Contract Type	Public Sector Procurement	Franchise (<i>Affermage</i>)	Design–Build–Finance–Operate (DBFO)	Build–Transfer–Operate (BTO)	Build–Operate–Transfer (BOT)	Build–Own–Operate (BOO)
Construction	Public sector	Public sector	Private sector	Private sector	Private sector	Private sector
Operation	Public sector	Public sector	Private sector	Private sector	Private sector	Private sector
Ownership	Public sector	Public sector	Public sector	Private sector during construction, then public sector	Private sector during contract, then public sector	Private sector
Who pays?	Public sector	Users	Public sector or users	Public sector or users	Public sector or users	Public sector or users
Who is paid?	N/A	Private sector	Private sector	Private sector	Private sector	Private sector

Note: DBFO is also known as design–construct–manage–finance (DCMF) or design–build–finance–maintain (DBFM). BTO is also known as build–transfer–lease (BTL), build–lease–operate–transfer (BLOT), or build–lease–transfer (BLT). BOT is also known as build–own–operate–transfer (BOOT).

Source: Prepared using Yescombe (2007: 12).

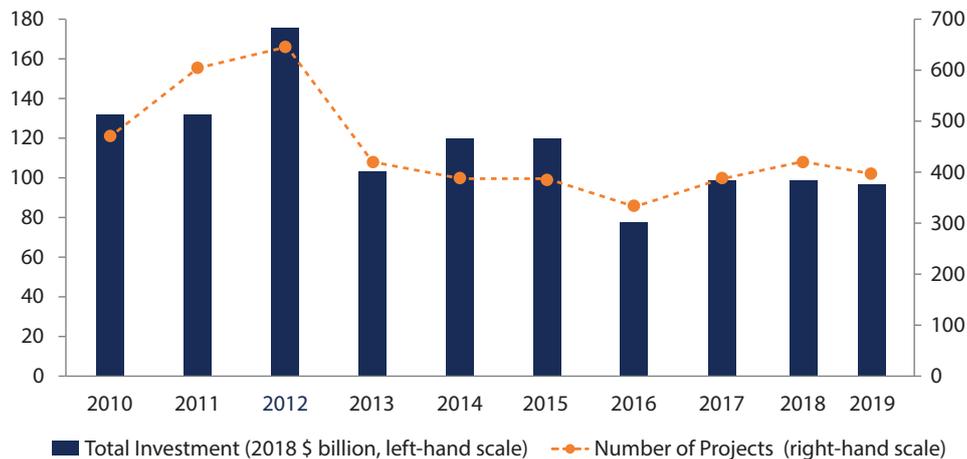
manage and assign risks between the public and the private sector (OECD 2008; Trebilcock and Rosenstock 2015). PPPs in line with this definition usually take the form of a concession-type contract with variations in the roles of the public and private partners, such as design–build–finance–operate (DBFO), build–transfer–operate (BTO), and build–operate–transfer (BOT) (Bayliss and Van Waeyenberge 2018; Yescombe 2007) (see Box 2 for details of types of PPPs).

PPPs have become mainstream for infrastructure development and are sometimes regarded as a “knight on a white horse” rather than just a “language game” (see Teisman and Klijn [2002] and Hodge and Greve [2007] for details) because of their expected benefits: on-time and within-budget project delivery, innovative and high-quality services using ideas from the private sector, reduction of coordination cost through a bundling effect, and compensating the financing gap in infrastructure development by mobilizing private funds. Enthusiasm for PPPs is evident not only in developed countries but

also in developing countries. The World Bank’s Private Participation in Infrastructure (PPI) Project Database shows that there have been more than 300 infrastructure projects with private participation per year in developing countries in the 2010s (Figure 1). Total investment in 2019 was \$96.7 billion across 409 projects. PPP growth in the early 1990s was led by Latin America, followed by a boom in South Asia, East Asia, and the Pacific from the 2000s; more recently, both Latin America and Asia are regarded as hot spots of PPPs in developing countries. The PPP boom in these regions was not spontaneous but advocated and created by development institutions (Bayliss and Van Waeyenberge 2018). In response to developing countries’ enthusiasm for PPPs, development institutions have provided support through a range of different initiatives and programs.

