How to conceptualize a PPP for land administration services: understanding the private sector and commercial feasibility.

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Abstract

The authors contribute to the ongoing discussions about Public-Private Partnership (PPP) principles, approaches and various case studies that review this financing option for the land administration sector. These authors are familiar with, and share practical take-aways, from the large body of theoretical explanations of PPP, specifically targeting an audience of governments and donors. The paper does this in two ways: firstly, by elaborating on a the process of conceptualising a Land PPP proposal; and secondly, by emphasizing how parties can work to understand the private sector's perspective, motivations, and appetite at the project conceptualization and preparation stages.

In experience working with land administration practitioners and public sector department managers, we often come across requests to consider new models to finance land administration reform and increasingly discussion arises around attempts to apply a PPP model to land administration reform initiatives. However, in many of these discussions, it quickly becomes clear that that many countries have difficulty clearly describing a concept for a potential Land PPP in a form that is likely to attract private sector interest. Fundamentally, a PPP cannot be created purely because the government wishes to pursue this procurement option – the private sector must be willing and interested in entering into such an agreement. For the government to understand what the private sector is looking for in a potential opportunity, governments must examine and understand the commercial feasibility and attractiveness of a project.

Key Words: Conceptualisation, commercial, Land, Partnership, Private

1. Background

Although the development and implementation of the public-private partnership (PPP) model largely emerged across the infrastructure sectors, including transport, water, waste, and energy, PPPs outside these sectors, including in the eGovernment sphere, have become increasingly common. Across sectors, successful PPPs share a set of common underlying guiding principles and precepts.[1] These principles and precepts, however, require a deeper understanding when applied to land administration systems. PPPs in land administration are not new, but considering the application in developing countries raises many questions about the barriers to implementation.

Most existing PPPs in land administration (Land PPPs) are effectively examples of e-Government PPPs. There is potential to apply a PPP approach to the provision of land administration services, and a PPP approach is one of a number of approaches that could help close the registration gap[2] which currently stands at approximately 70% of properties globally.[3] There is an increasing range of tools to identify key land administration issues and design land administration reform initiatives, including the World Bank Land Governance Assessment Framework,[4] the fit-for-purpose land administration approach,[5] and the USAID Land Tenure and Property Rights framework.[6] However, none of these tools specifically address the steps necessary to prepare a land administration reform initiative under a PPP approach. Based on the experience of the authors, a critical barrier to considering a PPP approach to land administration reform is the preparation of a clear concept for a Land PPP. Most senior land administration officials understand the policy, legal, and institutional issues that need to be addressed in providing improved land administration services, but few understand the issues that need to be addressed in preparing a Land PPP that will both attract private sector investment and result in better provision of land administration services to government and the general public. A strong project conceptualisation and an understanding of what motivates the private sector is essential for governments to successfully design transactions which are attractive to the private sector.

This paper shares some practical take-aways from the large body of theoretical investigations and is targeted at key land-sector government and development partner stakeholders. The paper does this in two ways: firstly, by elaborating on the key issues that need to be addressed in preparing a concept for

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[1] See, for example, the World Bank's PPP Knowledge Lab pppknowledgelab.org , Accessed 9 October 2019.
[2] The proportion of properties that are not registered in a formal land administration system
[3] Only 30% of the world's population has a legally registered title to their land. https://www.worldbank.org/en/news/feature/2017/03/24/why-secure-land-rights-matter [accessed 25/2/2020].
[4] https://www.worldbank.org/en/programs/land-governance-assessment-framework [accessed 13/3/2020]
[5] https://www.fig.net/resources/publications/figpub/pub60/Figpub60.pdf [accessed 13/3/2020] and https://gltn.net/download/fit-for-purpose-land-administration-guiding-principles-for-country-implementation/ [accessed 13/3/2020]
[6] https://www.land-links.org/wp-content/uploads/2016/09/USAID_Land_Tenure_Framework.pdf [accessed 13/3/2020]

a Land PPP and secondly, by examining transactions from a private sector lens, looking at the overarching perspectives and underlying motivations of both parties in a potential PPP transaction.

