



PPIAF
Enabling Infrastructure Investment

INFRASTRUCTURE REGULATION: DEVELOPING COUNTRIES

*Satheesh Sundararajan (Senior Infrastructure Specialist),
Sara Ahmed (Knowledge Management Consultant)*



CONTEXT

Establishing an effective, sustainable and independent regulatory system for infrastructure services is a long-term process. The goal of a regulatory system is to protect consumers and investors through transparent and predictable decision-making, focusing on economic regulation. A well-functioning regulatory system promotes operational efficiency, offers safeguards for investments, and protects consumers from monopoly positions, while offering better service quality. Overall, regulatory systems play an important role and help balance improved infrastructure assets and services.

In the context of developing countries, establishing a well-functioning regulatory system could take several years. To address an infrastructure gap of US \$1 trillion¹ and continuous demands for infrastructure, many developing countries are increasingly relying on private sector investments. Although PPPs are just one way in which infrastructure services can be delivered, they are increasingly being used, as demonstrated by the Private Participation in Infrastructure (PPI) Database². By nature, PPPs are long-term contracts and locking in these contractual positions without adequate regulatory support runs the risk of creating perverse incentives for monopolies. To avoid such monopoly risks, the design and implementation of PPP frameworks is critical. Interestingly, PPPs can also be seen as an interim solution to bridge various gaps in establishing a regulatory system for a specific sector.

REGULATION IN DEVELOPING COUNTRIES: CHALLENGES

The available literature covers the benefits of having independent regulation within the specific political, legal and institutional contexts of a given country. The *Handbook for Evaluating Infrastructure Regulatory Systems* notes that the usefulness of independent regulators depends on several assumptions about a country's legal and political framework, including separation of powers between legal and executive branches and rule of law³. Many developing countries face gaps between their legal frameworks and regulations in practice, which weakens the functioning of their regulatory system.

A weak or lack of a well-functioning regulatory system often opens the door to political influence on tariffs without adhering to transparent processes and objective economic principles. This can result in poor cost recovery, lack of investments in maintenance and new assets; and ultimately poor access to basic infrastructure services.

This issue brief addresses some unique issues that developing countries face when they are developing a PPP framework in the context of a weak or non-existent regulatory system, but want to gradually and successfully achieve both arrangements. PPIAF focuses on how PPP framework and sector-specific regulatory systems mature at various levels and emphasizes the need for coordination between the two arrangements in successful delivery of infrastructure through private-sector participation.

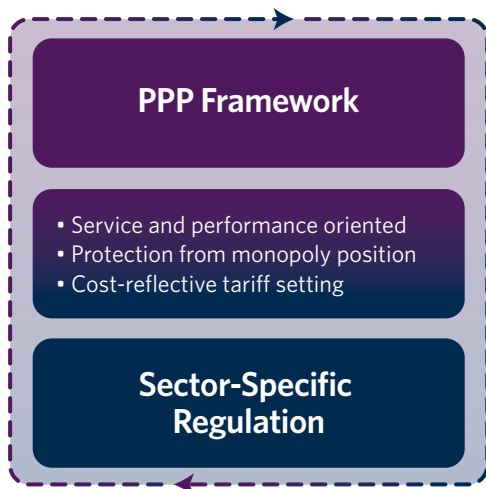
REGULATIONS & PPP FRAMEWORKS- A CODEPENDENT RELATIONSHIP?

While the objectives are different, some of the issues faced by sector regulatory systems and PPPs frameworks are similar. The issues include asset creation (though not strictly a requirement for PPPs), monopoly nature of service provision, tariff setting, controlling service quality, performance monitoring, governance and transparency. Sector regulation provides a strategic input into the PPP frameworks. If sector regulation is well functioning, long-term PPP contracts should make reference to such regulation to address these issues. Similarly, a PPP framework provides a platform for the public and private sectors to achieve, amidst other requirements, the regulatory objectives.