Such support provided by development institutions and its impact on PPP implementation in developing countries require further analysis. Against this background, this brief discusses past and current

Figure 1: Investment Commitments in Infrastructure Projects with Private Participation in Developing Countries, 2010–2019



Source: World Bank (2020: 4).

development institution assistance and its impact, and provides practical suggestions on future approaches that development institutions should follow to enhance PPP implementation in developing countries. This brief focuses on Asia, given the widespread interest in PPPs and the recent active development institution assistance in the region.

Implementation of Public–Private Partnerships in Developing Asian Countries

Developing Asian countries using PPPs can be categorized into three groups based on the number of realized projects (Table 1). The first group of “PPP mature countries” comprises the People’s Republic of China (PRC) and India. According to ADB (2017), the PRC and India have 1,052 projects (\$139 billion) and 861 projects (\$314 billion), respectively, that reached financial close between 1990 and 2016. These countries can be regarded as countries where the application of PPP has “taken off.” The second group comprises

“intermediate PPP application countries,” such as Indonesia, the Philippines, Thailand, and Viet Nam. For example, the Philippines has 119 PPP projects that financially closed (\$57 billion) between 1990 and 2016, with the performance similar in the other countries (ADB 2017). The third group comprises “PPP less-developed countries,” such as Cambodia and Myanmar, with only a small number of realized projects. This categorization indicates that developing countries in Asia with relatively higher incomes, with the exception of India, tend to succeed in implementing PPPs, which is consistent with the worldwide trend. The majority of PPP projects has taken place in relatively higher-income developing countries with larger markets (demand), strong rule of law, political stability, and a stable macroeconomic environment (Trebilcock and Rosenstock 2015; Hammami, Ruhashyankiko, and Yehoue 2006).

While it may seem that PPPs in countries of the second group also have already taken off when considering the number of financially closed PPP projects in the triple digits, in reality these countries are still in a developing stage of trying to improve PPP-related legislation, regulation, and institutions in order to promote the large deployment

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of PPPs. The less mature level of the second group of countries is especially noticeable when excluding the energy sector and the information and communication technology (ICT) sector, which are often regarded as belonging to the private sector rather than being PPPs due to their profitable nature (Engel, Ronald, and Galetovic 2014). For example, Thailand had only 16 transportation and 15 water PPP projects between 1990 and 2016, with the profile similar in the other countries (Figure 2) (ADB 2017). In addition, many transportation projects (mostly toll road projects) in these countries are undertaken by state-owned enterprises, without utilizing “visible” private funds for quick project realization (Endo, Gianoli, and Edelenbos 2020). The water sector in Asia also heavily relies on partially privatized state-owned enterprises to realize projects to overcome the low profitability of the projects (Jensen 2017). This raises the question of whether PPPs in the second group of countries really work or if we are just involved in a “language game.”

Development Institution Assistance for Public–Private Partnerships: Previous and Current Trends

Assistance from development institutions for privatization and PPPs has a long history dating to the early 1980s. According to Bayliss and Van Waeyenberge (2018), development institutions advocated privatization

by emphasizing the potential for efficiency gains derived from increased private sector involvement at the earlier stage (in the 1980s and 1990s) but failed to bring about the expected transitions. Assistance for PPPs substantially increased from the 2010s following the global financial crisis when global interest in PPPs, including in developing countries, increased (Hodge, Greve, and Biygautane 2018).