2. Experience with Land PPPs

Land is a fundamental resource that needs to be managed and administered by government in a manner that addresses typically broad political, economic, social, and environmental objectives for the current population and for the benefit of future generations. An important arrangement in ensuring that land as a resource is addressed in these broad objectives is a land administration system (LAS). Land administration operates within the policy, legal, and institutional framework of a country or jurisdiction. Although there are generic approaches or methodologies adopted in a land administration system, such as the options of deed or title registration, there is great variety in how these systems are implemented in practice. Countries with less well-developed LASs face the cost of first establishing a LAS with broad geographic cover and the records and procedures to support it ("first registration"), in addition to the direct cost of providing LAS services to those requesting services. These important contextual factors need to be recognised and addressed in any attempt to develop a Land PPP concept.

The potential advantages of using PPPs in land administration are numerous and include:

- The ability to bring capital and finance to improvements, technology, modernization, and updates;
- The ability to bring know-how to improvements;
- The ability to maximize efficiencies and cost savings through private sector know-how and management practices;
- The improvement of procedures for setting up land registration in countries in transition,
- Increased flexibility of land registration services;
- Promoting the use of geospatial base data for additional (e.g. private sector) customer groups; and,
- Improved customer orientation of land administration services.

Technology is rarely the sole driver of PPPs in land administration. Arguably, more common drivers include:

- Lack of financial resources for investment in capital expenditure to replace legacy systems;
- Identified reduction in future operating costs;
- A reduction of the risk in investment; and,
- Introduction of process efficiencies delivered via technology.

Most projects in developed countries that have used a Land PPP model have focused on the introduction of technology and systems to provide government functions more efficiently. Developing countries have invested in a combination of building the system and computerizing IT or making the system more efficient. A PPP approach has been attempted or used to provide improved land administration system services in developing and developed countries for a range of activities, including:

- Data digitization and conversion
- Registration of property transactions (including certified extracts)
- Processing and provision of development/building permits
- Registration of professionals (lawyers, surveyors)
- CORS positioning services (main client: surveyors)
- Provision of land valuation information (main client: financial institutions, real estate brokers, valuers, etc.)
- Land use system, maps, etc.
- Mass appraisal for taxation (main client: central and local government)
- Preparation of tax rolls and/or tax collection (main client: central and local government)
- Land use system, maps etc. (main user: local government)
- Bulk transfer of tax records for government use (main client: central and local governments)

3. Developing a Concept for a Land PPP

A key challenge for a government considering the adoption of a PPP approach to the provision of land administration services, particularly in developing countries, is the development of a clear concept for a Land PPP. This is the first stage of PPP development. There are well-established best practice procedures for designing, structuring, appraising, and implementing PPPs (see the information on the PPP Project Lifecycle in Annex 1) and any proposal for a Land PPP should pass through these procedures. The PPP framework of the country or jurisdiction in which the PPP will be implemented outlines the processes required, but additional best practices for due diligence and evaluation may also be necessary. If such a framework does not exist, a government must consider the governing framework which would be applicable and ensure the appropriate steps are taken.

The discussion regarding the option of adopting a PPP approach often comes up early in the discussion about a land administration reform initiative. The politicians or senior bureaucrats raising the option often have little understanding of the approach and the features or characteristics that might may a PPP approach appropriate. In the authors' experience, many officials lack a basic understanding of the concepts of service provision and the financial basis for the provision of land administration services. These elements must be explored and documented when considering a possible Land PPP. This paper sets out a process to prepare a concept for a Land PPP that can be applied in developing a concept where none exists, but it can also be used to validate an existing concept. This process would be undertaken at the PPP identification stage of the project lifecycle. The concept would then be further developed and assessed during the subsequent stages of the lifecycle.

Three key steps for developing a specific land concept for a Land PPP are described below.

