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Promoting effective public-private partnerships for infrastructure development

The 2030 Agenda for Sustainable Development puts infrastructure development at its core with at least 12 out of the 17 Sustainable Development Goals (SDGs) having a direct infrastructure link. To achieve these development objectives, governments are looking for appropriate financing strategies and involving the private sector is often considered by policy makers as a promising option to overcome resource constraints and improve public service delivery.

Recognizing this potential, countries have included *"promoting effective public-private partnerships"* as one of the means of implementation for sustainable development (SDG-17). Furthermore the Addis Ababa Action Agenda (AAAA) on Financing for Development confirmed *"that both public and private investments have key roles to play in infrastructure financing, including through … mechanisms such as public-private partnerships"*.

Against this background, this policy brief outlines key infrastructure challenges in the Asia-Pacific region before exploring the benefits and limitation of PPP arrangements as well as the policy actions that are required for making the most of this mechanism.

Infrastructure challenges

In this brief we define infrastructure as physical structures in transportation, energy, communications, and water and sanitation systems. For these infrastructure systems, the challenges in the Asia-Pacific region are multiple.

First, the region is facing **soaring demand** for more infrastructure development to support economic growth. A report from McKinsey Global Institute assessed that yearly infrastructure needs in Asia amount to around $1.6 trillion on average for the period 2016-2030, which is 60 per cent higher than yearly historical spending during the previous 15 years.[1] If current investment rates remain unchanged, several countries in the region will face significant infrastructure gaps. For example, Indonesia and India could fall short of respectively $1.3 trillion and $500 billion of cumulative investments by 2030 according to the same report.

Second, infrastructure development has to be more **inclusive** to leave no one behind. Around half a billion people in the region still had no access to electricity in 2013. Meanwhile, 1 in every 10 rural residents lived without access to safe drinking water in 2015. Unbalanced development of ICT infrastructure in the region also creates a digital divide with millions of people excluded from opportunities related to modern technologies.[2,3]

Third, infrastructure development must become **climate-friendly**. Since Asia and the Pacific is responsible for more than half of the global greenhouse gas emissions, the future of the region depends on finding sustainable solutions in energy and transport, which currently account for the largest share of CO2 emissions. It is particularly important as the urban population in Asia and the Pacific is expected to grow by 0.7 million people every week until 2050 and this rapid urbanization will aggravate the prevailing congestion and air pollution in cities unless more sustainable infrastructure systems are developed.[4,5]

Fourth, infrastructure development ought to be more **resilient** given that Asia and the Pacific is the most disaster-prone region in the world with 1,625 disasters during the last decade - over 40 per cent of the globally reported events. Building resilient infrastructure can reduce the impacts of these events by ensuring that essential services remain operational during and after disasters and limiting reconstruction efforts.[6]

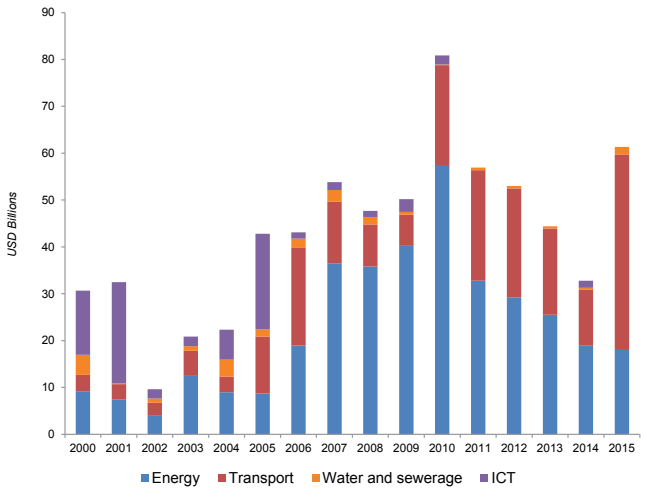
These infrastructure challenges call for mobilizing more resources, including from the private sector and for seeking better ways of delivering infrastructure projects.

Benefits of PPP

Public-Private Partnerships (PPPs) have been seen as a way to circumvent limited public budgets and borrowing capacity through the mobilization of private finance. In Asian developing countries, private companies have invested around $650 billion over the last 15 years for energy (54 per cent), transport (33 per cent), telecommunication (10 per cent) and water (3 per cent) infrastructure (See Figures 1 and 2).[7]