Development institutions’ assistance in the 2010s was strongly driven by their willingness to make use of the existing global savings glut through quantitative easing of infrastructure investment, which by nature has typically higher yields (Bayliss and Van Waeyenberge 2018). Development institutions have provided assistance both to developing countries and the private sector. They have supported developing country governments with diagnosis and recommendations regarding the preferable environment for PPPs to mobilize private funds, such as through the ADB PPP Monitor, the Organisation for Economic Co-operation and Development Policy Framework for Investment (PFI), and the World Bank Doing Business Indicator. Based on the recommendations drawn, development institutions have focused on creating a suitable environment for PPPs. According to Miyamoto and Chiofalo (2015), multilateral development institutions contributed significant official development finance to improve the PPP environment (e.g., infrastructure and finance sector development, public governance, and investment openness), reaching

Table 1: Public–Private Partnership Projects That Have Reached Financial Close in Selected Developing Asian Countries, 1990–2016

Country	Number of Projects	Total Amount of Projects (\$ billion)
<i>Group I: PPP mature countries</i>		
India	861	314
People’s Republic of China	1,052	139
<i>Group II: Intermediate PPP application countries</i>		
Indonesia	120	18.6
Philippines	119	56.9
Thailand	150	38.8
Viet Nam	84	16.2
<i>Group III: PPP less-developed countries</i>		
Cambodia	25	3.1
Myanmar	6	1.5

PPP = public–private partnership.

Note: Data for Cambodia and Myanmar are based on the World Bank’s Private Participation in Infrastructure (PPI) database, since ADB (2017) does not include the information.

Source: Prepared using ADB (2017) and World Bank’s PPI database.

Table 2: Index of the Enabling Environment for Public–Private Partnerships in Infrastructure in Selected Developing Asian Countries, 2019

	Overall	Regulation	Institutions	Maturity	Investment and Business Climate	Financing
Bangladesh	66	65	90	71	56	47
India	75	77	94	58	81	73
Indonesia	59	78	53	42	72	58
Pakistan	61	47	88	73	55	37
People’s Republic of China	78	70	94	80	78	67
Philippines	75	85	94	58	81	68
Thailand	80	87	97	72	76	72
Viet Nam	64	61	84	67	59	50

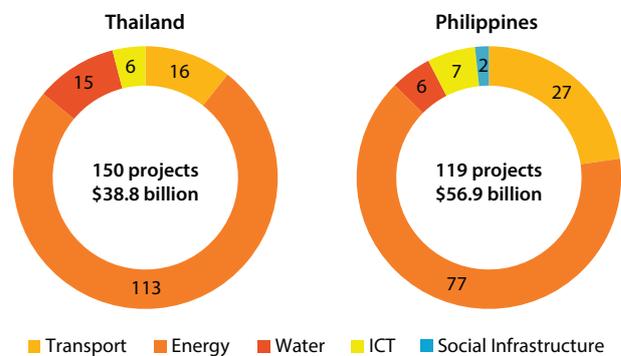
Source: Prepared using Economist Intelligence Unit website (<https://infrascope.eiu.com/>).

approximately \$34 billion in 2013. In relation to the private sector, development institutions have established mechanisms that directly finance private companies involved in PPP projects, as well as dedicated funds such as the Global Infrastructure Facility (GIF), led by the World Bank with about \$12 trillion in assets under management for infrastructure projects. As a result of continuous assistance, the PPP environment in developing Asian countries, especially those with relatively higher incomes, is now generally well developed. For example, Thailand scores 80 (“mature” status) on the index measuring “the enabling environment for public–private partnerships in infrastructure,” according to the Economist Intelligence Unit in 2019 (Table 2). Other major developing Asian countries also received high scores that were equivalent to those of developed Asian countries such as the Republic of Korea and Japan in 2014, with 79 and 76, respectively (Economist Intelligence Unit 2015). Evaluations from the ADB PPP Monitor further confirm the well-developed PPP environment in developing Asian countries.

Despite such efforts, the application of PPPs in developing Asian countries is still limited to a few countries and sectors. For example, the Philippines, which has a high score of 75 (“developed” status) on the Economist Intelligence Unit index, has 119 PPP projects (only 35 projects excluding the energy and ICT sectors) between 1990 and 2016 (Figure 2). To address this situation, development institutions recently have changed their approach of merely

waiting for business opportunities to arise and have started to actively pursue the creation of bankable PPP projects by themselves. In 2016, the International Finance Corporation (IFC) of the World Bank launched the IFC 3.0 strategy, which emphasizes the creation of PPP markets by increasingly working “upstream” and follows a “proactive approach to both create markets and more bankable projects to attract new private investment in strategic sectors that will lead to growth and jobs” (IFC 2020). Under its strategy, the IFC would accelerate the provision of transaction advisory

Figure 2: Public–Private Partnership (PPP) Projects That Have Reached Financial Close, by Sector, 1990–2016



ICT = information and communication technology.

