

Evaluating the environment for public-private partnerships in Asia-Pacific

The 2011 Infrascoppe

Findings and methodology



Commissioned by





Contents

Preface	2
Executive summary	3
Scoring criteria	10
Index results	12
Overall scores	12
Category scores	13
Appendix 1: Country comments	19
Appendix 2: Calculating the index	32
Appendix 3: Detailed indicator descriptions	33
Appendix 4: Methodology and sources	42

© 2011 The Economist Intelligence Unit Ltd., and Asian Development Bank. All rights reserved.

The findings and methodology paper was written by the Economist Intelligence Unit and commissioned by Asian Development Bank.

All intellectual property rights in and to the Infrascope benchmarking tool and its methodology are owned exclusively by The Economist Intelligence Unit Ltd. The findings of the Infrascope benchmarking tool, in the context of this research for the Asia-Pacific region, are jointly owned by The Economist Intelligence Unit Ltd., and Asian Development Bank.



Preface

This document comprises a summary and analysis of a benchmark index and learning tool that assesses the capacity of countries in the Asia-Pacific region to carry out sustainable public-private infrastructure partnerships, as of June 2011. The methodology is based on a similar study of Latin America and the Caribbean published in 2009 and 2010. The index was built by the Economist Intelligence Unit and commissioned by the Asian Development Bank (ADB).

The views and opinions expressed in this publication are those of the Economist Intelligence Unit and do not necessarily reflect the official position of the ADB.

An Economist Intelligence Unit research team, led by Manisha Mirchandani, Vanesa Sanchez and Manoj Vohra conducted the study. Michael Regan, professor of Infrastructure at Bond University, Queensland, was research consultant and project adviser.

This publication follows the Economist Intelligence Unit's editorial style and practice in references to country names.

March 2012



Executive summary

In 2010 Asia rebounded spectacularly from the 2008-09 global economic crisis, reinforcing its position as one of the world's most economically dynamic regions. Nevertheless, for many countries in the region, infrastructure bottlenecks remain a major impediment to sustaining economic growth. Power shortages impinge upon the development of manufacturing and urban clusters; inadequate roads, seaports and airports hamper the movement of goods and labour; and poor water and sanitation systems pose a serious health risk to the region's poor.

As economic growth moderates in 2011, the sustainability of Asia's recovery is in focus. Although economic stimulus packages have driven construction activity in countries such as China and Thailand, others have struggled to find funds for infrastructure building. In the region's emerging economies, investment in infrastructure is essential for the development of the manufacturing and services sectors to enable countries to drive productivity and maintain long-term economic growth.

The shortfall in investment in infrastructure is widely recognised in the region, with many developing countries emphasising such investment as a priority within their national development plans. However, infrastructural development remains an expensive and complex undertaking, and the costs of continuous upkeep and improvement are high. Investment can be risky and constraints on public financing remain significant.

In the face of such challenges, countries have consolidated strategies to capitalise on private-sector financing and expertise to build and operate infrastructure assets. Those that have developed robust and efficient institutions and processes for working with the private sector, such as the UK and Australia, have successfully used public-private partnerships to bridge the financing gap and drive infrastructure projects. Emerging markets have viewed such developments with interest, experimenting with various modes of private-sector engagement. Not all have been successful. Ongoing fiscal limitations, poor feasibility assessments and regulatory barriers have caused delays in the execution of projects, while concerns about financial viability, oversight and poor service delivery have arisen once contracts have been signed.

While the private sector has emerged as a significant player in financing building and operating infrastructure assets across Asia, the potential of PPPs to drive much-needed investment and efficiency gains has not been fully realised in many countries. To ensure success, public-sector project planning and selection, as well as implementation capacity, need to be improved. At the same time, the private sector has a role to play in conducting due diligence and fostering competitive markets.

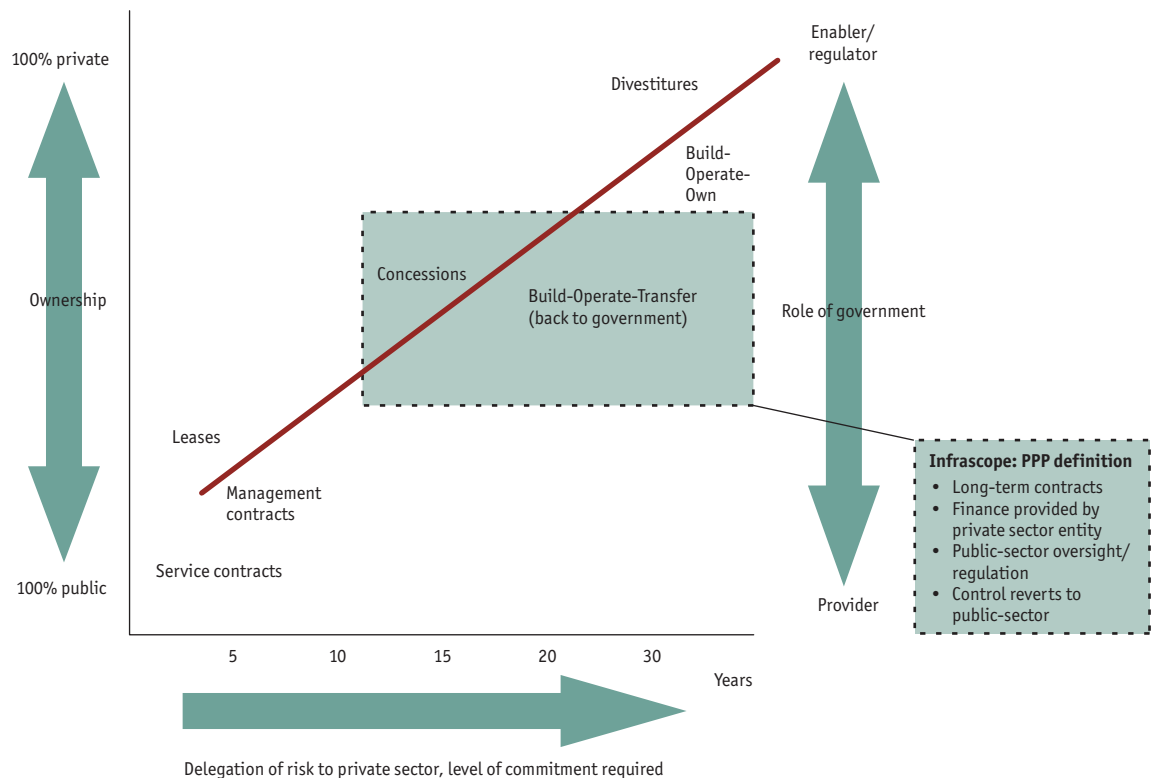


Developed by the Economist Intelligence Unit, the Asia Infrascopes is a benchmark index and learning tool that assesses countries' readiness and capacity for sustainable, long-term PPP projects. The study scores aspects of the regulatory and institutional frameworks; project experience and success; the investment climate and the financial facilities in 11 developing countries in Asia-Pacific, four benchmark countries (Australia, Japan, Republic of Korea (South Korea), UK) and one state (Gujarat, India). The methodology is based on a similar study of Latin America and the Caribbean commissioned by the Multilateral Investment Fund (MIF, a member of the Inter-American Development Bank Group) and published in 2009 and 2010. The Infrascopes scores aspects of the legal and regulatory framework and the investment environment for PPP infrastructure projects in each country, and involves in-depth industry analysis, interviews with country and regional field experts and secondary research.

Evaluating the environment for public-private partnerships in Asia-Pacific

A growing body of international evidence points to the importance of a favourable regulatory environment and robust institutional framework in developing sustainable and efficient PPP infrastructure projects. A country's public-sector capacity and implementation experience also have a bearing on viability, as does the investment climate and availability of financial instruments for long-term financing.

Figure 1
PPP models: Infrascopes focus



Source: Economic and Social Commission for Asia and the Pacific, Economist Intelligence Unit.



By transferring responsibility for service provision to the private sector, PPPs are a means of improving allocation of risk and investment efficiency, while ensuring public-sector accountability for essential services. The Infrascope seeks to examine a country's readiness to undertake long-term PPPs in an efficient and sustainable manner. Accordingly, we have utilised a definition of "PPP" that focuses on longer-term contracts, where the PPP arrangement reflects a significant transfer of operational and commercial risk to the private sector.

The study refers to long-term contracts between a public-sector body and a private-sector entity for the design, construction operation and maintenance of public infrastructure. Finance is usually provided by, and significant construction, operation and maintenance risks transferred to, the private-sector entity. The public-sector body remains responsible for policy oversight and regulation, with complete control generally reverting to them at the end of the contract term.¹ It is notable that there is robust activity in much of Asia for shorter-term leases and management or service contracts for infrastructure assets. While the Infrascope does not focus on such arrangements, it can be assumed that good capacity and preparedness for concessions and Build-Operate-Transfer (BOT) arrangements translates to some degree of "readiness" for the award and management of such contracts. Consideration of the full privatisation of assets—divestiture or Build-Operate-Own (BOO) of infrastructure assets to private-sector parties or government-affiliated enterprises—is outside the remit of the study, although it is a model that has been utilised in some countries across the region to promote infrastructural development.

¹ See Infrascope Background and Methodology for full definition.

An interactive learning tool

The Asia Infrascope features the Economist Intelligence Unit's independent evaluation of each country as of June 2011, but also allows users to score indicators and re-weight categories. The index is not designed as an investment tool for private-sector financiers (as the data and indicators are largely qualitative and sectors have been aggregated). However, it provides a valuable starting point for a dialogue among policy makers on improving the enabling environment for infrastructure PPPs, through the benchmarking and comparison of key aspects across countries including the investment climate and legal and regulatory environment. A comprehensive assessment of laws and regulations is available in the index, which is available free of charge as an Excel tool at ww.eiu.com/sponsor/Asiainfrascope. The Infrascope's standardised structure enhances transparency, deepening and broadening stakeholder knowledge of PPPs. PPPs are used in a wide variety of sectors beyond transport, water/sanitation and energy generation, but we have concentrated on these sectors due to data-availability constraints and the need to maintain a tight analytical focus. To ensure global comparability, the framework used for the Latin America and Caribbean Infrascope has been applied to the Asia-Pacific region, with adjustments made to capture distinctive features of the legal environment and practices within the region.

The inclusion of Gujarat acknowledges the development of distinctive PPP ecosystems at the sub-national level in some of the world's larger countries. In India's federated structure, Gujarat has developed its own systems and a rich body of experience in implementing infrastructure PPPs. This pilot study of a state (as opposed to a nation) attempts to assess the capacity and preparedness of a significant sub-national entity independent of national assessment. Instead of a sub-national adjustment score, a proxy for the India national score has been applied to control for national-level factors that may constrain



or facilitate the effectiveness of PPPs at the local level, and to ensure consistency with the national-level evaluations.

An Excel interactive learning tool has been developed by the Economist Intelligence Unit, which allows users to; analyse, compare and visualise country information; reweight categories; and self-score indicators. It is available to download for free of charge at www.eiu.com/sponsor/Asiainfrascope.

“PPP-readiness” in Asia-Pacific

The results of the assessment suggest that countries can be grouped into four categories which categorise the environment for sustainable, long-term PPPs: mature, developed, emerging and nascent (see Figure 2). Overall scores and category scores are available in the interactive Excel learning tool, which enables users to conduct “what if” analysis, and better understand how a country can improve its enabling environment. A country’s overall score comprises of weighted category scores of its: regulatory and institutional framework, operational maturity, investment climate, financial facilities, and sub-national adjustment.