In order to be successful and not exacerbate a potential monopoly situation when locking in a long-term contract, PPPs must be very vigilant of the existing sector-specific regulation. For example, in Latin America, due to the lack of sector regulation, many water-treatment contracts have ended in re-negotiation, cancellation, or complete failure, as indicated by the World Bank study, *Renegotiation of Concession Contracts in Latin America*. This study explains why the ability of the regulatory system to protect operators from government intervention for political aims, to protect governments from the private sector's opportunistic behavior, and to absorb economic shocks, can significantly affect the sector performance and the incidence of renegotiation⁴.

In many developed and developing countries it takes a significant amount of time to establish and sustain a well-functioning regulatory system and PPP frameworks. But PPPs are increasingly seen as an important delivery model, albeit in a "work-in-progress" regulatory system. On their own, PPPs run the regulatory risk of creating an environment conducive to a monopoly situation. Such sub-optimal approaches require PPPs and regulatory systems to support the gaps filled by each other, and to have some type of "codependent relationship."

Relationship between PPP Framework and Sector Specific Regulation



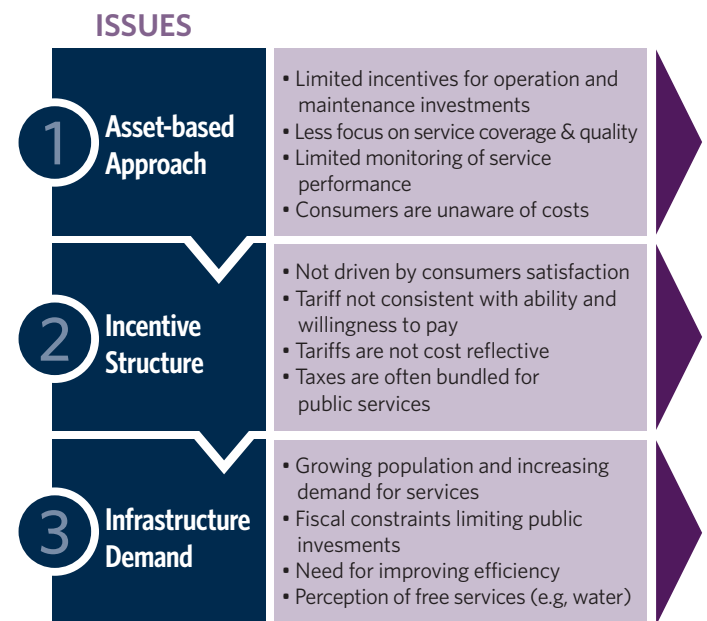
The question is, if sector specific regulation is in place, how does the PPP arrangement impact and align with it? If sector-specific regulation is not in place but PPPs are developing, how can the PPP arrangement represent that function and what are the additional institutional and legislative requirements?

MATURITY OF REGULATION IN INFRASTRUCTURE SERVICES

As part of sector reform, a regulatory system sets out key principles to shift infrastructure services from pure public provision to private provision. The nature and duration of the shift depends on the legal and institutional structure of a given country. Similarly, PPP frameworks create a platform for the private sector to provide public services. The PPP framework also takes time to mature and may not be fully synchronized with the development of a regulatory system.

Infrastructure services have predominantly been a public provision in many countries, whether developing or developed. Some of the inherent weaknesses that motivate governments to shift to limited or full private provision of infrastructure services are listed below. Depending on the objective of sector reform, the shift from public provision can be either to quasi-public or directly to private provision.

Regulatory Issues Under Public-Provision



MOVING FROM PUBLIC-PROVISIONED SERVICES TO QUASI-PUBLIC

An SOE (state-owned enterprise) is a regulated entity typically created by governments with a monopoly vision to offer specific services to a country's citizens. The shift from public provisioned services to quasi-public can also occur through a corporatized utility. Although in theory such SOEs have their own balance sheets and expect to be sustainable, the notion of implicit guarantees from the government serves as a cushion to protect these entities from their failures. Such implicit guarantees may also create moral hazard for SOEs in conducting their business in an optimal way, and dilute the role of the regulator in setting cost-reflective tariffs and enforcing the performance of SOEs. Thus, if the failure of an SOE due to its own business conduct is protected by implicit guarantees of government, the regulatory function is not serving its objective. It is important to note that the governance arrangement of an SOE is an important factor for its sustainability. For further details on SOEs, refer to the Body of Knowledge on Infrastructure Regulation⁵.