Source: ADB (2017: 429, 357).

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Figure 3: Outline of ADB’s Transaction Advisory Services



PPP = public–private partnership, TAS = transaction advisory services.
 Source: ADB (2019: 1).

services to developing countries to create bankable PPP projects by itself. Especially in Asia, ADB is also keen to take this approach, having established its Office of Public–Private Partnership (OPPP) in 2014 to provide transaction advisory services and technical assistance regarding PPPs to developing Asian countries. ADB also established the Asia Pacific Project Preparation Facility (AP3F) dedicated to PPP transaction advisory services and technical assistance (see Figure 3 for an outline of ADB’s transaction advisory services). In addition, the Japan International Cooperation Agency (JICA), one of the biggest bilateral development institutions, has been following the trend and conducted its first PPP transaction advisory services project in collaboration with IFC in Indonesia.

Discussion: Is Development Institution Assistance on the Right Track?

Review of Transaction Advisory Services So Far

PPP transaction advisory services are now a hot topic among development institutions, though the IFC started this type of “upstream” cooperation in 2005. Use of the service has been limited (Independent Evaluation Group

2015), but of recent it, has been decided to strengthen this service to create PPP projects to finance. This background gives rise to questions surrounding whether or not this supply-driven approach works well. Indeed, there are some anxious voices from the field. According to some government staff and development institution officers involved in the transaction advisory services, communication among stakeholders about the project design is at times problematic, at least in Asian countries. PPP projects have many stakeholders with their own interests and perspectives (Klijn and Teisman 2003), so it is not always easy to obtain a collective view, especially in the limited time of the transaction advisory services. Further, recipient country governments usually have a lot of stakeholders as well, with a number of related ministries and/or agencies, which themselves have layers of hierarchy. Each of the series of communication “games” among the stakeholders concerned with each topic involves different interactions and decision-making processes (Klijn and Koppenjan 2000). The time-consuming decision-making process for the PPP project design could make both the developing country governments and development institutions reluctant to promote transaction advisory services.

Another critical issue is recipient governments’ skepticism toward transaction advisory services. Some recipient governments have expressed that such services are business oriented and time-limited on the part

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of development institutions; therefore, details of the project and recipient governments' intentions are not always well discussed or reflected in the project design. Not all government staff have a negative stance, but it should be noted that the Independent Evaluation Group (2015) also recommends that the "PPP Advisory Services should rethink its client engagement management with a view to ensuring broad stakeholder consultation up front." Trust among the stakeholders, especially between the public and private sectors, is very important for PPP projects (Edelenbos and Klijn 2007; Warsen et al. 2018). Without trust among the stakeholders, PPP projects would never be realized. To make transaction advisory services for PPPs happen, it is important for development institutions to obtain trust from stakeholders including the recipient governments, as well as from potential investors, by intensifying communication.

Where Should Development Institution Assistance Go?

It is too early for anybody to know whether transaction advisory services are a solution to activate PPPs in developing countries, since it is a relatively new challenge. It is worth remembering that a fundamental barrier prevents PPP application in developing countries: PPPs can be realized only if there are real opportunities for gain by both public and private parties, as the Independent Evaluation Group (2013) suggests. In other words, the private side is willing to participate only in PPP projects with low risk but clear profitability, whereas the public side has the objective to transfer critical risks to the private sector—usually, demand risk is the center of the discussion. This "push-and-pull" dynamic between the public and private sectors is deemed to be the determinant of the degree of success of the transaction advisory services and application of PPPs.