Figure 2
2011 Asia Infrascope and 2010 Latin America and Caribbean Infrascope, overview

	Nascent	Emerging	Developed	Mature
Score range	0-30	30-60	60-80	80-100
Asia-Pacific (and benchmark countries)	Mongolia	Bangladesh	Gujarat state	Australia
	Papua New Guinea	China	India	UK
	Vietnam	Indonesia	Japan	
		Kazakhstan	Korea, Rep.	
		Pakistan		
		Philippines		
		Thailand		
Latin America and the Caribbean	Argentina	Colombia	Brazil	
	Dominican Republic	Costa Rica	Chile	
	Ecuador	Guatemala	Peru	
	El Salvador	Mexico		
	Honduras	Panama		
	Jamaica	Uruguay		
	Nicaragua			
	Paraguay			
	Trinidad & Tobago			
	Venezuela			

Source: Economist Intelligence Unit

Australia, the region’s most developed economy and a world leader in PPP practice, tops the 2011 index, scoring 92.3 points out of 100, owing to strong regulatory, institutional and investment conditions. Meanwhile, the country’s state-level success with high-profile initiatives such as Partnerships Victoria bolstered its sub-national adjustment score. The second-ranked country, the **UK**, demonstrated similar strengths, along with strong institutional capacity and sound implementation practices, scoring a total of 89.7 points. This solid performance is unsurprising, given the UK’s Private Finance Initiatives (PFIs). Both Australia and the UK can be classified as “mature” PPP markets, with substantial levels of PPP activity under their belts and sophisticated frameworks and capacity in place for planning and implementing complex projects.



Republic of Korea, India, and Japan are the top-performing Asia-Pacific countries in 2011 Infrascope, with scores of 71.3, 64.8, and 63.7, respectively. They sit more comfortably with the cluster of countries in the 2010 Infrascope for Latin America and the Caribbean that could be classified as “developed”—all boasting a decent institutional and regulatory framework, but lacking the sophistication of the “mature” markets of Australia and the UK in addressing some of the more nuanced challenges brought about by PPPs. Republic of Korea (71.3) takes third place on the index by virtue of its solid regulatory and institutional framework, and robust financial facilities for infrastructure funding. As a sub-national entity operating under India’s regulatory and institutional central framework, **Gujarat’s** state-level PPP regulations and its strong investment environment drive an overall score of 67.6, putting it in fourth place.

Japan and India achieve overall scores which are very close—perhaps surprising initially, given the former’s deep and sophisticated financing facilities and the latter’s reputation for bureaucratic and regulatory hold-ups. Japan (63.7) has decent fundamentals for a strong PPP market, but has yet to fully embrace the PPP concept in practice. However, Japan is currently reforming its PPP laws; should it begin to deliver on larger-scale projects its index performance could improve significantly in coming years. PPP development in India (64.8) has been driven by strong political will and advances in public capacity and processes. However, lingering problems with the cohesiveness of regulations and the consistency of interactions between central government and the states are systemic, and will only be addressed over time.

An intense period of infrastructural development over the past decade placed China, scoring an overall 49.8 points, at the top of the pack in terms of operational maturity—a category of the index that examines a country’s experience with past projects. According to the World Bank Private Participation in Infrastructure Advisory Facility (PPIAF) database, a staggering 614 projects in electricity, water and transport infrastructure reached financial closure in 2000-09 in China, in spite of an underdeveloped institutional framework and regulatory environment. The will and capacity to execute such projects at the sub-national level is strong, particularly in key cities and provinces such as Beijing, Shanghai and Zhejiang.

Other “emerging” PPP countries have experienced mixed success in the development and execution of projects, and have recently taken concerted action to improve aspects of the operating environment or to boost institutional capacity. **Pakistan, Bangladesh and Kazakhstan** have undergone significant regulatory reform, with the ratification of new PPP acts, while at the same time developing institutional frameworks from the ground up. More experienced countries, such as **Thailand, Indonesia** and the **Philippines**, have updated, or are in the process of updating, regulations and have restructured existing institutional frameworks in the hope of improving the processes around PPP selection and oversight, and to develop specialist capacity in the public sector.

Vietnam, Mongolia and Papua New Guinea occupy the lower end of the index, with scores below 30 out of a possible 100. This is in part a function of limited country experience with PPPs—Vietnam has only recently developed pilot legislation allowing PPPs between private- and public-sector entities, although the country has had some experience in engaging private-sector parties in the development of power facilities. Meanwhile, Mongolia and Papua New Guinea registered no PPP projects that reached financial closure in 2000-09 according to the World Bank PPIAF database. Regulatory frameworks and institutional arrangements are not yet robust, although decent levels of political will towards deploying



PPPs as a means of boosting much-needed infrastructure investment in the three countries are notable. In Asia-Pacific, there are no countries resisting the incorporation of private investment in infrastructure, with generally positive attitudes towards the concept of private-sector participation in infrastructural development. This is in contrast to Latin America and the Caribbean, which saw the three countries at the bottom end of the 2010 LAC Infrascopes index (Venezuela, Nicaragua and Ecuador) actively dismantle the institutional capacity needed to execute and oversee projects.

Regional trends

The story in Asia-Pacific today is one of optimism regarding the capacity of private-sector participation to drive much-needed infrastructural development. This is reflected in high levels of government willingness to improve the regulatory environment and establish the necessary institutions to develop and manage infrastructure PPP projects. In the past few years, regulatory change has swept across the region, resulting in the majority of countries updating existing policy frameworks or establishing new PPP Acts in law (Bangladesh, Pakistan, Mongolia and Vietnam), with a number of significant reform initiatives under consideration (Japan, Thailand, Papua New Guinea, Kazakhstan and the Philippines). Improvements have focused in particular on the bidding process, with the aim of developing competitive markets for procurement.

Reforms have been accompanied by efforts to improve institutional frameworks, boost project expertise in the public sector and to define the roles and responsibilities for public-sector entities in PPP oversight and planning. New PPP-dedicated units have been established, or are pending, in Japan, Bangladesh, Indonesia, Kazakhstan, Mongolia, Pakistan, and Papua New Guinea, while restructuring of the PPP agencies has taken place in Indonesia and the Philippines. Thailand and Vietnam have recently launched inter-ministry taskforces to develop the PPP agenda, and India has the ministerial-level Committee on Infrastructure, with both the Planning Commission and the Department of Economic Affairs supporting development and execution of projects. China is distinctive in lacking of PPP-specific institutions, with such projects handled in a similar fashion to state infrastructure projects.

Well-designed regulatory and institutional frameworks are necessary conditions for most markets, but for all the efforts around regulatory reform and institutional change that have been invested to date, it is the capacity of the public sector to react systematically to the complexities associated with infrastructure PPPs that will ensure long-term success. The appropriate allocation of risk, efficient dispute-resolution mechanisms, strong project-finance structuring skills and the robust negotiation of contracts are critical to good project execution, as is effective public-sector oversight. The nascent and emerging PPP markets in the region have yet to develop the institutional capacity and expertise required to bring these frameworks to life. The proof is in the implementation.

Yet, despite weak regulatory frameworks and underdeveloped institutions, China has seen an unprecedented level of PPP infrastructure activity in the past decade, driven by a strong investment climate and the sheer scale of the opportunity. The lure of a sizable market and a reasonable operating environment has also resulted in significant levels of private-sector infrastructure investment in other large countries such as the Philippines and Thailand despite the “emerging” state of their PPP readiness. Such projects come with no guarantee of sustainability, as exemplified by evidence of disputes and



distress. Still, the attractiveness of the country's investment proposition is critical, as is the imperative to get the rules and the institutions right. Prospects for Asia-Pacific as a region are bright, given the increasing attractiveness of its business environment and the growth of increasingly sophisticated domestic financial facilities. However, weak government effectiveness in implementing policy and a tendency towards political distortion in the private sector remain a threat to fostering sustainable and efficient PPP infrastructure projects in the region.

Infrascope background and methodology

In this study, "PPP" refers specifically to projects that involve a long-term contract between a public-sector body and a private-sector entity for the design, construction (or upgrading), operation and maintenance of public infrastructure. Finance is usually provided by, and significant construction, operation and maintenance risks are transferred to, the private-sector entity, which also bears either availability or demand risk. However, the public-sector body remains responsible for policy oversight and regulation; and the infrastructure generally reverts to public-sector control at the end of the contract term.

The themes identified in the Infrascope, as well as the sector focus, were developed in collaboration with a group of regional and sector experts. This group was composed of country specialists and stakeholders (policymakers, lawyers, consultants and development bank staff), as well as regional and international PPP experts. The group validated the choice of sectors and category weightings were also agreed on. The Economist Intelligence Unit worked with independent regional and country experts to make region-specific adjustments to indicators, allowing for the consideration of various features specific to the business environment in Asia-Pacific, including the prevalence of single-source and unsolicited bids, and the presence of common law legal systems.

The categories that make up the overall index pinpoint crucial aspects of the PPP value chain, starting at project-conception and spanning contract-design, enforcement, supervision, termination and financing. Specifically, the index evaluates readiness and capacity by dividing the PPP project life-cycle into five components: 1) a country's **legal and regulatory framework** for concession projects; 2) the design and responsibilities of institutions that prepare, award and oversee projects (**institutional framework**); 3) the government's ability to uphold laws and regulations for concessions, as well as the number and success rate of past projects (**operational maturity**); 4) the business, political and social environment for investment (**investment climate**), and 5) the **financial facilities** for funding infrastructure. In addition, to recognise the significance of activity occurring at the regional level, an additional, stand-alone sixth category and indicator for sub-national PPPs was added in 2010 (**sub-national adjustment factor**).

Several of the indicators that compose the index are based on quantitative data; these have been drawn from international statistical sources. The others are qualitative in nature and have been produced by our team. Many of these focus on legal and regulatory factors and are informed by publicly available information and interviews with sector and country experts. In the absence of data, the Infrascope uses qualitative measures that capture some elements of these important factors.



Scoring criteria

The Infrascope index comprises 19 indicators, of which 15 are qualitative and four quantitative. Data for the quantitative indicators are drawn from the World Bank and the Private Participation in Infrastructure Advisory Facility (PPIAF) data base and from the Economist Intelligence Unit's Risk Briefing service. Gaps in the quantitative data have been filled by estimates.

The scoring of qualitative indicators was informed by a range of primary sources (legal texts, government web sites, press reports and interviews), secondary reports and data sources adjusted by the Economist Intelligence Unit. The main sources used in the index are the Economist Intelligence Unit, the World Bank and Transparency International.

The categories and their associated indicators are as follows:

1. Legal and regulatory framework (weighted 25%)

- 1.1 Consistency and quality of PPP regulations
- 1.2 Effective PPP selection and decision-making
- 1.3 Fairness/openness of bids, contract changes
- 1.4 Dispute-resolution mechanisms

2. Institutional framework (weighted 20%)

- 2.1 Quality of institutional design
- 2.2 PPP contract, hold-up and expropriation risk

3. Operational maturity (weighted 15%)

- 3.1 Public capacity to plan and oversee PPPs
- 3.2 Methods and criteria for awarding projects
- 3.3 Regulators' risk-allocation record
- 3.4 Experience in electricity, transport and water concessions
- 3.5 Quality of electricity, transport and water concessions



4. Investment climate (weighted 15%)

- 4.1 Political distortion
- 4.2 Business environment
- 4.3 Political will

5. Financial facilities (weighted 15%)

- 5.1 Government payment risk
- 5.2 Capital market: private infrastructure finance
- 5.3 Marketable debt
- 5.4 Government support for low-income users

6. Sub-national adjustment factor (weighted 10%)

- 6.1 Sub-national adjustment

A detailed explanation of each indicator and scoring method is given in Appendix 2.