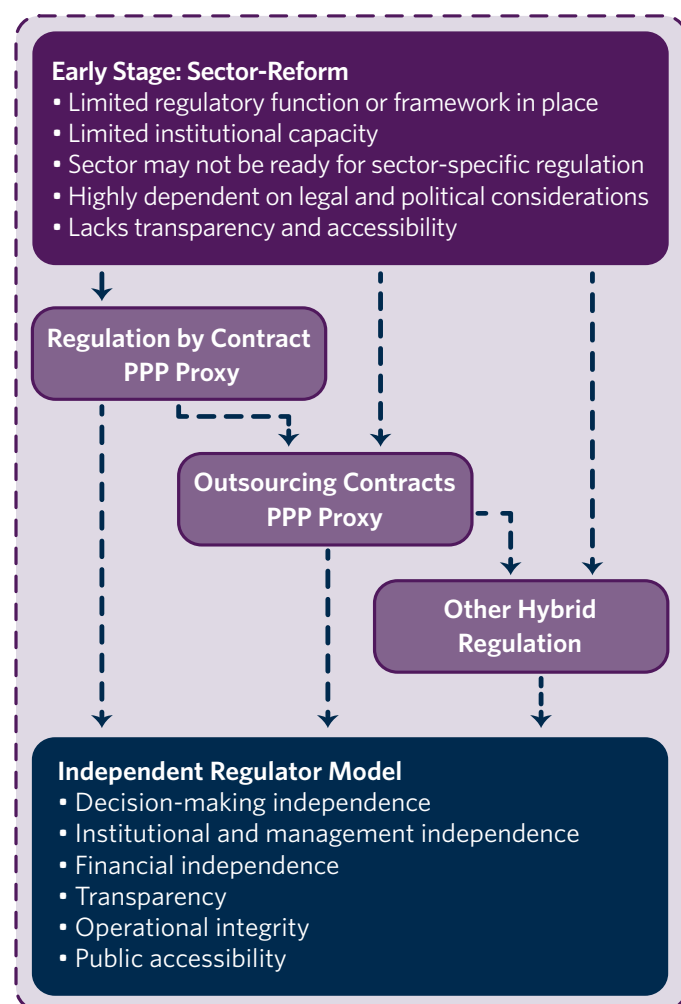
MOVING FROM PURE PUBLIC OR QUASI-PUBLIC TO PRIVATE PROVISION OF SERVICES

The exact role of the private sector in the provision of infrastructure services can be defined across a spectrum of opportunities ranging from pure privatization to management contract, leases and joint ventures. Similar to SOEs, the private sector is expected to financially sustain a project on its own based on revenue from the tariff it receives, but without any guarantee from the government. Thereby the private sector is fully dependent on the regulator's independence and ability to set cost-reflective tariffs for its financial sustainability. With a limited or non-functioning regulatory system, PPP contracts can indeed fill those gaps, for specific projects or programs, subject to having sufficient institutional capacity in place. For example, toll-road PPPs prescribe toll-adjustment formulas and service performance levels in long-term contracts.

TRANSITION TOWARDS INDEPENDENT REGULATION

As mentioned before, such sustained independent regulation can take significant time to establish. Until then the regulatory system may have to rely on other transitional forms. A transitional solution, such as regulation by contract or outsourcing regulatory functions, may be needed for various reasons⁵. For example, a country may be unable to implement the independent regulator model because it lacks capacity, commitment, or both. The risk of doing too much too soon may result in a regulatory system failure, and the perception of failure may inhibit the overall sector reform.