Managing the conflicts of interest in PPPs is not easy, as the experience of forerunner countries shows. For example, PPPs have taken off in India, as described earlier, but the country struggled with applying PPPs in the water sector. India tried to realize PPP water projects by introducing subsidy schemes, such as Viability Gap Funding (VGF), but failed to fully activate the scheme because the private party remained skeptical whether such a government subsidy is sufficient and provided in a timely manner (Wu, Schuyler House, and Peri 2016). The PRC, however, successfully achieved significant PPP application in the water sector (447 projects between 1990 and 2016) by securing the profitability of the projects through increased water tariffs (ADB 2017). The government managed the increase in the water tariff through strong central control and bureaucratic coordination to realize their strong desire for private participation in the water sector (Wu, Schuyler House, and Peri 2016). By comparing these two countries, we derive the hypothesis that successful PPP application ultimately depends on whether the public sector can compromise with the private sector on the risk allocation (especially demand risk). This hypothesis is further supported by the developed country cases, though further research is required. For example, the Republic of Korea, one of the most PPP advanced countries in Asia, lost momentum once it abolished the minimum revenue guarantee or MRG scheme for securing the profitability of the private sector (Bae and Joo 2016).

A government's willingness to take on risk does not automatically lead to the successful application of PPPs in the country, without other enabling factors. It is worth noting again that PPPs cannot be realized without the agreement of related stakeholders, which usually requires compromise. In this sense, development institutions should not always push supply-driven assistance under the current "bubble-led" growth of

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PPPs (Trebilcock and Rosenstock 2015). They must take into account also a recipient country's intention. Developing country governments, on the other hand, should not transfer all risks to the private sector but bear appropriate risks, even though this might generate another problem: the reduction of the government's incentive to utilize PPP schemes and return to public finance. To incentivize the recipient countries and the private parties to share project risks reasonably, one possible solution might be for development institutions to provide some financial incentive through concessional loans, which are normally reserved for sovereign projects. In many developed countries, recent interest rates of central banks have been extremely low, so effective use of development institutions' concessional loans could modify the business opportunities in favor of PPP projects in developing countries.

Considering that many countries are struggling with implementing PPPs, other financial mechanisms to fill the demand of infrastructure development should be considered. Nevertheless, the importance of PPPs is warranted. One new mechanism might be to institute a land trust scheme with "spillover effects" (see Figure 4 for concept of the scheme suggested by Yoshino, Seetha Ram, et al. [2019]). The land trust scheme is extensively used for the construction of commercial buildings in Japan to reduce the initial cost of infrastructure projects by replacing the land purchase cost with a much lower land rent. Under the scheme, landowners, while retaining ownership, transfer the usage right to manage the land to a land trust bank, which further leases it to an infrastructure company; in turn, the landowners receive part of the profit as dividends (Yoshino, Hendriyetty, et al. 2019). To make the project more profitable and attract more private investment, "spillover effects" from

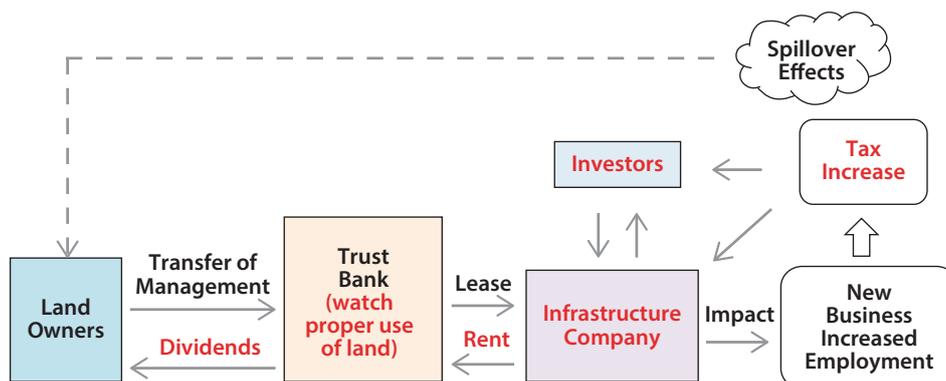
the infrastructure project (such as new businesses and employment creation as an indirect result of the project) complement the land trust scheme by returning part of the additional tax revenue generated by the spillover effects.