Index results

Overall scores

The overall results of the 2011 Asia Infrascope show country rankings as based on the weighted sum of the six category scores. The index scores countries on a scale of 0 to 100, where 100 represents the ideal environment for PPP projects. A breakdown of overall rankings by individual indicator can be seen in the Excel interactive learning tool, which is available via free download at www.eiu.com/sponsor/Asiainfrascope.

1	Australia	92.3
2	UK	89.7
3	Korea, Rep.	71.3
4	Gujarat State	67.6
5	India	64.8
6	Japan	63.7
7	China	49.8
8	Philippines	47.1
9	Indonesia	46.1
10	Thailand	45.3
11	Bangladesh	39.2
12	Pakistan	38.8
13	Kazakhstan	34.3
14	Vietnam	26.3
15	Mongolia	23.3
16	Papua New Guinea	20.8



Category scores

1. Legal and regulatory framework

1	Australia	100.0
2	UK	96.9
3	Korea, Rep.	78.1
4	Gujarat State	65.6
5	India	59.4
6	Japan	50.0
7	Philippines	43.8
=8	Bangladesh	40.6
=8	Indonesia	40.6
10	Pakistan	34.4
11	China	31.3
12	Thailand	28.1
=13	Kazakhstan	25.0
=13	Mongolia	25.0
15	Vietnam	18.8
16	Papua New Guinea	15.6

Out of the 15 countries and the single state in this study, the top-ranked, Australia, the UK, and the Republic of Korea, also scored highest in this category, with cohesive national frameworks in place. Notably, only the Republic of Korea has a dedicated PPP Act. Open and competitive bidding is a requirement in these countries, with economic value, rather than just lowest cost, a leading factor. In particular, these countries distinguish themselves by the use of sophisticated mechanisms for proposal evaluation and project selection.

India has strong systems in place for PPP project-selection and bidding, but suffers from a degree of incoherence in practice between state and national frameworks. Gujarat State, under the umbrella of the national framework, has developed

its own PPP act, providing a coherent state-level framework for PPP development.

Regulatory reform has swept across the region in recent years, with several countries instituting new acts, updating frameworks, or currently considering amendments. Bangladesh, Pakistan, Mongolia and Vietnam have recently instituted new PPP regulations, while the Republic of Korea and Indonesia have updated PPP laws in the past few years. Japan, Thailand, Papua New Guinea, Kazakhstan and the Philippines have recognised the need to update their frameworks and are currently pushing revisions through their respective legislatures, with the aim of improving the effectiveness and clarity of the legislation and regulation for PPP infrastructure. There are currently no tangible initiatives to reform regulations in China and India, despite the former's fairly weak regulatory set-up, and a lack of cohesion within the latter's existing framework.



There are a number of challenges associated with dispute-resolution in the courts that are more pronounced in the developing economies—delays, concerns over judicial independence and issues of capacity related to complex, technical cases. These lead to a wide range of mechanisms being deployed. Alternative Dispute Resolution (ADR) mechanisms, including conciliation, renegotiation and arbitration, are used in nearly all countries, although there are barriers to the use of arbitration for PPP contracts in countries such as Vietnam and Thailand.

2. Institutional framework

=1	Australia	100.0
=1	UK	100.0
3	Korea, Rep.	75.0
=4	India	66.7
=4	Japan	66.7
=4	Gujarat State	66.7
7	Thailand	50.0
=8	Indonesia	41.7
=8	Kazakhstan	41.7
=8	Philippines	41.7
=11	Bangladesh	33.3
=11	Pakistan	33.3
=13	China	25.0
=13	Mongolia	25.0
=13	Papua New Guinea	25.0
16	Vietnam	16.7

The top three countries in the overall index—Australia, the UK and the Republic of Korea—also have the best scores for institutional framework, in part owing to the provision for checks and balances in project-implementation and monitoring. All have good institutions and processes for project-preparation and approval, and there is strong oversight by regulators to ensure compliance. Australia and the UK move ahead by virtue of their sound mechanisms in the case of compensation for early termination, and of efficient replacement of failed operators.

Across the majority of countries in the study, there have been concerted efforts to bolster the institutional framework, and ensure that there are clearly defined roles for public-sector agencies to enable PPP oversight and planning. New PPP-

dedicated units have been, or are in the process of being, established in Japan, Bangladesh, Indonesia, Kazakhstan, Mongolia, Pakistan, and Papua New Guinea. The Philippines has recently relocated its PPP unit, while Indonesia is currently developing a new entity within its development agency. Thailand and Vietnam have recently launched inter-ministry taskforces to develop the PPP agenda, and India has the powerful ministerial-level Committee on Infrastructure, with both the Planning Commission and PPP Unit of the Department of Economic Affairs supporting development and execution of projects. China is distinctive in its lack of PPP-specific institutions, with such projects handled in a similar fashion to state infrastructure projects.

Risk of hold-up is an area of some concern across the region with respect to judicial enforcement. Lengthy proceedings and bureaucratic hold-ups are fairly common, notably in the South Asian countries, although expropriation risk is not a serious concern in the region.



3. Operational maturity

1	China	78.1
2	UK	76.7
3	India	70.0
4	Korea, Rep.	68.8
5	Australia	66.5
6	Japan	61.4
7	Gujarat State	61.1
8	Thailand	50.9
9	Indonesia	47.9
10	Philippines	44.8
11	Pakistan	41.8
12	Bangladesh	41.0
13	Vietnam	25.5
14	Kazakhstan	15.7
15	Papua New Guinea	6.3
16	Mongolia	3.1

In spite of its underdeveloped regulatory and institutional frameworks for PPPs, China has accrued a phenomenal wealth of PPP experience in the past decade or so, registering 614 projects in water, electricity and transportation reaching financial closure in 2000-09, according to the World Bank PPIAF database.² Driven by high rates of economic growth and ambitious government plans for infrastructural development, the country's pool of project experience is unmatched globally. China gains top marks in this category as a result, although institutional development lags significantly behind project roll out. India is next, with a respectable 261 projects, followed by the Republic of Korea with 78 registered projects, consolidating a high degree of PPP activity in the region. Eleven of the countries in this study have

had at least 20 concessions projects in the past ten years. At the other end of the spectrum, Mongolia and Papua New Guinea had no registered concessions in 2000-09, with only two for Kazakhstan.³

Generally, countries with good capacity levels also have better methods and practices for awarding projects, as exemplified by the UK and Australia—despite the relatively smaller size of the PPP markets compared with larger countries, the skilled labour pool is sufficient, with high levels of the requisite technical and financial expertise. Following on from a high number of projects conducted in the last decade, several countries have accumulated decent levels of specialist expertise for project-planning, design and financing in the public sector, notably India, Japan, the Republic of Korea, Thailand and Gujarat State. In improving their institutional frameworks, many other countries have paid due attention to developing public capacity, often with the financial and technical support of multilateral institutions and donor governments and the development of public-sector expertise has been a common ambition for many of the middle-income and developing countries in the index.

² Figures do not include management contracts, leases or divestitures. Numbers do not necessarily match other explanations in the index, owing to different counting methods and timeframes. Where countries were not featured in the World Bank PPIAF database, we drew on credible alternative sources.

³ Analysis and figures for project-cancellation and distress are based on information taken from the World Bank PPIAF database. In-country research and anecdotal evidence suggest that the project distress rate could be significantly higher in practice.



4. Investment climate

1	Australia	87.4
2	UK	82.3
3	Gujarat State	80.0
4	Japan	57.5
5	Korea, Rep.	54.2
6	India	52.3
7	China	51.6
8	Indonesia	50.3
9	Thailand	48.6
10	Bangladesh	47.3
11	Mongolia	46.9
12	Vietnam	46.4
13	Philippines	46.3
14	Kazakhstan	43.3
15	Pakistan	43.0
16	Papua New Guinea	17.7

The recent history of regulatory and institutional reform in the region is a reflection of favourable government attitudes towards PPPs, with Gujarat State scoring particularly highly in this category, along with Australia and the UK. Countries have openly welcomed the concept of private-sector engagement in infrastructure, with the majority demonstrating political consensus around the need to engage with the private sector and provide favourable frameworks, although implementation can be slow. Only in Papua New Guinea are there concerns of political opposition to the development of the PPP agenda. Asia-Pacific as a whole compares favourably to Latin America, where conditions for private investment are hostile in Venezuela, Nicaragua and Ecuador, the three countries at the bottom of the 2010 index.

As a general rule, Asia's large, fast-growing economies also benefit from a thriving business environment and attractive market opportunities, although political distortion affecting the private sector and the effectiveness of policy-implementation remain concerns in the region.

5. Financial facilities

=1	Australia	94.4
=1	UK	94.4
3	Korea, Rep.	88.9
4	Japan	83.3
5	Gujarat State	77.8
6	India	72.2
7	China	66.7
8	Philippines	61.1
=9	Kazakhstan	55.6
=9	Thailand	55.6
11	Indonesia	52.8
12	Bangladesh	44.4
=13	Pakistan	38.9
=13	Papua New Guinea	38.9
15	Vietnam	33.3
16	Mongolia	13.9

Project financing is readily available for the developed countries in the index; Australia, the UK, the Republic of Korea and Japan all benefit from deep and liquid markets for private infrastructure financing and marketable debt with long-term maturities. Major domestic and foreign banks compete to provide financing for projects, providing conventional financing and other options, while all four countries have sophisticated domestic debt markets. India and China both have domestic medium-term debt markets for both private- and public-sector issuers, although depth remains an issue.

India and China's markets for private infrastructure finance have evolved quickly in recent years. While India (and by extension



Gujarat) is developing new domestic initiatives to promote the flow of private funds to infrastructure, most notably in private equity, the markets are not yet deep, despite home-grown instruments developing in size and complexity. China, however, is still reliant on offshore lending from Singapore and Hong Kong for private financing, with finance deals for large projects requiring State Council approval. There are some, albeit less forthcoming, sources of private finance available in Indonesia, Kazakhstan, the Philippines and Thailand, with fewer domestic instruments. Exchange- and interest-rate hedging instruments are generally available, although many countries that are currently active in PPPs still depend on foreign funds and currencies to finance projects. Most countries do have debt markets with medium-term maturities issued by the government, although these are limited and depth remains an issue.

Government payment risk is evenly spread across the countries in the index, with Australia and the UK most likely to fulfil obligations to investors and offer guarantees. At the other end of the scale, high levels of sovereign debt risk increase the government payment risk on infrastructure PPPs for Mongolia, Pakistan and Vietnam.

The culture of government support for low-income users to improve access to services and drive demand is not particularly strong in the region, with most countries issuing subsidies for improved access in water, transport or electricity to low-income users only infrequently and usually through indirect means. Price distortions through subsidies on petrol, electricity, and, in some cases water, have been problematic in several countries featured in the index, particularly in the context of rising commodity prices. Artificially low prices as a result of government subsidies and pricing policies are having a distorting effect in some markets, such as Vietnam, Mongolia and Bangladesh.

