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PPP IN LAND ADMINISTRATION – WHY NOW AND WHAT ARE THE RISKS AND BENEFITS?

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Abstract

Demands and expectations on land administration services change radically as new technologies, environmental challenges, urbanization, new business ecosystems, requirements for completion of first land registration and other social and political influences now gradually transform our practices and mindset. The authorities need to provide greater choice and control, more transparency, process inclusiveness and equity, on-demand access to information, adequately capture people-to-land relations, better utilize geospatial information as mean to integrate other thematic data for e.g. smart cities, utilities and e-government etc. They also need to be capable to innovate and maintain systems and services that can evolve over time. The ability to maintain highly skilled employees is another constraint. In combination with uncertain budget allocation for modernization of land administration an increasing number of nations now consider public-private partnership as an attractive alternative to adequately respond to these needs. Ultimately it is about enabling land administration authorities to stay relevant and become *sustainable*. This paper discusses benefits and risks associated with introducing the PPP vehicle in the land administration domain and why this model is appropriate in the context of today.

Key Words: land administration, sustainability, PPP, technology, funding



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Introduction

State authorities should constitute the glue of trust from which the society and individuals can grow. Today's global megatrends, new user expectations, various constraints to evolve and widened engagements in different state priority programs, pose serious pressure on the performance of land administration authorities and their ability to stay relevant. This paper discusses the endemic challenges in providing fit-for-purpose and trustworthy services over time in this rapidly changing environment and how a private-public partnership (PPP) approach could provide a vehicle to enable the authorities to transform and become *sustainable*. In a development context, experience proves that short-term (<5 years) donor-funded/soft loan projects tend not to solve the viability of the authorities and their services. Long-term PPP arrangements, with the private sector providing appropriate capabilities and collaborating on a journey of transformation, could be applied for both completing national reform programs and sustaining the progress achieved on a given project. The PPP approach will allow governments to capitalize on the private sector's efficiency, capacity and innovation while at the same time share risks and relieve sole responsibility for up-front costs.

PPP – why now?

Demands and expectations on land administration and land governance, in both developed and developing countries, change radically as new technologies, environmental challenges, urbanization, migration, requirements for completion of first land registration and other social and political influences now gradually transform our inherent accountability, traditions, practices and mindset. The land administration authorities need to provide greater choice and control, more transparency, process inclusiveness and equity, on-demand access to information, adequately capture rights, restrictions and responsibilities on land (people-to-land relations), better utilize geospatial information as mean to integrate a variety of other thematic data for e.g. smart cities, utilities and e-government programs etc. They also need to be capable to innovate or adapt to innovations, both when it comes to land rights (e.g. automation in registration processes, digital id, e-services, linkage to tax, address and building permit processes) and cadastral/base mapping (e.g. automatic feature extraction, change detection and generalization). At the same time, it must be secured that the land administration domain appropriately contributes to the development of resilient systems to manage the long-term variables described through the UN Sustainable Development Goals, for which many of its defined targets are underpinned by good land governance.



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For land administration authorities to stay relevant and liable and provide sustainable, efficient and trustworthy services in a changing environment, they need to have systems, services and capabilities that can *evolve* over time. This poses great challenges to many countries. The ability to recruit and maintain highly skilled employees is often an additional serious constraint. In combination with uncertain budget allocation for modernization of land administration functions and services as well as constraints to maintain data and system solutions, this make an increasing number of nations to now consider PPP as an adequate alternative or complementary model. Capital market co-funding is then combined with a revenue-sharing financial model (using e.g. mortgage and transaction fees, service fees, property tax). Thus, the ultimate objective with the private sector involvement is to enable land administration authorities to become *sustainable*. This has repeatedly been a challenge for many developing countries where external/donor funding often has been made on a one-off short-term (< 5 years) project basis with too little emphasis to ensure continuity with viable and fit-for-purpose capacity and capability solutions.