3.1. Service Factors that need to be Considered in Preparing a Land PPP Concept

Land administration services can typically be delivered in several different modes or channels. It is important that these different modes are understood as the current arrangements can impact on a Land PPP concept. Key factors that are considered in developing a concept for a Land PPP include:

a) The services that will be provided through the possible Land PPP and confirmation that these services can be provided by a PPP operator under the existing legal framework
b) The number and location of offices that currently provide land administration services
c) Whether land administration services are provided by isolated offices that include both front and back offices or the offices supplying services operate as front-offices with some central office or offices providing back-office support
d) The proposed scope of the Land PPP (whole jurisdiction or part jurisdiction)
e) The projected number of transactions and revenue likely to be generated based on decisions made on the services to be provided and the scope of the proposed Land PPP
f) The number of staff currently providing land administration services (employment status, qualifications)
g) The status of the ICT system supporting the provision of land administration services
h) The institutional arrangements and mandates for the provision of land administration services (including consideration of current arrangements for key services such as ICT, collection and allocation of land-related fees and charges and the provision of professional services by notaries, private surveyors and others)
i) Forecast of requirements for investment in first registration, ICT and other necessary equipment and facilities
j) A summary of the key rationale for considering a Land PPP (lack of capital, lack of resources, difficulties with institutional roles and mandates, etc.)

A key outcome from this analysis is the identification of any changes in institutional roles and mandates and in staff employment arrangements that might be necessary to arrive at a viable Land PPP concept.

3.2. Documenting a Land PPP concept

A Land PPP concept can be developed by considering the following topics:

a) *Project Objective*: What issue does the project address? What does the project aim to achieve? Improved access to services? Reductions in times taken for processing?
b) *Targeted Services and/or Functions*: What services and/or functions does the project aim to provide?

c) *Stakeholders*: What stakeholders are involved? Consider the public sector, the private sector, financiers, operators, and users. What are their roles and responsibilities in the project?
d) *Project Demand*: Is there a demand for the services or functions offered by the project? Is the demand sufficient to justify the project?
e) *Economic Benefits*: What are the tangible economic benefits of this project? Who benefits? Are the potential economic issues posed by the project implementation?
f) *Legal and Regulatory Regime*: What legal and regulatory regime would govern the project? Does it adhere to these requirements?
g) *Capital Investment Costs*: What are the estimated capital investment costs of the project?
h) *Operating Costs*: What are the estimated annual operating costs for the project? This would include the running of facilities, staff, and other such costs.
i) *Revenue Estimates*: What is the estimated annual revenue of the project?
j) *Environmental and Social Impact*: What is the environmental and social impact of the project?
k) *Project Risks*: What are the risks involved in the project?
l) *Proposed PPP Model*: What PPP model would be used for this project?

The information gathered to address the topics listed above will clearly document the Land PPP concept being considered. Much of the information will be difficult to obtain. There are international benchmarks for some key elements such as transaction rates. This information is essential in clearly documenting the proposal for policy-makers, government officials and potential private sector partners. While a land PPP project concept may make sense from a government perspective and demonstrate technical validity, it is critical for a concept to also demonstrate a degree of commercial feasibility as the project is developed. The proposed PPP model is an important element in the Land PPP concept. This is discussed below.

3.3. Decision on PPP Model

In developing a concept for a Land PPP, it is important to consider which PPP model and structure would be best suited to the project concept. There are established models and structures for a PPP.[7] Given the limited experience with Land PPPs, particularly with developing systems, future Land PPPs are likely to focus on arrangements that focus on provision of land administration services to users. These initial Land PPPs are likely to be structured as service contracts, joint ventures or concessions.

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[7] The World Bank Public-Private Partnerships Reference Guide, pages 7-8, considers the functions that a private party in a PPP might be responsible for (which might typical include the functions of design, build/rehabilitate, finance, maintain, operate) to develop a PPP contract nomenclature that includes: Design-Build-Finance-Operate-Maintain (DBFOM), Design-Build-Finance-Operate (DBFO), Design-Construct-Manage-Finance (DCMF), Build-Operate-Transfer (BOT), Build-Own-Operate-Transfer (BOOT), Build-Transfer-Operate (BTO), Rehabilitate-Operate-Transfer (ROT), concession, Private Finance Initiative (PFI), Operations and Maintenance (O&M), affermage, management contract, franchise. https://openknowledge.worldbank.org/handle/10986/29052 [accessed 13/02/2020]

A Service Contract might be considered where the arrangement entails a degree of risk transfer, has payments tied to performance and the proposal addresses an underlying public service or asset. This model might be applied to the digitization of land records, or the modernization of the land administration system. A joint Venture between the Government and a private party might suit an arrangement where the parties can share revenue and costs in many if not all aspects of land administration service delivery. A concession might be considered where there is a well-established system that might require upgrading.