6. Sub-national adjustment

1	Australia	100.0
=2	China	75.0
=2	India	75.0
=2	Japan	75.0
=2	UK	75.0
=6	Indonesia	50.0
=6	Pakistan	50.0
=6	Philippines	50.0
=6	Korea, Rep.	50.0
=6	Thailand	50.0
=6	Gujarat State	50.0
=12	Bangladesh	25.0
=12	Kazakhstan	25.0
=12	Mongolia	25.0
=12	Papua New Guinea	25.0
=12	Vietnam	25.0

Asia's largest economies have developed a decent set of frameworks for sub-national level PPPs, with good implementation-capacity and institutional design emerging at the state level in particular. Of the 15 countries in this study, all are empowered to develop infrastructure assets through PPP at a sub-national level, although the majority lack technical capacity or will, preventing them from seriously pursuing projects at this level. Around 90% of Australia's PPPs are administered at the state level, resulting in an important and diverse sub-national programme. The UK boasts a strong sub-national scheme, although capacity does vary by municipality. Japan has a robust municipal-level programme, but large projects remain within the purview of the central government.

India's states are generally active in PPPs and



many have their own PPP laws and regulations (although these cannot override the national regulations). The biggest constraint at a sub-national level is the heterogeneity caused by the variation among state frameworks and institutional set-ups, which creates a maze of regulatory detail. Gujarat emerges as one of the top destinations in India for PPP projects, developing its own set of specific laws and institutions within the boundaries of the framework established by the central government. China also has a provincial- and city-driven PPP programme operating under national regulation, but public capacity varies significantly across the states and cities.

For other countries, sub-national capacity is fairly weak, and there is limited project activity, with many choosing to focus on the development of national-level frameworks and projects.



Appendix 1: Country comments

This section spotlights the performance of individual countries in the index. For full, individual country profiles and indicator scores, please refer to the underlying index and “country profile” tab, available at www.eiu.com/sponsor/AsiaInfrascope.

Australia

A world leader in PPP initiatives, Australia has well-established rules and practices at all stages of the process.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	92.3	100	100	66.5	87.4	94.4	100
Rank	1	1	=1	5	1	=1	1

Australia has an impressive record on infrastructure PPP projects. There is no specific legal framework, but a variety of laws and policies cover government procurement, including the Financial Management and Accountability Act (1997). In practice, this regime provides for very clear project-selection, risk-management, oversight, and compensation. Projects have been undertaken in a wide range of social and economic infrastructure services, although few PPPs occur in the energy sector. Around 90% of projects are administered at a local level by the departments of infrastructure, finance and treasury; the Department of Infrastructure and Transport’s Major Infrastructure Projects Office oversees those undertaken at a federal level. Any government contract with a value of over A\$50m (US\$54.2m) must be considered for delivery as a PPP.

Before projects can be offered, however, it must be demonstrated that a PPP would provide superior outcomes to all other forms of procurement, and also offer better value, that a Public Sector Comparator, which estimates the whole-life cost of a project if delivered entirely by government. A Public Interest Test is also applied, to evaluate the indirect effect of the project on aspects such as privacy and security.

Bidding is transparent and fair, and the government’s policy requires a competitive process, Dispute-resolution is handled through expert evaluation or arbitration, in order to avoid expensive and time-



consuming legal disputes. When the courts do become involved, judges appear to deal with matters in an impartial and expert fashion. Project failure, however, is rare, with only two contracts having been returned to state management. A range of institutions ensure compliance with the PPP process, including the Department of Finance and Administration’s Australian Public-Private Partnerships Unit, which provides advice to, and evaluates proposals for, government agencies. These bodies also provide adequate guidance on risk-transfer, which has improved greatly from the old position of attempting to put the greatest amount of risk on the shoulders of the private partner. Projects such as the Gateway Tunnel in Sydney, which has disappointed in a commercial sense, nevertheless included appropriate risk-transfer management. Politically, all major parties support PPP projects, and the strong state of the public finances, and depth of capital markets, mean that stability and the ability to gain project finance are both robust. Foreign banks, as well as the Australian “Big Four”, compete to provide such financing, for periods of up to 17 years.

Bangladesh

A new regulatory framework and new institutions suggest improvements to come for the PPP environment in Bangladesh. Despite the government’s obvious enthusiasm, however, problems remain.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	39.2	40.6	33.3	41.0	47.3	44.4	25.0
Rank	11	=8	=11	12	10	12	=12

Bangladesh has had experience of PPP projects since the 1990s, but overhauled its system in 2010, with the introduction of a new framework under the Policy and Strategy for Public-Private Partnerships (PSPPP). The PSPPP provides for a competitive bidding process and oversight, although it remains ambiguous on the question of risk-allocation and compensation. Currently, there is no specific PPP Act in place. The Central Procurement Technical Office monitors and oversees the procurement process, while the process from project-identification to award is the responsibility of the relevant line ministry commissioning the project. To date, the bidding process has suffered from a lack of transparency, although improvements were made in 2010 (for instance, the introduction of the “Swiss Challenge” method for unsolicited bids which allows for third parties to match or exceed the offer made by the original proponent). The judicial process is also problematic, with a lack of capacity to deal with cases, poor knowledge, and lengthy settlement periods holding up proceedings.

Currently, a PPP Office within the Prime Minister’s Office is being developed, in order to support relevant ministries in their project-selection and oversight, while a PPP unit (under the Ministry of Finance) is to be developed in order to issue guidelines. As this system is still evolving, there is a general lack of expertise on technical issues, although bodies like the government-owned Infrastructural development Company Ltd (IDCOL) do have some relevant experience. Matters are likely to improve owing to the government’s mandate and strong political will to promote PPPs, although, as with many developing countries, bureaucracy and inefficiency are concerns. Large-scale infrastructure projects



also face challenges in attracting financing, owing to a lack of projects that actually meet the funding standards of the IDCOL, which exists to provide long-term senior and subordinated debt to relevant projects under certain criteria. Outside of the IDCOL, there are limited options, owing to Bangladesh's relatively small and underdeveloped debt markets.

China

Continued strong growth and great infrastructural requirements create an environment of opportunity. A lack of clear rules and transparency presents significant challenges to development.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	49.8	31.3	25.0	78.1	51.6	66.7	75.0
Rank	7	11	=13	1	7	7	=2

China has a wealth of experience with PPPs, going back to the 1990s. Nevertheless, the legal environment is not strong, and the majority of projects involve State-Owned Enterprises (SOE), rather than genuinely private concerns. Bureaucracy and regulation at all levels, along with a lack of provision for risk-allocation or compensation in China's PPP rules, add to the difficulty. The Ministry of Housing and Urban-Rural Development has issued contract samples that strongly reinforce the importance of performance bonds at all stages, although this has not had much impact on the number of disputes during the concession period, which remains high. It is difficult to determine whether PPPs are selected based on value for money (VFM), as information related to appraisal and project details is not typically available.

China has no specific national-level PPP agency, with projects being treated in the same way as traditional state infrastructure projects. The State Council and its ministries approve PPP projects, and then oversee their management. Generally, the government is keen on greater use of PPP projects owing to the country's massive infrastructural requirements, which local governments are not always able to meet. There is also a vast difference between the capacity of large localities, like Beijing, Zhejiang, or Shanghai, to handle PPP projects, and that of more rural jurisdictions. Financing typically comes from offshore sources, in the form of syndicated loans or project finance deals through Hong Kong or Singapore.

India

A high level of interest and experience with PPP projects, as well as the maturing of processes and the institutional framework, belie a lack of regulatory clarity.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	64.8	59.4	66.7	70.0	52.3	72.2	75.0
Rank	5	5	=4	3	6	6	=2



PPP projects have a deep history in India, with a high level of overall acceptance and use of the model. There is no PPP act at a federal level, leading to a certain amount of disconnect and regional variation (some states have their own PPP policies or acts); however, in recent years, several national bodies have begun to be seen as components of the institutional structure for PPPs, such as the Committee on Infrastructure (chaired by the prime minister); the Planning Commission; and the PPP Unit of the Department of Economic Affairs. Following a Supreme Court ruling in 2009, the awarding of projects has been subject to the meeting of requirements on transparency and competition. Strategic planning, pre-feasibility analysis, financial viability, PPP suitability, and “readiness” must all be demonstrated, leading to a process that is seen as largely fair and predictable, albeit time-consuming. Dispute-resolution takes place through either “amicable settlement” or arbitration; foreign bidders may also make use of international arbitration.

Government agencies have a relatively high level of proficiency in PPP projects, particularly with regard to monitoring of construction. Assistance from multilateral agencies has also helped, although there is a certain skill shortage in the oversight of operation and management. While there is still the lack of a properly evolved framework, risk-allocation has been improving since the introduction of Model Concession Agreements in 2004. The fact that states are gaining in power muddies the water, as outlooks, laws, and even the willingness of administrations to adhere to those laws vary by area. In terms of finance, matters have improved, with a variety of initiatives (such as the creation of the Viability Gap Fund, and the India Infrastructure Finance Company Ltd) enabling greater participation of private finance in infrastructure. Foreign financial institutions and multilateral agencies can issue bonds in rupees, and private equity participation is also increasing—US\$4bn was invested in 2010, up from US\$1bn four years previously.

Indonesia

Despite recent improvements, there is still a lack of cohesion on PPP regulation and the institutional structure. Long-term financing options are still limited.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	46.1	40.6	41.7	47.9	50.3	52.8	50.0
Rank	9	=8	=8	9	8	11	=6

With some experience in infrastructure PPPs under its belt, particularly in electricity, Indonesia has recently made efforts to improve the clarity of the regulatory environment and bolster its institutional capacity. The framework for PPP projects in Indonesia is technically provided by Presidential Regulation No. 67/2005 (2005), although other general regulations and sector-specific laws also cover their development and implementation. A revision (2010) was introduced to cover risk-allocation, and competitive tendering, as well as fiscal and non-fiscal support. While improved, there is still a lack of cohesion. The agency that signs the PPP contract is responsible for monitoring it and ensuring value for money, but to date this has not been carried out particularly well. Selection and decision-making are not robust, as there is no standardised or legally binding system in place.



The National Development and Planning Agency (Bappenas) is currently acting as the PPP unit, while its PPP-dedicated P3CU Unit is still being established. Once properly operational, P3CU will promote methods of screening and prioritising projects. There is technically a division of responsibilities between the Investment Coordination Board, the Ministry of Finance, and Bappenas, in terms of transactions, government support, and project preparation, respectively, but there is no proper framework governing this. There are no strict rules governing unsolicited projects, which tend to be procured in an apparently idiosyncratic way. There is a lack of documented procedures regarding the bidding process, although it is hoped that the International Finance Corporation's (IFC) procedures for the Central Java Power Project will offer a template for the future.

Disputes are resolved on a non-standardised, case-by-case basis, as outlined in the PPP agreement included in the project contract. Projects require technical conciliation schemes, as well as guarantee agreements, to be written into their PPP agreements in order to be eligible for government guarantee. Contracts themselves are not prepared in a standardised way, and this has led to renegotiations, particularly in the water sector, with the two existing Jakarta water concessions having experienced contract-related problems. Also, although improvements have been made (such as the establishment of the Indonesia Infrastructure Guarantee Fund in 2009), risk-allocation in Indonesia is still weak. This means that there are a limited number of financially-qualified firms prepared to get involved. Financing options have also improved, with one-to-three-year arrangements generally available, but anything longer-term is accessible by only a small number of domestic firms.