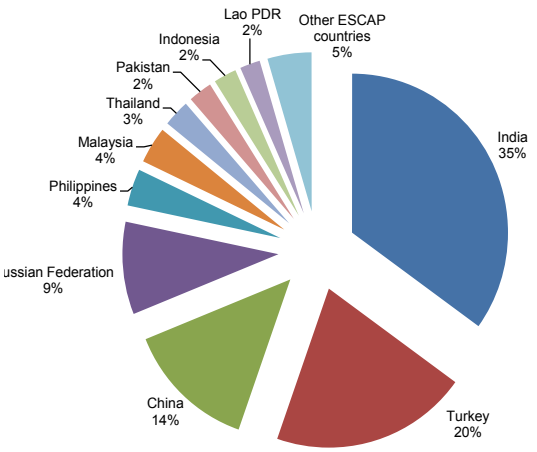
Whereas PPPs cannot fill all infrastructure gaps, this mechanism may contribute to a significant share of infrastructure investments. For example, a database cross-comparison suggests that the private sector has financed roughly 50 per cent of investments in power generation assets in South-East Asia over the period 2000-2013. Likewise, in transport, the private sector contribution reached an impressive 34 per cent of total investment in roads and highways in India in the 11th Plan (2007-2012).[8]

Figure 1. PPP projects in Asia and the Pacific



Source: World Bank, Private participation in infrastructure database. Available from:https://ppi.worldbank.org/.

Figure 2. Geographical distribution of PPP projects



Source: Ibid.

PPPs, however, are not only about financing. With greater experience in PPPs, many governments in the region have become aware of other benefits that could make PPPs an attractive option, such as:

- **Efficiency gains**: Taking advantage of private sector efficiency may result in improved project delivery, operation and management, as well as access to technologies which might be out of the reach of the public sector. To achieve these efficiency gains, the key is to tie remuneration to performance through well-designed incentive structures that align private and public interests (for instance by linking payments to Key Performance Indicators (KPI). To reinforce the sustainability of infrastructure development, these KPIs should include social and environment considerations.

- **Long-term solution**: Typical infrastructure problems include poor construction quality and inadequate maintenance. PPPs can offer a solution to these issues. In a PPP project, sufficient resources are allocated to durable construction and long-term maintenance because the private partner profit is tied to asset performance throughout the length of the contract.

- **Life-cycle cost**: PPP structures also create incentives to reduce the life-cycle costs of infrastructure assets as the private sector has to integrate maintenance cost implications into the overall project design and select the cheapest alternative over the lifetime of the asset while finding innovative solutions to reduce the cost of infrastructure services.

- **Risk transfer**: By transferring risk to the private sector (such as design and construction risks), government finances are also protected against the potential cost overruns that are often considerable in public infrastructure projects. Empirical studies have shown that approximately 86 percent of public infrastructure projects exceed their initial budgets by a considerable margin— 28 percent on average.[9] Furthermore, PPP projects present stronger incentives to deliver projects on time, as the private sector is not remunerated until construction is completed.

The realization of these benefits nevertheless necessitate that: the private sector is given space to innovate and incentivized to improve service delivery; the risks are properly allocated between the public and private partners; the private partner is selected through open and fair market competition; and the performance of the private partner is carefully monitored and penalty clauses for non-delivery of services are enforced.

Limitations of PPP

Despite the benefits presented above, countries have also experienced challenges in partnering with the private sector for infrastructure delivery. For instance, public authorities have realized that PPP projects have **significant monetary implications**. Indeed, using a PPP structure does not mean that public infrastructure services will be provided "for free". To be developed as a PPP, a project must have a commercially-viable business case for the private partner. This means that users and/or tax payers have typically to pay for the project to be delivered profitably by a private company.

PPP contracts can also entail long-term budgetary commitments and **contingent liabilities** such as those related to public guarantees. Therefore, care is needed to ensure that PPP contracts are affordable to the public purse over their entire period and do not threaten fiscal stability in the long run.

PPP projects are also complex and might require skills not available internally. Therefore stepping-up **capacity building** efforts is required to ensure that PPPs become an effective instrument for delivering infrastructure services. This will also reduce the expertise asymmetry that exists between the private and public sectors when PPP contracts are negotiated.

To address the capacity gap, governments also often need consultants for preparing and tendering PPP projects. Although this ensures properly prepared projects, it also involves significant expenses. In addition, the private cost of capital is usually more expensive than public financing since the private sector requires returns commensurate to the risk taken, so the project delivered as a PPP needs to create sufficient additional value to offset the **higher financing and transaction costs.**

PPPs are also prone to **public resistance** as the public opinion might be easily convinced that they are too generous to the private partner. Therefore it is important to clearly explain how people benefit from PPP projects and undertake sufficient stakeholder consultations. This also calls for taking measures to mitigate the risk of corruption and to ensure a fair, competitive and transparent selection process that will ultimately bring costs down.[10]

While developing their policies, governments have to keep in mind that PPP solutions are suitable for only a limited share of projects. In this respect, it is worth noting that PPPs have particularly been a promising avenue in revenue generating sectors, such as energy or transport, where user charges can be used to repay the investment.