4. Private Sector Appetite for PPPs

For a PPP transaction to be attractive to potential private sector operators and investors, the project should demonstrate commercial feasibility. To do so, estimated project inflows should cover projected project outflows. Essentially, the revenues and funding for the project should be able to cover all capital expenses (CAPEX), operational expenses (OPEX), financial obligations (interest, debt service, and equity paybacks), and taxes. In this context, CAPEX includes (but may not be limited to) the following: development of IT solutions; investment in first registration and/or digitization of land records; purchase of equipment, vehicles, and furniture; the costs of fitting out offices and facilities; and the purchase of buildings. OPEX, on the other hand, refers to operational and maintenance costs. This could include staff salaries, trainings, office rent, consumables (such as field supplies and office supplies), and the maintenance of IT systems.

A pre-feasibility or feasibility study should be undertaken to accurately determine these calculations. Project preparation must include financial modelling for various scenarios to calculate the total inflows and outflows over the life of the project. The accuracy of this analysis is dependent on the validity and availability of data to inform model assumptions (such as those informing the calculation of revenue amounts and costs over the life of the project). The payment mechanism proposed under the project structure will require different forms of analysis – primarily either a user-pays or a government-pays payment mechanism. The *PPP Reference Guide 3.0* defines these two models as follows:

- User-pays payment mechanisms are where "the private party provides a service to users and generates revenue by charging users for that service. These fees (or tariffs, or tolls) can be supplemented by government payments—for instance, complementary payments for services provided to low-income users when the tariff is capped, or subsidies to investment at the completion of construction or specific construction milestones. The payments may be conditional on the availability of the service at a defined quality level." (World Bank et al, 2017)
- Government-pays payment mechanisms are where the government is the sole source of revenue for the private party. Government payments can depend on the asset or service being available at a contractually-defined quality (availability payments)—for example, a free highway on

which the government makes periodic availability payments. They can also be volume-based payments for services delivered to users—for example, payment from hospital care effectively delivered." (World Bank et al, 2017)

The results of this analysis will inform the commercial feasibility assessment, which will reflect the overall attractiveness of the project to the private sector. The commercial feasibility analysis considers two perspectives – debt providers and equity providers. Debt, or lenders, scrutinize the bankability of the project, which measures the ability of the project to service and repay debt in line with set terms. In assessing bankability, the level of revenues and total amounts required to service debt, available collateral security, and stability of revenue are considered (ADB et al 2016).[8] Specifically, appraisal studies look at the Debt Service Coverage Ratio (DSCR), which examines if the project can generate profits capable of servicing debt each year over the duration of the project. The Loan Life Coverage Ratio (LLCR) and Project Life Coverage Ratio (PLCR) are also analysed, which examine the Net Present Value (NPV) of cash flows and the outstanding debt over the project duration (with LLCR considering ratio over the duration of the loan and PLCR considering ration over overall project life). (ADB et al 2016)[9]

Equity providers, on the other hand, are investors. Investors consider not only the bankability of the project, but also the estimated returns of the project. From this lens, the Net Present Value (NPV) of the project must be calculated with consideration of the Internal Rate of Return (IRR) and discounted cash flow. The results of this analysis should meet the minimum rate of return expected by equity investors – the so-called "hurdle rate". Project risks will impact these calculations, with higher risks incurred by the investor resulting in the desire for higher returns or additional guarantees from the public sector partner or other implementing partners, such as bilateral and multilateral donors.

The government can consider ways to improve commercial appeal if the project is not sustainable based solely on revenues generated under a user-pays payment mechanism. For example, the project may adopt a government-pays or hybrid payment mechanism. Under such arrangements, the results of the pre-feasibility and/or feasibility study will inform the level and degree of government funding support required to make the project commercially viable. This could take the form of viability gap funding, sovereign guarantees, service payments, availability payments, grants, or subsidies. Typically, governments will only provide such support when the project is expected to have a significant economic, environmental, or social impact, but financial returns are relatively low. In many cases,

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[8] ADB, EBRD, IDB, IsDB, and WBG. 2016. *The APMG Public-Private Partnership (PPP) Certification Guide*. Washington, DC: World Bank Group, p 38.
[9] Ibid., pp 38 – 39.

however, there is strict fiscal regulation governing the use of such funding mechanisms by public authorities that must be considered in advance.