Japan

New regulation should have a positive impact, but currently Japan's PPP regime lacks consistency. A tendency towards bid-rigging distorts the process, although financing is a strong point.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	63.7	50.0	66.7	61.4	57.5	83.3	75.0
Rank	6	6	=4	6	4	4	=2

Since the 1999 Act on Promotion of Private Finance Initiative (PFI), Japan has had a national-level framework for PPP projects. This Act, however, presents basic principles, rather than offering detail of project-implementation or risk-allocation, for example. An amendment to the Act was approved in April 2011 and is set to come into effect later in the year. It will have a major impact, as it provides greater scope for unsolicited proposals, widens the range of projects open to PPP, and will establish a new PFI Promotion Council. Under the current system, there are practical guidelines (implemented in 2001) that govern decision-making, risk-sharing, and VFM, as well as an expert-led PFI Committee, which delivers guidance on financial support for projects, and project appraisals. Despite this, individual ministries have actual day-to-day oversight of projects, and there is also a lack of systematisation, as 41 prefectures plan projects locally (73% of projects in 2007-08). Funding for projects is a strong point, with local banks providing both conventional financing and other options, such as project-financing, which can be very



lucrative for both major and regional banks. Long-term corporate bonds of up to 20-year maturities are also a common way of raising funds.

Most projects are delivered through competitive tender, and the Civil Code, Antimonopoly Law and the PFI Law support fair and competitive bidding. However, bid-rigging does take place, and it is rarely punished in an appropriate manner. Dispute-resolution is available through the International Centre for Settlement of Investment Disputes, or the courts, but neither is widely used owing to cumbersome procedures and a lack of resources. Judges are also likely to favour the government in disputes, with the PFI Committee itself recommending in 2007 the creation of a “neutral entity” for dispute resolution. As a general rule, PPP projects tend to be at the smaller end of the spectrum in Japan, although the project failure rate is relatively low.

Korea, Rep.

One of the region’s most advanced countries in terms of PPP. Processes are fair and transparent, and the PPP body has well-trained staff. Rotation among the civil service, however, is an issue.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	71.3	78.1	75.0	68.8	54.2	88.9	50.0
Rank	3	3	3	4	5	3	=6

Since 1999 the country has had “umbrella” PPP legislation via the Private Participation in Infrastructure Act (PPI Act). This was updated in 2005 to enable Build-Transfer-Lease (BTL) models, as well as projects in a wider variety of areas. All stages of the PPP process are overseen by the Ministry of Strategy and Finance (MOSF), with the Private Infrastructure Investment Management Centre (PIMAC) assisting in an advisory and guideline-drawing capacity. PIMAC has established consistently followed processes for VFM testing, proposal-preparation, tender-evaluation, and standard concession agreements. Any prospective project with a value of over ₩50bn (US\$48m) is subject to preliminary review, with either PIMAC (in the case of unsolicited projects) or the relevant agency (solicited projects, later reviewed by PIMAC) conducting VFM tests. The bidding process is considered fair, and there are no single-bid contracts, as invitations are issued again if only one bidder emerges. Currently, there are no PPP-specific dispute-resolution mechanisms, but private mediation firms, as well as the Office of the Ombudsman may offer mediation. The MOSF has submitted a revision to the PPP act to create a Dispute-Mediation Committee.

PIMAC staff comprises trained engineers, accountants, lawyers, and project finance experts. Unfortunately, however, MOSF staff are frequently rotated, and politicised hiring/firing is a problem; this may lead to a lack of consistency and knowledge. Regarding risk-sharing, the standard concession agreement sets out how this will be divided, with case-by-case variations. In the early days of the country’s PPP experience, the state was arguably too generous with minimum-revenue guarantees (MRG); the Incheon Airport Highway (1999) drew less than half the projected revenue, but the MRG meant that the government bore almost all the losses. Since 2005, however, MRGs have been phased out. Financial markets are relatively conducive to PPP financing, and, politically, both main parties support PPPs;



however, there is a political taboo against projects in the water industry (sewage is an exception). There are no energy projects, either. At a local level, there is some concern that smaller regional authorities lack the capacity to handle PPPs.

Kazakhstan

Kazakhstan is going in the right direction, but concerns around the bidding process remain. The government, however, appears keen to promote PPP, as indicated by the new amendment to the PPP Law and interest around new projects.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	34.3	25.0	41.7	15.7	43.3	55.6	25.0
Rank	13	=13	=8	14	14	=9	=12

PPPs are legislated for under the Law of The Republic of Kazakhstan (2006, amended 2008), and can be implemented at a national or local level in the transport, energy, and water sectors—although local authorities typically lack the human resources and financial capability to make decisions. The law does have problems, such as not allowing concession facilities to be pledged as security; it is also the case that parties must rely on other laws, such as the Civil Code of Kazakhstan, where the Law itself does not cover a particular aspect of PPP. A new amendment, however, is expected in 2011.

PPP policy, laws, and institutional arrangements are implemented at the national level, with the Commission for Concessions (which is chaired by the prime minister) choosing private partners and launching projects, and the Kazakhstan Centre for PPP evaluating the economic expediency of projects and their implementation (although oversight of projects in progress falls to the appropriate line ministry). Decision-making, however, is not systematic, and despite fair regulations on bidding, there are strong concerns about bias. Courts are also subject to bias, although PPP contracts do typically allow for international arbitration.

A presidential decree bans the PPP model from being applied to main railway lines, navigable waterways, and a number of other areas. Where projects are allowed, risk-allocation appears to be a problem. The Shar-Oskemen railway line project shows evidence of such difficulties, in which inflation and difficult terrain lead to cost-overrun, resulting in the operator defaulting on its bonds. Despite this, the government is keen to press on with PPP projects, and, as such, US\$6bn worth of PPPs are planned for Kazakhstan by 2015, including the major Ak Bulak water programme, which will result in 15 separate projects. Financing is a relatively strong area, with the Development Bank of Kazakhstan providing some long-term funding for infrastructural development, in the form of 5-20 year mezzanine, bridge and working-capital financing. There are subsidies available for low-income users; for instance, the Law on Housing Relations provides for utility bill discounts, Presidential Decree 2247 (1995) legislates for discounts on water and electricity, and local authorities often offer reduced-fare public transport for children, the elderly, and students.



Mongolia

Political weaknesses and a lack of specialist staff have given rise to less-than-ideal conditions for PPP projects. The Law on Concessions is based on international standards, but this only forms part of the regulatory framework.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	23.3	25.0	25.0	3.1	46.9	13.9	25.0
Rank	15	=13	=13	16	11	16	=12

A Law on Concessions, based on international standards (albeit with some localised points), was enacted in March 2010. A resolution came into effect on July 2010 to establish tendering procedures, which will be overseen by a Tendering Committee. However, various other acts also form part of the legal framework for concessions, such as the Constitution, the Civil Code, and the Foreign Investment Law. There is no reference to risk-allocation, although there are provisions for compensation in case of changes in the law or economic circumstances. The new law provides a framework for PPP selection and decision-making, with Article 30 offering options on government support for concessionaires, such as loan guarantees and tax credits. There is some concern, however, that in practice PPP decision-making in Mongolia is weak; regarding previous PPP projects, there is little evidence of cost-benefit analysis or benchmarking having been used.

There is a dedicated PPP Unit that oversees projects and operates under the purview of the State Property Committee, and currently maintains a list of 29 projects. As a new organisation, it is still developing experience, and, owing to a lack of resources, is unable to hire many specialists; it is, however, receiving assistance from multilateral institutions. There is also concern over the below-market pricing of road transport, power, and water, which threatens the sustainability of PPPs in such areas. Furthermore, Mongolia had no experience of PPPs in the energy, transport, and water sectors over the past decade, although the private sector has stepped in with a number of Build-Own-Operate (BOO) transport projects implemented on the back of the resources sector. On a general level, Mongolia has a history of volatile politics and inefficient administration, which may even worsen as capital flows in as part of the nation's commodities boom. Underdeveloped capital markets also mean that the possibility of long-term financing is severely limited.

Pakistan

Pakistan's PPP environment is still evolving, and, despite government support, a stable, coherent system is still some way off. Political risk is also a major concern.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	38.8	34.4	33.3	41.8	43.0	38.9	50.0
Rank	12	10	=11	11	15	=13	=6



Pakistan's PPP Law is currently awaiting ratification, and, as such, PPP projects will continue to be subject to other general and sector-specific laws. The policy framework being developed by the Infrastructure Project Development Facility (IPDF) is still a work-in-progress, and limited experience in areas such as risk-allocation mean that it will be difficult to live up to expectations. According to the PPP Policy (2010), conditions such as VFM and viability must be met when awarding projects, but it is generally acknowledged that there is a lack of consistency in the application of such criteria. Legally, the government must follow the Public Procurement Rules (2004) and treat bidders equally; however, according to the World Bank, only 50-75% of public-sector procurement contracts are awarded on the basis of open competition. A relatively small field of bidders also limits competition. Dispute-resolution usually takes place in court; the process is lengthy (although not unfavourable towards private partners), and an Alternative Dispute Resolution Centre was recently established.

The IPDF acts as the PPP unit and supports a PPP Task Force (which advises on PPP reforms and legislation) chaired by the minister of finance; these, in combination with the Debt Policy Coordination Office and the project-specific line ministries, form the basis of the new institutional arrangement. This will take some time to gel, however, and for now, there are operational problems with regard to capacity. Pakistan is, of course, a politically troubled country, and depends on "external receipts" (that is, aid, principally from the US and tied to foreign policy objectives) to remain solvent, presenting a non-payment risk. The availability of long-term infrastructure financing is also very limited, although short-term financing is available from commercial banks.

Papua New Guinea

Papua New Guinea is still in the early stages with regard to PPP. A new PPP centre and a PPP bill and regulations are due to come into effect, but it remains a country mostly lacking in even the most basic infrastructure.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	20.8	15.6	25.0	6.3	17.7	38.9	25.0
Rank	16	16	=13	15	16	=13	=12

Since 2008 there has been a PPP Taskforce, led by the Department of National Planning and Monitoring, and supported by multilateral agencies. A legal framework, consisting of a PPP bill and regulations, is expected to be submitted to parliament by the end of 2011. Guidelines for risk-allocation and control are to be issued by a PPP Centre, which is proposed as a statutory body with an advisory role, under the Treasury. Up to now, however, risk-allocation has been a problem, as evidenced by the performance of PNG Power. Currently, oversight of projects is diffused across sectors, and expertise on PPP is very limited. Likewise, as there is no umbrella framework, the PPP creation process is patchy and sector-specific. VFM testing is limited; most public organisations procure through non-public, established networks, and with no prospect of appeal.



Dispute-resolution is usually settled privately, although ADR is used in the energy sector. The courts are seen as relatively fair, and owing to the Investment Promotion Act, there is no legal discrimination against foreign firms. If the new PPP bill is passed, the overall environment for PPPs will be greatly improved; however, it is possible that it will fail, since the government bloc in parliament is composed of a coalition of many small parties. Attaining finance for projects in Papua New Guinea is also difficult, owing to underdeveloped financial markets. Infrastructure is generally very poor, with the majority of the population living in areas without even remotely adequate coverage.

Philippines

The Philippines has a long history with PPP projects, and benefits from a good legal framework. However, there is some institutional weakness, and limitations on dispute-resolution and financing.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	47.1	43.8	41.7	44.8	46.3	61.1	50.0
Rank	8	7	=8	10	13	8	=6

The Philippines has been utilising PPPs in the water sector since the late 1980s. The Republic Act 6957 (BOT Law) exists to provide guidance for PPP infrastructure projects, and has also been extended to other sectors, in line with the Medium-term Philippine Development Plan. Since the law was amended in 1994, a variety of PPP models has been possible, and, in 1998, a revision was made on procurement requirements, and competitive-bidding processes were introduced. The overall legal framework is good, but there are no specific provisions for compensation; compensation is currently dealt with by the government on a case-by-case basis. Projects are selected first via the procuring government unit, which develops an implementation plan that is then evaluated and, if approved, incorporated into a relevant development plan by the National Economic and Development Authority (NEDA). NEDA's Investment Coordination Committee is responsible for evaluation and final approval of projects and now presides over the old BOT Centre (renamed the PPP Centre). The PPP Centre does have expert staff, but high turnover has detracted from its effectiveness.