Illustrative Stages of Regulation Maturity



BRIDGING THE GAP: HYBRID REGULATORY SYSTEMS

To bridge the gap between the legal framework and regulation in practice, hybrid regulatory systems or combinations of regulatory functions (regulation by contract, outsourced regulation) serve as opportunities for developing countries with limited human, financial, or political capacity for regulation to strengthen and cultivate their regulatory structures. Eberhard further explores these hybrid and transitional models in his paper *Infrastructure Regulation in Developing Countries*⁷. Non-public provision of infrastructure services requires regulatory stability. If sector regulation is not fully established, PPPs can bridge such gaps by incorporating regulatory provisions in the contracts. To achieve regulatory objectives, institutional capacity is essential for the government PPP counterparts to enforce regulatory provisions. Additionally, such capacities are indeed needed for managing any PPP contract.

ADDITIONAL BENEFITS OF REGULATION

Regulation has the capacity to improve governance outcomes and reduce corruption by separating policy and regulatory functions. Increasing transparency through establishing a clear process by which regulatory decisions are made enables all stakeholders involved to understand the basis for regulatory decisions. Instituting clear performance standards and benchmarks allows consumers to clearly understand the level of service they should expect to receive and helps to overcome information asymmetry. In cases where there is a lack of a formal regulatory function in place, PPPs can also address this gap and mimic such benefits. The World Bank report on the *Disclosure of Project and Contract Information in Public-Private Partnerships* demonstrates various benefits of disclosure in PPPs, including how transparent information on the procurement of PPPs can improve governance and provide users of service with an understanding of what levels of service they should be receiving⁸.

CONCLUSION: THE ROLE OF PPPS IN SECTOR REGULATION

Sector reform is an evolving process, and it is critical that developing countries take action through regulation to eliminate the information

asymmetries that enable service providers to overcharge customers. While sustainable independent regulation may take significant time to establish, PPPs can offer an interim solution by embedding regulatory provisions in long-term contracts, subject to adequate institutional capacity and legislative provisions. However, it is important to note that PPPs alone are not the answer to regulatory issues in developing countries and PPPs cannot substitute sector regulation. In order to effectively replicate regulatory provision in PPPs, institutional capacity is important.

PPIAF provides technical assistance to governments of low-and middle-income countries, through developing enabling environments, project cycle-related assistance, and capacity and awareness building. The World Bank and PPIAF assist client countries and governments in the early stages of developing their regulatory frameworks. Institutions need access to tailored resources, such as knowledge products and tools, to support the continued development of their regulatory environments. PPIAF is currently working with the Public Utility Resource Center (PURC) at the University of Florida to develop and update Body of Knowledge on Infrastructure Regulation mainly focused for least developed countries, fragile and conflict affected states.

Implications for Developing Countries

- Sector reform should take into account not only the shift towards private provision of services, but also the development of a sustainable regulatory system.
- Regulatory systems take a longer time to mature; developing countries should consider transitional solutions and explore how to leverage the PPP framework to provide an interim solution.
- When utilizing PPPs to provide interim solutions, developing institutional capacity to enforce the regulatory function is critical to meeting the objectives.

¹ Transformation through Infrastructure: Infrastructure Strategy Update FY2012-2015, World Bank Group

² Private Participation in Infrastructure Project Database

³ Tenenbaum et al. Handbook for Evaluating Infrastructure Regulatory Systems

⁴ Guasch et al. Renegotiation of Concession Contracts in Latin America. World Bank Group

⁵ Body of Knowledge on Infrastructure Regulation, developed by the Public Utility Research Center at the University of Florida and funded by PPIAF. (<http://regulationbodyofknowledge.org/>)

⁶ Eberhard, Anton. Working Paper. Infrastructure Regulation in Developing Countries: An Exploration of Hybrid and Transitional Models." PPIAF and World Bank Group

⁷ Ibid.

⁸ Disclosure of Project and Contract Information in Public - Private Partnerships. January 2013. World Bank Institute.