The greater the commercial returns, the more investor interest will be generated. Strong market interest will enable a competitive procurement process among a pool of qualified bidders, which is essential to increasing the likelihood of receiving technically sound and cost-competitive proposals.

Properly assessing the commercial feasibility of transactions is a common challenge for public entities considering a PPP, especially within the land sector. It is not enough for a project to just breakeven over the duration of the project. Investors and private partners need to obtain a reasonable return when considering the opportunity cost of failing to invest in other more lucrative ventures. Unless a clear business case underpinning the commercial viability of a given project is established before procurement, it is likely that market interest will remain limited at best.

Conflating the economic value and the commercial value of projects is common among land agencies, leading to misunderstandings of the investment appetite of the private sector for certain projects. A project of high economic value does not necessarily also have a high commercial value. This understanding of the commercial case for a project is critical for governments considering PPPs in land administration and should be used as a lens when considering potential partnerships with the private sector. The fundamental motivation of an investor is not to optimize the economic impact of a project – it will be to generate profit. Consequently, careful project appraisal and structuring are imperative to properly understanding the financial footprint of any given investment. Moreover, clear and comprehensive obligations and standards of service are critical to contractually addressing concerns over rights and responsibilities and risk allocation (such as the coverage of low turn-over rural areas, for example). Contractual incentives and penalties can be tied to the private partner meeting certain milestones or key performance indicators (KPIs). Drafting a contract with these stipulations and assignments of roles and responsibilities is fundamentally dependent on rigorous project appraisal and structuring.

5. Conclusions

A key challenge for a government considering a PPP for the provision of land administration services is the development of a clear concept for a Land PPP. This paper aims to provide clarity on essential conceptualisation required for the proposal of a Land PPP and what preliminary information is needed prior to further PPP life-cycle design steps.

In order to successfully operationalize PPPs in land administration, it is critical to examine and assess the commercial feasibility of each proposed transaction. By considering the perspectives of debt and equity providers, governments can understand the underlying market interest for the proposed project and consider potential structuring options to optimize the chances of a competitive bidding process.

To do so, governments must conduct investment due diligence and market sounding during project structuring and appraisal. Pre-feasibility and feasibility studies can provide the required data sets to inform critical decisions regarding the project payment mechanisms and risk allocation. These analyses rely on the accuracy and availability of data to inform key assumptions underlying the financial modelling. When local capacity is lacking to prepare the necessary indicators and reports, external advisors (including through development partners) can be engaged to provide technical advisory support. However, access to the agency's data remains essential. This preparation will also lay the basis for the formulation of the PPP contract encompassing the allocation of responsibilities and obligations and standards of service, which will guide implementation throughout the project duration.

Overall, governments must consider the perspective of the private sector and understand underlying investment motivations in order to optimally structure PPP transactions within the land administration sector.