The bidding process is well structured; in each case, the procuring agency must create a Prequalification, Bids and Awards Committee (PBAC) composed of relevant experts, to invite, evaluate, and recommend bids. Dispute-resolution, however, is a weak point, with loopholes in rules leading to ambiguity; disputes are usually left to parties to solve between themselves, although arbitration and (occasionally) the courts are used. The courts themselves are not truly independent, although the situation is improving.

The current administration is also keen to attract foreign PPP partners, offering use of guarantees in some circumstances (political opposition to this does exist, however). Generally, the government's ability to support projects is limited, owing to its poor fiscal position; the bond market is also underdeveloped, reducing the possibility of finding adequate funding.



Thailand

Political instability, and an unsystematic framework, in which it is not always clear which agency is in charge, create an atmosphere of uncertainty. New regulations, however, are likely to improve matters.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	45.3	28.1	50.0	50.9	48.6	55.6	50.0
Rank	10	12	7	8	9	=9	=6

Since 1992 Thailand has had the Act of Private Participation in State Undertakings (PPSU), which offers a broad interpretation of PPP projects and extends to any relevant activity with a value of over Bt1bn (US\$34m). The Act does not deal with risk-allocation, and does not prescribe what specific procurement methods can be used, or how the project should be selected. Risk-allocation in particular can be a problem, as seen in the case of the debt-workout required to complete the BTS/Skytrain project. Institutionally, power rests with several different agencies; however, the Ministry of Finance is now drafting a new PPP Law, which, it is hoped, will provide a clear framework for the implementation and operation of relevant projects. Before this comes into effect, decision-making will likely continue to be unsystematic, and the possibility of political instability does leave some room for doubt over whether the Law will be passed in any case. A PPP taskforce now exists, but there is as yet no central PPP agency.

Competitive bidding is the only means by which a private-sector participant can be selected, and while the PPSU offers no guidance on this, guidelines issued in 2009 do the job well enough. The owner of the project must set up a committee consisting of representatives of the procuring ministry, the Ministry of Finance, the Office of the Attorney-General, and the Office of the National Economic and Social Development Board. In the case of disputes, a cabinet resolution (2009) specifies that any dispute involving the government would be resolved through the courts, not arbitration, representing a point of concern for foreign investors in particular. With regard to financing options, short-term loans with annual reviews and re-pricing are the norm. Large loans taken out under long-term fixed rates come via foreign banks. In general, the bond market in Thailand is dominated by the state, with the value of domestic corporate bonds standing at only Bt1.3bn (US\$44m).

UK

The UK offers highly sophisticated processes for the selection and management of PPP projects, a result of its deep experience in the field.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	89.7	96.9	100.0	76.7	82.3	94.4	75.0
Rank	2	2	=1	2	2	=1	=2

Under national law, the central government may enter into any PPP contract it wishes, unless otherwise restricted by an Act of Parliament; therefore, no separate PPP legislation is required at this



level. On a local level, there exists a Local Government (Contracts) Act (1997), permitting transport, waste, and energy PPP contracts. Under HM Treasury, the body Infrastructure UK has a PPP Policy Team, which contributes to policy, guidance and data collation, and provides advice for those undertaking projects. Devolution to Scotland, Wales, and Northern Ireland means that each individual country has different powers to enact legislation on PPPs, however. Administrative guidance is strong; HM Treasury, for instance, has issued VFM guidance, which must be followed in all projects. Clear guidelines for risk-allocation exist, as set out in the Standardisation of PFI Contracts (SoPC Version 4, 2007), a document that also sets out the compensation system in the case of unforeseen difficulties.

Bidding is open and fair, and usually conducted via a “competitive dialogue” process; the winner is the bidder adjudged to offer the most economically advantageous proposal, rather than simply the cheapest, in accordance with the Public Contracts Regulations (2006). Disputes are resolved either through direct consultation between the parties, or through the judgment of an expert; if these prove unsatisfactory, arbitration or the courts (which are impartial and efficient) can be used. Domestic firms are not favoured over foreign, and there has been no instance of expropriation of foreign assets. Finance is readily available, with all major banks providing structured finance for PPP projects, and a sophisticated debt market enables the issuance of bonds in both sterling and foreign currencies. Finally, although around 80% of projects are run at a local level, there is some variation between areas in capacity for implementation. But overall, there is a deep pool of expert consultants, enabling effective management of projects.

Vietnam

The government shows strong interest in developing PPP projects, as evidenced by a new pilot decree. Yet there is a general lack of experience as regards PPPs, and an underdeveloped regulatory and institutional framework.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	26.3	18.8	16.7	25.5	46.4	33.3	25.0
Rank	14	15	16	13	12	15	=12

Vietnam has limited experience with infrastructure PPPs. A 2006 BOT Law (Decree 108) was on January 15th 2011 superseded by a specific prime ministerial PPP decree. This was a pilot ruling and was intended to be replaced by new PPP guidelines or a full PPP law in 3-5 years, building upon the experience and lessons of implementing the pilot scheme. Until now, only two “true” PPP projects have been created, the Phu My 2-2 and Phu My 3 energy plants, through a bulk off-take agreement with Electricity of Vietnam (EVN). Most deals have been between state-owned enterprises (SOE) and the state, such as the Hanoi-Haiphong Expressway. According to the new decree, the Ministry of Planning and Investment (MPI) will oversee the feasibility evaluation and implementation of projects, aided by “authorised state agencies”, such as government ministries and People’s Committees. There is to be no specific PPP body, although an inter-ministerial PPP task force has been created.



Although there has recently been a strong expression of political support for the development of PPP projects, a lack of provision for risk-allocation in the new decree and weak mechanisms for arbitration for dispute resolution may be causes for concern, as the development and implementation of water, transport and energy PPP projects begins in earnest. While the decree upholds the contractual rights of parties, legislative change and the use of force majeure often over-ride such rights in Vietnam. Since the new decree came into effect, there have been no bids solicited. Furthermore, financing is an issue; while the underdeveloped capital market also limits opportunities for long-term infrastructure financing. In 2001 the MPI, in conjunction with the Ministry of Industry and Trade and the municipal governments of Hanoi and Ho Chi Minh City, was working on a list of 24 potential PPP projects for development.

Gujarat State

Arguably the best destination in India for PPP projects, Gujarat State has a well-structured system in place. The Gujarat Infrastructure Development Board (GIDB) oversees projects and provides a relatively high standard of expertise and judgment.

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	67.6	65.6	66.7	61.1	80.0	77.8	50.0
Rank	4	4	=4	7	3	5	=6

Gujarat is one of India's most advanced states in terms of PPP, with the Gujarat Infrastructure Development Act (GID Act) (1999) setting a comprehensive framework for a variety of projects, awarded through competitive bidding. The Act also makes it clear that oversight is the responsibility of the GIDB, providing clarity that the national framework does not. Risk-sharing is achieved through the use of Model Concession Agreements, with the GID Act providing for compensation for private partners where deemed appropriate. Disputes are handled under the Gujarat Public Works Contracts Disputes Arbitration Tribunal Act (1992), with either amicable conciliation or arbitration (ADR) used.

Institutionally, Gujarat has a strong system, with a clear delineation of responsibilities between the GIDB, and the line departments of procuring government agencies. The technical expertise of GIDB staff is also adjudged to be high. The GIDB provides a fair and clear mechanism for the selection of concessionaires, and, in practice, this system typically works well. There have, however, been exceptions—for instance, in the introduction of solar power PPPs. Problems exist with the judicial system, with delays in the process, as well as bureaucracy, being causes for concern. In terms of financing, Gujarat is in a strong position, having emerged as a top investment destination in India; the government is also fiscally credible, meaning that payment risk is considered very low. The Gujarat State Guarantee Redemption Fund (initiated in 2010) acts as a cushion for contingent liabilities arising out of state guarantees.



Appendix 2: Calculating the index

Indicator scores are normalised and then aggregated across categories to enable a comparison of broader concepts across countries. Normalisation rebases the raw indicator data to a common unit so that it can be aggregated.

The indicators of quantitative data where a higher value indicates greater experience with projects, a better business climate or better political environment have been normalised on the basis of:

$$x = (x - \text{Min}(x)) / (\text{Max}(x) - \text{Min}(x))$$

where $\text{Min}(x)$ and $\text{Max}(x)$ are, respectively, the lowest and highest values across the countries/index for any given indicator. The normalised value is then transformed from a 0-1 value to a 0-100 score to make it directly comparable with other indicators. This effectively means that the country with the highest raw data value will score 100, while the lowest will score 0.

Modelling and weighting the indicators and categories in the index results in scores of 0-100 for each country, where 100 represents the highest quality and performance, and 0 the lowest. The countries assessed can then be ranked according to these indices.

Qualitative data

All qualitative indicators have been scored on an integer scale. This scale ranges are 0-4 or 0-3; scores are assigned by the Economist Intelligence Unit's research team according to the scoring criteria. The integer scores are then transformed to a 0-100 score to make them comparable with the quantitative indicators in the index.

Weighting the index

At the conclusion of the concession readiness research exercise, we selected a series of default weightings deemed appropriate for the overall index calculation. These weightings are not meant to represent a final judgment on relative indicator importance. These may be changed by users at will.



Appendix 3: Detailed indicator descriptions

Legal and regulatory framework

1.1) Consistency and quality of PPP regulations: Do PPP policy frameworks and laws establish an effective and efficient process for PPP project-creation across sectors? Do regulations establish clear requirements and oversight mechanisms (for example, which government institutions are responsible for project-implementation, project-preparation, bidding, contract awards, construction and operation)? Does the policy framework provide guidelines for proper risk allocation across parties? Is there a clear system for compensating the private sector for acts of authority that change sector-specific economic conditions not foreseen during bidding? Also considers if regulations avoid open-ended compensation rights for private participants, so that the state only assumes explicitly written commercial contractual contingent liabilities.

Scoring

0= The legal framework is so cumbersome or restrictive that in practice national-level PPPs are extremely difficult to implement;

1= The legal framework allows national-level PPPs, but it is ill-defined and risk-allocation and compensation are unclear and inefficient;

2= The legal framework allows national-level concessions and also establishes general, open-ended oversight, risk-allocation and compensation rules;

3= The legal framework is generally good and coherent, addressing risk-allocation issues, while leaving some ambiguity with regard to compensation schemes and project-implementation;

4= The legal framework is comprehensive and consistent across sectors and layers of government, addresses risk-allocation and compensation issues according to strict economic principles and enables sophisticated and consistent oversight of project-implementation.

1.2) Effective PPP selection and decision-making: “Do regulations establish efficient planning frameworks so that evaluations and decisions regarding PPP project-creation and planning are systematic? Do they establish proper accounting of contingent liabilities, so that there is a clear



process for deciding on the type and extent of government financial support? Do regulators regularly apply appropriate project-evaluation and cost-benefit analysis techniques to ensure that a PPP is the optimal project-financing and service-provision option? Does the Budget Office systematically measure contingent contractual liabilities and account for delayed investment payments in a way consistent with public investment accounting?" In this indicator, we also look at past experiences and frameworks to handle unsolicited private-sector bids.

Scoring

0= Decision-making processes are not defined—they are erratic and subject to change, without accounting for liabilities;

1= Decision-making processes are defined, but are only occasionally followed, and accounting for liabilities is not well established;

2= Decision-making processes are defined and upheld, but accounting practices are not adequate;

3= Proper decision-making is both defined and used for PPP project decisions, although accounting for liabilities should be improved for more consistent decisions;

4= PPP project-selection is a consistent result of various efficiency, cost-benefit and social-evaluation considerations required by law and accompanied by rigorous accounting practices.