Conclusion and Practical Suggestions

In this brief, we reviewed the PPP situation in developing Asian countries and development institutions' assistance, discussing the way forward for developing countries and development institutions. Based on the discussion, we would like to present the following practical suggestions for future development institution assistance for PPP application in developing countries:

1. Transaction advisory services are regarded as a new sophisticated form of assistance for PPPs, but there are some concerns. To realize this approach for large deployment of PPP projects financed by development institutions through transaction advisory services, it is recommended that development institutions develop trust among all stakeholders, especially in the recipient countries, through close communication.
2. Developing countries (at least Asian countries) tend to hesitate to bear critical risks such as demand risk, which in turn hinders private participation. Therefore, development institutions are recommended to utilize their concessional loans effectively to encourage both the public and private parties to realize PPP projects. In addition, development

Figure 4: Concept of Infrastructure Investment with Land Trust Scheme and Spillover Effect



Source: Yoshino, Seetha Ram, et al. (2019: 12).

institutions should provide more awareness raising in developing countries by focusing on the benefits of PPPs other than budget saving.

3. It is undeniable that PPPs contribute to fill the financing gap caused by the huge demand for infrastructure development in developing countries. However, PPPs have not always worked so far—even in PPP advanced countries. Therefore, development institutions are recommended to consider other solutions to fill the demand, such as finance by utilizing spillover tax revenues.

This brief explores the question whether or not development institution assistance has been on the right track. This is why the analysis was limited, and discussion was only around Asian countries and on a simple qualitative basis. Future research may wish to investigate the following topics in detail: the reasons why developing countries have been struggling with PPP application; how trust among stakeholders was developed or lost during the design stage of past PPP projects; and new financial solutions for infrastructure development beyond PPP schemes.

References

- Asian Development Bank. 2017. *Public–Private Partnership Monitor: November*. Manila. doi:10.22617/TCS179134-2.
- Bae, Y., and Y.-M. Joo. 2016. Pathways to Meet Critical Success Factors for Local PPPs: The Cases of Urban Transport Infrastructure in Korean Cities. *Cities* 53 (C): 35–42. doi:10.1016/j.cities.2016.01.007.
- Bayliss, K., and E. Van Waeyenberge. 2018. Unpacking the Public Private Partnership Revival. *The Journal of Development Studies* 54 (4): 577–93. doi:10.1080/00220388.2017.1303671.
- The Economist Intelligence Unit. 2015. *Evaluating the Environment for Public–Private Partnerships in Asia-Pacific: The 2014 Infrascope*. <https://www.adb.org/sites/default/files/publication/158409/2014-infrascope.pdf>.
- Edelenbos, J., and E.H. Klijn. 2007. Trust in Complex Decision-Making Networks: A Theoretical and Empirical Exploration. *Administration & Society* 39 (1): 25–50. doi:10.1177/0095399706294460.
- Endo, K., A. Gianoli, and J. Edelenbos. 2020. Coming to Financial Close in PPPs: Identifying Critical Factors in the Case of Toll Road Projects in Indonesia. *Public Works Management & Policy* 26 (2): 115–143. doi:10.1177/1087724X20914627.
- Engel, E., D.F. Ronald, and A. Galetovic. 2014. *The Economics of Public–Private Partnership: A Basic Guide*. Cambridge, UK: Cambridge University Press.
- Hammami, M., J.F. Ruhashyankiko, and E.B. Yehoue. 2006. Determinants of Public–Private Partnerships in Infrastructure. International Monetary Fund Working Paper 06/99. Washington, DC: International Monetary Fund.
- Hodge, G.A., and C. Greve. 2007. Public–Private Partnerships: An International Performance Review. *Public Administration Review* 67 (3): 545–58. doi:10.1111/j.1540-6210.2007.00736.x.
- Hodge, G., C. Greve, and M. Biygautane. 2018. Do PPP's Work? What and How Have We Been Learning So Far? *Public Management Review* 20(8): 1105–121. doi:10.1080/14719037.2018.1428410.
- Independent Evaluation Group. 2013. Approach Paper. Evaluation of the World Bank Group's Support for Public–Private Partnerships. Washington, DC: World Bank.
- . 2015. World Bank Group Support to Public-Private Partnerships: Lessons from Experience in Client Countries, FY02-12. Washington, DC: World Bank.
- International Finance Corporation (IFC). 2020. IFC 3.0 A Strategy for Creating Markets. IFC Annual Report 2020. 14–35. Washington, DC.
- Jensen, O. 2017. Public–Private Partnerships for Water in Asia: A Review of Two Decades of Experience. *International Journal of Water Resources Development*. 33 (1): 4–30. doi:10.1080/07900627.2015.1121136.
- Klijn, E.H., and J.F. Koppenjan. 2000. Public Management and Policy Networks: Foundations of a Network Approach to Governance. *Public Management: An International Journal of Research and Theory* 2 (2): 135–58. doi: 10.1080/14719030000000007.
- Klijn, E.H., and G.R. Teisman. 2003. Institutional and Strategic Barriers to Public–Private Partnership: An Analysis of Dutch Cases. *Public Money and Management* 23 (3): 137–46. doi:10.1111/1467-9302.00361.
- Miyamoto, K., and E. Chiofalo. 2015. Official Development Finance for Infrastructure: Support by Multilateral and Bilateral Development Partners. OECD Development Co-operation Working Papers, No. 25. Paris: OECD Publishing.
- Organisation for Economic Co-operation and Development (OECD). 2008. *Public–Private Partnerships: In Pursuit of Risk Sharing and Value for Money*. Paris.
- Teisman, G.R., and E.H. Klijn. 2002. Partnership Arrangements: Governmental Rhetoric or Governance Scheme? *Public Administration Review* 62 (2): 197–205. doi:10.1111/0033-3352.00170.