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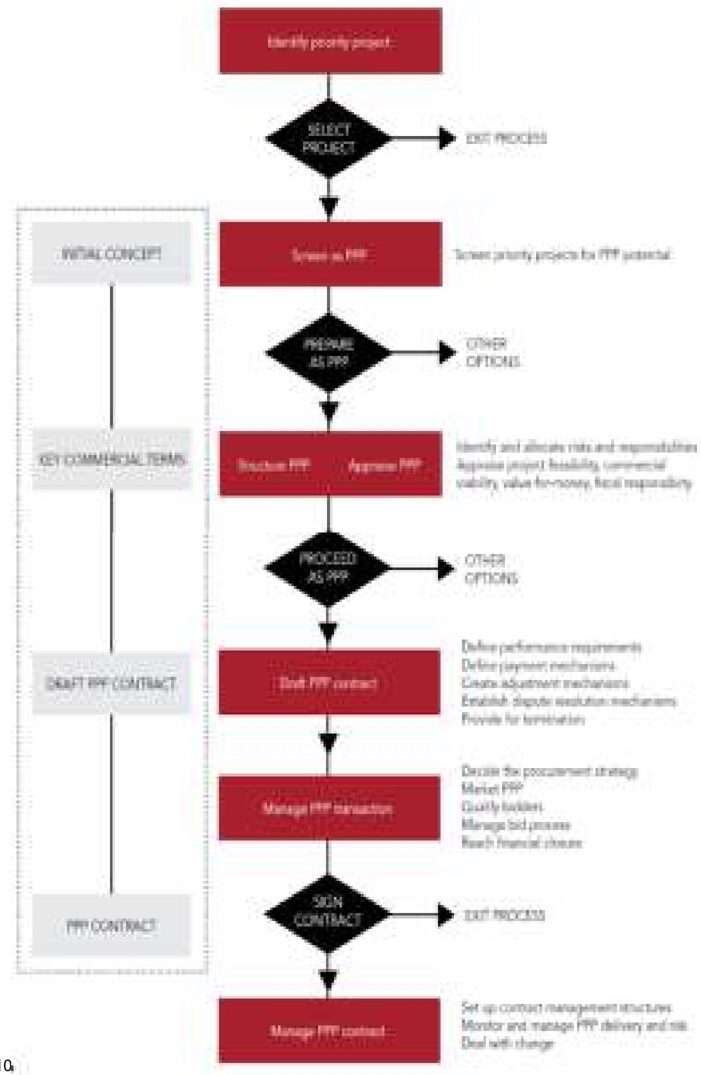
PPP Project Life Cycle

- **Project planning and identification** – is where PPP projects are identified and prioritized in line with government objectives and in accordance with preliminary economic analyses of the likely benefit of a PPP versus a traditional procurement approach. Most countries have established procedures for public investments such as PPPs, which often include sector-specific development plans that will directly impact on project identification because coherency with fiscal policy and budgetary allowances is critically important to a coordinated development strategy.
- **Screen as a PPP -** The Government leads an initial PPP screening to examine fundamental questions on whether other technical alternatives exist and the strength of the socio-economic case in favour of proceeding with a PPP approach for the project. This is typically supported by a Cost-Benefit Analysis (CBA). Under the affordability analysis, there needs to be a balance struck between ensuring the affordability of a service to users and ensuring fiscal affordability to government.
- **Project structuring and appraisal** - the fundamental objective of project structuring is to maximize to the greatest extent possible the VfM proposition of potential projects. Structuring refers to the identification and allocation of risk and responsibilities to the private and public parties, as well as the definition of specific commercial terms, delineation of financial arrangements, and establishment of payment mechanisms. Project appraisal encompasses scrutiny of a project's technical, commercial, economic, fiscal, environmental, social, and legal feasibility, as well as associated lines of enquiry related to VfM assessments and debt analysis. The combination of these analyses is to determine whether a project is, in fact, suitable for implementation as a PPP, then to prepare the project for procurement.
- **Drafting PPP contract** - government bears responsibility for designing the PPP contract and associated agreements that represent all commercial principles of the agreement between the public and private partners. It is essential that, as foundational principles, the contract contains a clear breakdown of the responsibilities of all parties, determination on risk allocation, and detailed description of the payment mechanism.
- **Manage PPP transaction** - typically, PPP procurement is conducted under an open tender with a pass/fail prequalification (two-step solicitation) process, as opposed to an open tender (one-stage tender). Government institutions must conduct careful evaluations of technical and financial proposals to determine the merit of each against well-defined criteria to ensure the selected bid presents the highest VfM proposition. It is essential that the private party is capable of innovation and achieving efficiency gains, which should be demonstrated in its proposal.
- **Manage PPP Contract** - stablished institutions capable of providing effective oversight throughout implementation play a key role in ensuring projects reach their intended objectives. They also provide an effective mechanism for enforcing contract compliance when the private party fails to adhere to the required service performance standards. The unique characteristics of PPP contracts also require some flexibility on behalf of government institutions to deal with change in the form of contract adjustments, dispute resolution, termination, and renegotiation. Finally, effective institutions also perform important functions when it comes to managing the transition of assets and operations at the conclusion of a contractual term.



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[10] https://pppknowledgelab.org/guide/sections/51-ppp-cycle