Note on unsolicited bids:

The rationale behind unsolicited bids is to let the private sector innovate and come up with ideas for PPPs. The bidder who innovates could get an additional 5% to 10% in the bidding process. However, allowing the private sector to replace brainstorm/planning efforts usually made by the government for project preparation can add additional costs and bias. Nor do private-sector initiatives resolve the problem of a lack of human capital in government, as the government still has to review the projects. When evaluating the processes and quality of unsolicited bidding, it is necessary to make sure these types of bids are purely to help provide new project ideas, without replacing the role of government investment and planning.

1.3) Fairness/openness of bids, contract changes: "Do regulations unfairly favour certain project bidders and operators? Do regulations require and establish competitive bidding, that is, the, use of objective criteria and transparency during the selection process, requiring review of the impartiality of costs and the publishing of necessary bidding documents, and a clear, consistent process for contract and contract-adjustment negotiations? (The need for transparency, cost-review and a consistent process applies to single bids.) Do regulations require bidding for any significant, additional work necessary? Is a system established for independent oversight of such renegotiation procedures and conditions (in the event that separate bids are not required)?"

Scoring

0= Regulations unfairly favour certain bidders over others, transparency requirements are not in place and contracts are changed in a discretionary manner;

1= Regulations introduce some bias towards particular parties, and bidding, transparency and renegotiation schemes are poor;



2= Project-bidding is fair and transparent, but renegotiations and expansions are regulated poorly;

3= Regulations generally define a fair playing field, with considerations for contract-expansion, renegotiation and adjustments;

4= Regulations establish fair and transparent bidding procedures, set limits to renegotiations and adjustments and require independent oversight of post-award procedures.

Note on single-source bidding:

Single-source bidding, although at a superficial level inherently less competitive than multiple-source bidding, is sometimes the most realistic process in countries with capacity limitations, where it may be difficult to find many bidders who are qualified.

The appropriateness, transparency and fairness of single-bidding processes have been evaluated, with the assumption that the results and rationale behind its use are the most important criteria for scoring.

1.4) Dispute-resolution mechanisms: “Are there fair and transparent dispute-resolution mechanisms for quickly resolving controversies between the state and the operator, and at low cost? Are there options for technically adequate and efficient conciliation schemes, to address complex project-design and planning issues (for example, engineering, architectural quality, land acquisition, procurement disputes, environmental impact issues), without lengthy appeals?”

Scoring

0= Dispute-resolution systems for PPPs are undefined and insufficient;

1= Dispute-resolution mechanisms operate, but these are not transparent or efficient;

2= Adequate dispute-resolution mechanisms operate, but arbitration and appeals are lengthy and complex;

3= Comprehensive, effective dispute-resolution mechanisms operate, incorporating necessary technical considerations;

4= Effective and efficient dispute-resolution mechanisms establish independent arbitration according to law and contracts, without lengthy appeals and with accompanying viable prejudicial reconciliation options.

Institutional framework

2.1) Quality of institutional design: This indicator evaluates the existence and role of various agencies necessary for PPP oversight and planning, such as a PPP board at ministerial level, a State Contracting Agency, a PPP Advisory Agency and a Regulatory Agency for enforcement of project standards. It also considers involvement of government budget and planning offices.

Scoring

0= PPP-specific agencies do not operate and relevant institutions lack accountability and independence from rent seekers;



- 1= Some agencies operate, but oversight is not comprehensive and agencies are highly prone to political distortion;
- 2= Agencies operate and are fairly technical in nature, but do not play all necessary roles;
- 3= The necessary agencies operate and generally fulfil all necessary roles for sector oversight, although their structure and roles could be improved;
- 4= The institutional design ensures satisfactory oversight and planning agencies, incorporating checks and balances for effective planning, regulation and accountability.

2.2) PPP contract and hold-up risk: “Does the judiciary enforce property rights and arbitration rulings? Does the judiciary uphold contracts related to cost-recovery? Can investors appeal against rulings by regulators, expedite contract transfer for project exit and obtain fair compensation for early termination?” Also considers whether the state has an expedite mechanism for replacing failed operators, to protect creditors’ rights.

Scoring

- 0= The judiciary poorly enforces PPP operator and investor rights and arbitration rulings, and there is no effective appeals process;
- 1= The judiciary occasionally upholds PPP operator and investor rights and arbitration rulings, but in an inefficient manner;
- 2= The judiciary usually upholds contracts, PPP operator and investor rights and arbitration rulings, but hold-ups are common;
- 3= The judiciary consistently and effectively upholds contracts and allows for appeals to regulator rulings, ensures fair compensation for early termination and transfer of contracts, although delays occur and can generate hold-up risk;
- 4= The judiciary effectively enforces PPP operator and investor rights and arbitration rulings, allowing for expedited contract transfers and ensuring that early termination occurs only in exceptional public-interest circumstances, with fair compensation to the operator and protection to creditors.

Operational maturity

3.1) Public capacity to plan and oversee PPPs: “Are public capabilities for planning, design/engineering, environmental assessment, and oversight of project service standards robust? And do government officials have technical expertise in project-financing, risk-evaluation and contract design? Do financial authorities employ proper accounting practices when considering fiscal and contingent liabilities? Do they have a reputation for designing contracts that reduce post-bid opportunism?”

Scoring: It is seen as positive if consultants and training are used, but not as a crutch or substitute for a lack of public-sector capacity.

- 0= Agencies do not have any of the necessary expertise or experience;



1= Agencies have very limited project expertise and experience;

2= Agencies have some project planning, design and financing expertise or experience and oversee service quality to a limited extent;

3= Agencies generally have the necessary comprehensive project planning, design and financing expertise and experience, exhibiting moderate service-quality oversight capacity;

4= Agencies have the necessary expertise and experience and effectively regulate the sector on a consistent basis.

3.2) Methods and criteria for awarding projects: “What is the track record of PPP agencies for using competitive bidding and objective economic factors as the primary consideration in final project-selection and contract awards (for example, qualitative assessments regarding quality and soundness of the project and quantitative tools, such as VFM and public comparators)? Are incentive-efficient schemes used for allocating projects (for example, in toll-road projects, using net present value of revenue with contract periods of variable length)?”

Scoring

0= The granting agency awards projects based on subjective considerations and does not systematically use objective, economic variables;

1= The granting agency has a poor track record, but does consider economic factors with some limits to discretion;

2= The regulator considers economic criteria to award projects, although these are not always the most efficient and appropriate ones, and subjective factors still play an important role;

3= The regulator has a good track record that could be improved (that is, it uses economic variables, but does not give these priority over other factors);

4= The regulator has an excellent track record and systematically uses economic criteria in an effective, transparent and consistent manner.

3.3) Regulators’ risk-allocation record: “Has the allocation of risk between the state and private sector been successful in recent years, so as to ensure VFM, reduce excessive contract-renegotiations and reduce the likelihood of project defaults or bail-outs? How effective has the use of guarantees and performance bonds for project risk-diversification been?”

Scoring

0= Risk-allocation is often handled inappropriately, and excessive, unnecessary renegotiations are common or likely;

1= Risk has been allocated properly only occasionally, as evidenced by a high incidence of contract-renegotiation, and hedging and insurance instruments have been used only minimally;

2= Risk is usually distributed fairly between the state and the operator, but renegotiations are still



common and financial instruments, such as insurance, guarantees and performance bonds, are occasionally used;

3= Risk has been fairly distributed, renegotiations have been moderate and parties employ some financial risk-hedging practices;

4= Risk has been consistently allocated correctly between the state and the private sector to minimise unnecessary renegotiations, with extensive and effective use of financial instruments.

3.4) Experience in electricity, transport and water projects: This indicator shows the number of transport, water and electricity concession projects in the past ten years (2000-09) in each country, as recorded by the World Bank's Private Participation in Infrastructure (PPI) database. Scoring is conducted on the basis of raw data, where a higher number of projects is better.

Note on scoring:

This score is created directly by raw data; more projects indicate more experience. Projects are counted in the World Bank PPI database if: investment commitments exceed US\$1m; private sponsors/consortia own at least 25% of the PPI contract; the project reached financial closure between 2000 and 2009; and projects provide a significant share of services (at least 20% of sales or installed capacity) to the public, directly or indirectly.

Serving the public directly involves projects with a retail component, such as electricity or water-distribution. Qualifying transport facilities are those open for public use, such as airports, railways, roads, or seaports. Indirect services include stand-alone bulk facilities (excluding power or water-treatment plants) that sell their output to a third party for distribution to the general public; transmission facilities that provide transport services between bulk and retail facilities; or railways and seaports that provide services to companies. Figures do not include projects serving a small number of clients on an exclusive basis (definition cited directly from PPI database website).

3.5) Quality of electricity, transport and water projects: This indicator shows the distress/failure rate of power, transport and water concessions and greenfield projects over the past ten years (2000-09). Please note that countries with fewer than five projects in the transport and water sectors are scored more critically than those with five or more (see scoring guide below for details).

Scoring

0= For countries with five or more projects in the PPI database, this indicates a project failure/distress rate above 20%. For countries with fewer than five projects, this indicates a failure/distress rate of 25% or above;

1= For countries with five or more projects in the PPI database, this indicates a project failure/distress rate between 14% and 20%. For countries with fewer than five water and transport projects, this indicates a 0% failure/distress rate;

2= Failure/distress rate between 8% and 14%;

3= Failure/distress rate between 3% and 8%;



4= Failure/distress rate between 0% and 3%.

Investment climate

4.1) Political distortion: Evaluates the level of political distortion affecting the country's private sector. Each country's score is a weighted average of the Economist Intelligence Unit's political stability and government policy effectiveness risk scores, and the Transparency International Corruption Perceptions index. Possible scores range from 0 to 100, where 0=worst and 100=best.

4.2) Business environment: Evaluates the quality of the general business environment for infrastructure projects. Each country's score is a weighted average of the Economist Intelligence Unit's market opportunities and macroeconomic risk scores, and the goods and market efficiency ranking of the World Economic Forum Global Competitiveness Index. Possible scores range from 0 to 100, where 0=worst and 100=best.

4.3) Political will: This indicator evaluates the level of political consensus, or will, to engage private parties in concessions (PPPs) and to provide favourable implementation frameworks across the water/sanitation, electricity and transport sectors.

Scoring

0= The government has consistently expressed a lack of interest or inconsistent intentions in engaging private participation through concessions or improving frameworks. Conditions for private investment are hostile;

1= The government has shown some reluctance to engage private participation through concessions (PPPs) and provide favourable frameworks, either because of disagreement among or explicit opposition from significant political groupings;

2= There is political consensus surrounding the need to engage private participation through concessions (PPPs) and provide favourable frameworks, although implementation is slow; 3= There is political consensus to maintain favourable frameworks and to be pro-active with concession projects, where appropriate, and the likelihood of major political delays is low.

Financial facilities

5.1) Government payment risk: "Does the government regularly fulfil obligations for PPP contracts or use liquidity-guarantee schemes to reduce non-payment risk?" Also considers the Economist Intelligence Unit's sovereign debt risk ratings and whether countries have had active partnerships with the World Bank's Multilateral Investment Guarantee agency during the past five years to insure electricity, transport or water projects.