Country specificities also influence the volume of viable PPP projects. A relatively low population base or the lack of private actors' capacity might make deals difficult in some countries although the same deals could be feasible in others. Also the size of the private sector might be a limiting factor as there might be only a limited pool of companies capable of embarking on these long-term projects.

ESCAP long-lasting policy and technical support to PPP

ESCAP has been supporting governments in Asia-Pacific for many years in implementing measures to effectively engage the private sector in infrastructure development:

- Capacity building: To bridge the capacity gap between the public and private sector, ESCAP has organized national and regional workshops over the years and developed an online PPP training programme, which has been accessed approximately 30,000 times over the last year.
- Policy advocacy: PPP projects cannot be developed without strong political support and a broad understanding of what can or cannot be achieved via the PPP approach. The ESCAP secretariat has purposefully supported raising political awareness through the organization of high-level meetings and ministerial conferences on the matter. Recently, ESCAP has supported selected countries with the establishment of effective PPP policy frameworks.
- Knowledge sharing: Different research products have been produced by ESCAP to guide member countries with their PPP agenda. These include a guidebook on PPPs in infrastructure, case studies and online guiding materials such as the ESCAP PPP country readiness assessment and the Value-for-Money e toolkits.

Policy actions

While some countries have been successful in pursuing the PPP route, others have faced difficulties in attracting private interest. Although several factors might explain these differences, an important one is the active role played by some Governments to introduce a set of policies, which can ultimately create an “enabling environment” for PPP development. Based on international experience, the said enabling environment can be characterised by:

- a clear policy orientation creating a stable and long-term vision while offering perspective as regards the flow of projects to be developed under a PPP mechanism;
- a legal and regulatory framework providing clarity for government actions and assurance for the private sector that its legitimate right will be adequately protected;
- a supportive institutional arrangement whereby internal capacity is built and responsibilities are assigned for promoting, implementing and managing PPP projects;
- a body of financial support measures that will make projects sufficiently profitable and safe for attracting private interests while preserving fiscal stability;

To make the most of the PPP mechanism, Governments therefore need to take measures to enhance their PPP enabling environment while building internal capacity. The latter is particularly important as a strong public partner is needed to structure projects that will achieve development impact, allocate risks adequately and improve services overall (i.e. quality, coverage and access).

Finally, people and the planet have to be placed at the forefront of these partnerships to ensure their contribution to the Sustainable Development Agenda. This means that future infrastructure investments have to be prioritized based on their environmental, social and economic sustainability and that the private sector needs to be incentivized in finding cost-efficient solutions to solve sustainable development challenges. As such, involving the private sector can help

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[1] See McKinsey Global Institute (2016), *Bridging Global Infrastructure Gaps*. Available from www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights.

[2] See International Energy Agency, World enery outlook, Energy access database. Available from www.worldenergyoutlook.org/resources/energydevelopment/energyaccessdatabase.

[3] See ESCAP, *Statistical Yearbook for Asia and the Pacific 2015: Did you Know?* - Facts and Trends at the Outset of the 2030 Development Agenda (Bangkok, 2015). Available from www.unescap.org/stat/data.

[4] ESCAP "Asia Pacific: response to climate change", 10 December 2015. Available from http://www.unescap.org/op-ed/asia-pacific-response-climate-change.

[5] United Nations, *World Urbanization Prospects: The 2014 Revision - Highlights* (New York, 2014). Available from https://esa.un.org/unpd/wup/Publications/Files/WUP2014-Highlights.pdf.

[6] See ESCAP "Asia Pacific disaster report 2015 - disasters without borders", 27 October 2015. Available from www.unescap.org/news/asia-pacific-disaster-report-2015-%E2%80%93-disasters-without-borders.

[7] For historical investment data see annexes of International Energy Agency, *World Investment Outlook* (Paris, 2014). Available from www.iea.org/publications/freepublications/publication/WEIO2014.pdf. For private investment see World Bank, Private participation in infrastructure database. Available from https://ppi.worldbank.org.

[8] See PwC, *The Road Ahead: Highways PPP in India* (New Delhi 2012). Available from www.pwc.in/assets/pdfs/publications-2012/the-road-ahead-highways-ppp.pdf.

[9] Flyvberg, Holm, and Buhl (2002). Underestimating costs in public works project: error or lie? *Journal of the American Planning Association*, vol. 68, No. 3 (Summer), pp. 279-295.

[10] Even for a country like the Republic of Korea, around 70 per cent of PPP projects were awarded to a sole bidder, with only about 30 per cent involving more than one bidder . See Jay-Hyung Kim and others, *Public-Private Partnership Infrastructure Projects: Case Studies from the Republic of Korea*, vol. 3, Institutional Arrangements and Performance (Manila, IDB, 2011).

[11] These countries include Bhutan, Cambodia, Lao People's Democratic Republic and Myanmar.