- Trebilcock, M., and M. Rosenstock. 2015. Infrastructure Public-Private Partnerships in the Developing World: Lessons from Recent Experience. *The Journal of Development Studies* 51 (4): 335–54. doi:10.1080/00220388.2014.959935.
- Van Ham, H., and J. Koppenjan. 2001. Building Public-Private Partnerships: Assessing and Managing Risks in Port Development. *Public Management Review* 3 (4): 593–616. doi:10.1080/14616670110070622.
- Warsen, R., J. Nederhand, E.H. Klijn, S. Grotenbreg, and J. Koppenjan. 2018. What Makes Public-Private Partnerships Work? Survey Research into the Outcomes and the Quality of Cooperation in PPPs. *Public Management Review* 20 (8): 1165–85. doi:10.1080/14719037.2018.1428415.
- World Bank. 2020. *Private Participation in Infrastructure (PPI) 2019 Annual Report*. <https://ppi.worldbank.org/content/dam/PPI/documents/private-participation-infrastructure-annual-2019-report.pdf>.
- Wu, X., R. Schuyler House, and R. Peri. 2016. Public-Private Partnerships (PPPs) in Water and Sanitation in India: Lessons from China. *Water Policy* 18 (S1): 153–76. doi:10.2166/wp.2016.010.
- Yescombe, E.R. 2007. *Public-Private Partnerships: Principles of Policy and Finance*. Boston, MA: Butterworth-Heinemann.
- Yoshino, N., N. Hendriyetty, S. Lakhia, and W. Alwarritzi. 2019. Innovative Financing for City Infrastructure Investment by Increasing the Rate of Return from Spillover Tax Revenues. ADBI Working Paper 979. Tokyo: Asian Development Bank Institute.
- Yoshino, N., K.E. Seetha Ram, S. Miyazawa, and K. Xu. 2019. Innovative Measures for Infrastructure Investments: Illustrating Land Trust Scheme and Spillover Effect. ADBI Working Paper 1053. Tokyo: Asian Development Bank Institute.

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Asian Development Bank Institute

Kasumigaseki Building 8F
3-2-5 Kasumigaseki, Chiyoda-ku
Tokyo 100-6008
Japan
Tel: +813 3593 5500
www.adbi.org