Scoring

0= The government struggles to fulfil obligations to concessionaires;

1= The government occasionally fulfils obligations;



2= The government usually fulfils obligations;

3= The government usually fulfils obligations, and provides some minimal guarantees to investors;

4=The government has an excellent track record of fulfilling obligations, and provides strong guarantees to investors.

Please note: In certain cases where project- or sector-specific information was not obtainable, scoring considers Economist Intelligence Unit sovereign credit risk ratings. For these instances, scoring employs the following guidelines: 0 = rating of CCC and below; 1= B rating; 2= BB rating; 3 = BBB and A rating; and 4 = AA or AAA rating.

5.2) Capital market for private infrastructure finance: “How readily available and reliable are long-term debt instruments for infrastructure financing? Is there a developed insurance and pension market with useful products for infrastructure risk-reduction? Are interest-rate, exchange-rate hedging instruments available?”

Scoring

0= The markets for finance and risk instruments are underdeveloped or non-existent, and only foreign sources provide project-funding;

1= The market for local finance is slowly developing, although most finance comes from international sources and risk-hedging instruments that are not robust;

2= Some finance and risk instruments exist, although financing still mainly comes from foreign and multilateral organisations;

3=The domestic market presents a large, reliable financing market, but risk instruments are still developing in size and complexity;

4= There is a deep, liquid finance market locally, as well as a reliable and large local market for hedging instruments.

5.3) Marketable debt: “Is there a liquid, deep local-currency-denominated, fixed-rate, medium-term (five yrs +) bond market in marketable debt (that is, debt that is traded freely)?”

Scoring

0= There is no securities market for fixed-rate financing of over one year;

1= There is a government securities market in place, but for short maturities only;

2= The government is fostering a medium-term market and it should be in place soon;

3= There is a medium-term (five yrs +) debt market, but only for public-sector (government bond) issuers;

4= There is a medium-term (five yrs +) debt market for both public- and private-sector issuers.

5.4) Government support and affordability for low-income users: “Does the government provide subsidies that allow low-income users better access to electricity, water and transport services?”



Scoring: Please note that, currently, the index considers a targeted, direct subsidy to be the preferable form of government support for low-income users. Cross-subsidy is second best.

0= The government does not subsidise the electricity, water or transport sectors, or has done so in an extremely distorting manner;

1= The government does not subsidise the electricity, water or transport sectors, or has done so in a moderately distorting manner;

2= The government occasionally provides subsidies for improved access for the poor in electricity, water or transport, but these are infrequent or applied only in certain cases;

3= The government usually provides satisfactory subsidies for low-income users, but this can vary by sector and project;

4= Subsidies are common, reliable and effectively target low-income users.

Sub-national adjustment

6.1) Sub-national adjustment factor: This indicator evaluates whether infrastructure concessions can be carried out at a regional, state or municipal level, and the relative success and consistency of these frameworks.

Scoring

0= The legal framework does not allow regional or municipal entities to concession public works, or in practice the requirements are extremely cumbersome;

1= The legal framework allows regional and municipal entities to concession public works, but technical capacity or political will is lacking;

2= A few successful examples of regional or municipal concessions exist, but capacity and projects at this level across the country are generally weak;

3= A significant concessions programme has been developed at a municipal or regional level, with good implementation-capacity and institutional design;

4= An important and diverse (in terms of sectors and locations) concession programme has been developed at the municipal or regional level, and it benefits from a homogeneous framework, good local implementation-capacity and institutional design.



Appendix 4: Methodology and sources

Methodology

The methodology for this benchmarking study was created by the Economist Intelligence Unit research team for the 2009 Infrascopes for Latin America and the Caribbean, which was devised in consultation with the Multilateral Investment Fund (MIF, a member of the Inter-American Development Bank Group), the World Bank Institute, the Asian Development Bank Institute (under the Multilateral Public-Private Partnership for Infrastructure Capacity Building (MP3IC) Initiative), regional sector experts of global PPP-implementing agencies and a wider group of sector stakeholders. Final editorial control for the index remained with the Economist Intelligence Unit. This indicator list was again revised in early 2010 after extensive peer review, with an eye to maintaining consistency across years, while increasing index rigour, relevance and global applicability. To ensure global comparability, the framework has been applied to the Asia-Pacific region. Drawing upon the peer-review meeting, and in collaboration with regional and independent country specialists, adjustments were made to capture distinctive features of the legal environment and various practices in the region.

The Economist Intelligence Unit research team gathered data for the index from the following sources:

- Interviews and/or questionnaires from sector experts, consultants and government officials, including Asian Development Bank officers
- Legal and regulatory texts
- Economist Intelligence Unit country risk ratings and country reports
- Scholarly studies
- Websites of government authorities
- Local and international news media reports
- Asian Development Bank documentation and country reports



- The World Bank's Private Participation in Infrastructure database
- The World Bank's Multilateral Investment Guarantee Agency project database
- Transparency International
- World Economic Forum

Qualitative scores were assigned to each country for each indicator, based on an assessment of relevant information from three main sources: legal and regulatory texts; interviews and questionnaires; and infrastructure rankings. Secondary reports were also referenced on a country-specific basis. For the financial facilities category, a number of sources were considered, including the Economist Intelligence Unit's sovereign debt risk ratings, marketable debt risk ratings, and Country Finance and Country Commerce reports.

Acknowledgements

Over 60 in-depth telephone interviews were conducted with policymakers and country infrastructure experts from multilateral or consulting institutions. Owing to the sensitive nature of the content of this report, we will not disclose the names of individuals.

We would like to express our thanks to participants for their insights, and to all of the infrastructure and country experts consulted for their advice and inputs.

Special thanks to Anand Chiplunkar, Aura Abon, Aziz Haydarov, Elaine Glennie, Grant Hauber, Januar Laude, Jon Lindberg, Peri Ravi, Rachna Gupta and Roland Pladet from the Asian Development Bank headquarters and to the ADB country officers and experts who provided comments and feedback.

Key contacts

- Manisha Mirchandani is the project manager for the Asia Infrascope. She works in the Custom Research division of the Economist Intelligence Unit. She can be reached at manishamirchandani@economist.com
- Vanesa Sanchez is the project manager for the Latin America and Caribbean Infrascope initiative, and part of the research team for this study. She works in the Custom Research division of the Economist Intelligence Unit. She can be reached on vanesasanchez@economist.com
- Manoj Vohra is the director of the Custom Research division of the Economist Intelligence Unit for Asia Pacific. He is the project director. He can be reached at manojvohra@economist.com
- Dr Michael Regan is a professor of Infrastructure at Bond University in Queensland, Australia. He was a project adviser and a consultant for this study, and can be reached at mregan@bond.edu.au



- Anand Chiplunkar is Principal Infrastructure Specialist (PPP), Sustainable Infrastructure Division of the Regional and Sustainable Development Department at the Asian Development Bank. He can be reached at achiplunkar@adb.org

Concept definitions

In this study, PPP refers specifically to projects that involve a long-term contract between a public-sector body and a private-sector entity for the design, construction (or upgrading), operation and maintenance of public infrastructure. Finance is usually provided by, and significant construction, operation and maintenance risks are transferred to, the private-sector entity, which also bears either availability or demand risk. However, the public-sector body remains responsible for policy oversight and regulation; and the infrastructure generally reverts to public-sector control at the end of the contract term.

Acts of authority: unilateral actions by the government to change the economic specifications and terms of a contract.

Collusion risk: the risk that private-sector bidders or operators will create agreements among themselves that do not benefit the sustainability of a project or the government-financing portion.

Concessionaire: holder of a concession, where a private firm obtains the right from government to provide a service.

Contingent liabilities: a potential liability on the balance sheet which is dependent on the outcome of future events.

Economic criteria: criteria for selecting PPP projects based on economic factors, such as the net present value of a project's revenue, the amount of subsidies requested by bidders or payments offered.

Equity arbitration: a more informal arbitration regime, where parties attempt to resolve disputes based on fairness and equity considerations, rather than using a strict application of the law.

Financial or economic equilibrium: an equation that relates costs, revenue and return on investment for private-sector participants. The equilibrium principle is specified in project contracts and makes important assumptions about demand levels, proper service levels, a project's financial stability (including transfer payments to the government) and project investment costs.

Public comparator: a method of evaluating PPP projects where the costs of contracting infrastructure projects through full public provision and financing are used as a benchmark to assess the VFM benefits offered by PPP alternatives.

Risk allocation: distribution of proportional risk to parties in a contract.

Single-source bidding: contract awarded by way of soliciting and negotiating with one entity. Also known as sole-source bidding.

Swiss Challenge: a process by which third parties are invited to match or exceed the offer made by the original proponent of an unsolicited proposal.

Technical criteria: criteria for selecting PPP projects based on engineering, architectural design and technological aspects.

Unsolicited proposals: a proposal submitted to a procuring agency on the initiative of the proponent, and not in response to any formal or informal request for proposals or quotations.



Value for money (VFM) analysis: an analysis that compares the benefits of contracting infrastructure projects through PPP with the benefits of traditional public-sector procurement and investment.

Bibliography of key sources

Alfen, Hans Wilhelm (ed.), "Public-Private Partnership in Infrastructural development, Case Studies from Asia and Europe", Weimar 2009, EAP3N

Deloitte Research, "Closing the Infrastructure Gap: The Role of Public-Private Partnerships", 2009
Deloitte Development.

Economist Intelligence Unit, London, UK, *Country Forecast, Asia and Australasia*, Regional overview.

Economist Intelligence Unit, New York, NY, *Country Finance and Country Commerce* annual reports.

Economist Intelligence Unit, Risk Briefing service.

KPMG, "Building for prosperity, Exploring the prospects for Public Private Partnerships in Asia-Pacific",
Hong Kong, March 2007, KPMG International.

OECD, *OECD Investment Policy Reviews*.

PEI Asia, "A class of its own", Infrastructure report, December 2010 /January 2011, Issue 46.

Sharan, Diwesh; Lohani, Bindu N. and Kawai, Masahiro, "ADB's Infrastructure Operations - Responding to Client Needs", the Philippines, March 2007, Asian Development Bank.

Tadimalla, Sri Kumar, World Bank, "Overview of PPP Experience in South Asia: Focus on India PPP Story",
presentation, 2010.

Transparency International, *Corruption Perceptions Index 2010*.

World Economic Forum, Global Competitiveness Index 2011.

World Bank, *Doing Business Index 2010*.

World Bank, *Quarterly Economic Updates 2010-2011*.

Whilst every effort has been taken to verify the accuracy of this information, neither The Economist Intelligence Unit Ltd. nor the sponsor of this report can accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out herein.

All intellectual property rights in and to the Infrascopes benchmarking tool and its methodology are owned exclusively by The Economist Intelligence Unit Ltd. The findings of the Infrascopes benchmarking tool, in the context of this research for the Asia-Pacific region, are jointly owned by The Economist Intelligence Unit Ltd., and Asian Development Bank.

LONDON
26 Red Lion Square
London
WC1R 4HQ
United Kingdom
Tel: (44.20) 7576 8000
Fax: (44.20) 7576 8500
E-mail: london@eiu.com

NEW YORK
750 Third Avenue
5th Floor
New York, NY 10017, US
Tel: (1.212) 554 0600
Fax: (1.212) 586 0248
E-mail: newyork@eiu.com

HONG KONG
6001, Central Plaza
18 Harbour Road
Wanchai
Hong Kong
Tel: (852) 2585 3888
Fax: (852) 2802 7638
E-mail: hongkong@eiu.com

GENEVA
Boulevard des Tranchées 16
1206 Geneva
Switzerland
Tel: (41) 22 566 2470
Fax: (41) 22 346 9347
E-mail: geneva@eiu.com