Possible scenarios for land administration in the future can further illustrate the complex and changing landscape within which nations and their land administration authorities need to orient themselves and make strategic pathways. The scenarios can be applied to reduce the risk for tunnel vision and increase preparedness to adapt to new future states and build resilience for disruptive events. This is essential in the context of introducing a PPP vehicle for the purpose of obtaining proper long-term gains. To elaborate on this, let us first define the horizontal axis in a scenario cross to represent land administration *governance* with *traditional/hierarchical* to the outer left and *digitally enabled ecosystem* to the outer right. If we then assign the vertical axis to represent the responsible actors for conducting the land administration *operations*, with the upper end representing *private* actors and the lower end *public* actors, we will have the following scenario cross:



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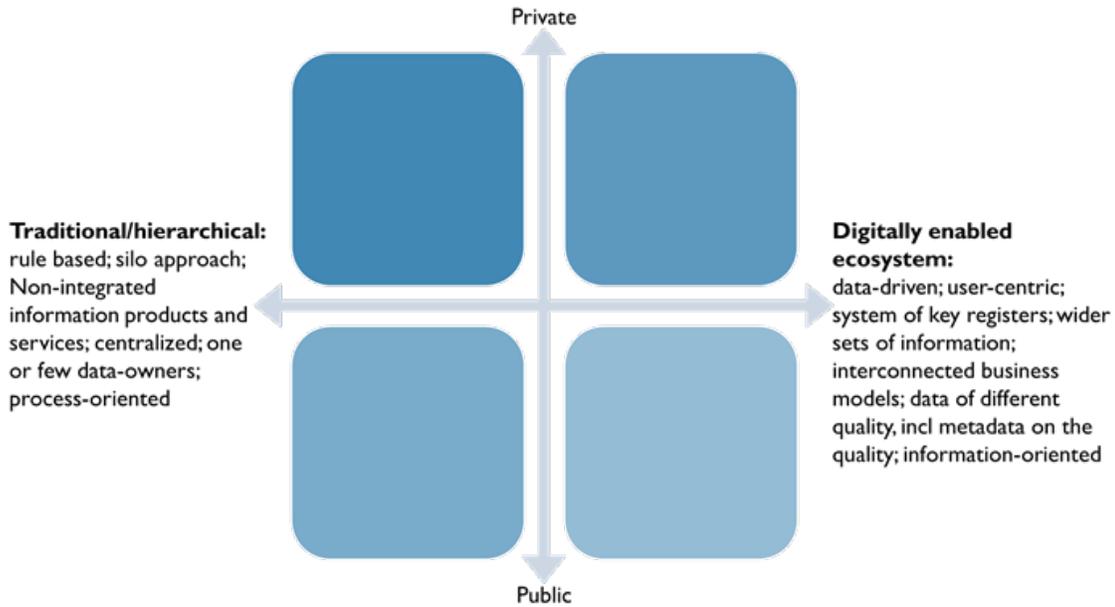


Figure 1

In each of the four quadrants we can then add a scenario with a descriptive name in accordance with Figure 2 below:

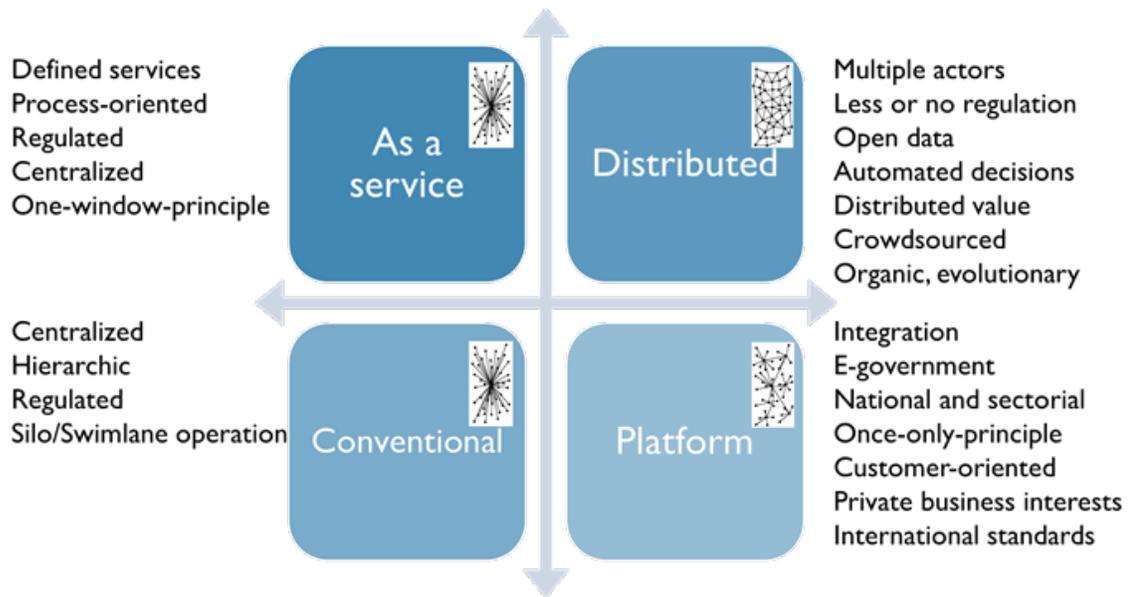


Figure 2



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The scenarios can be characterized as follows:

“Conventional Land Administration”

This scenario characterizes the most common situation of today. It represents a centralized land administration where functions, operations, services and data are typically managed and governed by the state. It has a hierarchic organization with top-down management. Data is captured and updated in a controlled way resulting in authoritative data. Services and processes are regulated in detail. The conditions and performance of professionals, most of them representing the public sector, are also strictly regulated. Often separate silos are keeping the various data sets, such as buildings, property, parcel, title, address, land use. There is a risk of work redundancy and overlap of information at attribute level. Much of the information products and services are non-integrated. The scenario tends to have system solutions characterized by constraints to evolve, develop new capabilities and meet new expectations. This is particularly true when geospatial data is included which attracts many producers and users and drive applications that require an open and more integrated environment. Expected increased complexities in people-to-land-relations and e-services challenge land administration systems positioned within this scenario. The fact that land administration authorities to an increasing extent are involved in state priorities in the vicinity of their core responsibilities, for example e-government, integration of building and land development processes, spatial data infrastructures, smart cities and climate change initiatives, put additional pressure on land administration represented in this scenario.

“As-a-service Land Administration”

This represents a scenario where one or a few private sector actors execute the land administration services, or some of them, often through a long-term as-a-service model with the state still governing the data and setting the rules for land administration. The private actor(s) might also be responsible for the technical system and its maintenance. Often a private-public partnership (PPP) model is applied with revenue-sharing using for example transaction fees, data/service fees and property tax. Existing use cases are essentially from developed countries where the land registry is operated by private companies (e.g. Western Australia and Ontario in Canada). Several emerging economies (Vietnam, Liberia, Ghana etc.) are now investigating PPP/as-a-service solutions for parts of their services such as the operation of CORS, first registration processes, land registry, valuation for taxation and mortgaging etc. The World Bank has initiated a global PPP consultation to further explore these opportunities.



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“Platform Land Administration”

Land administration is with this scenario executed within a national/sectorial framework which includes several state bodies where each one has its designated functions, responsibilities and defined data sets. Typically, a range of key registers with national data sets (for example cadaster, land registry, business register, mortgage register, statistics, utility register and address register) are included, sometimes within a government cloud. The updating process takes into account all registers and the once-only principle is applied for data capture in order to avoid work redundancy and data duplication and inconsistency. Key identifiers, and not the data content, are exchanged. National architecture of key registers thus overarches agencies and institutions and the updating process embraces all relevant registers and each attribute is linked to a specific custodian, i.e. the authority responsible for the defined data set. This approach facilitates provision of data-centric applications, extended state services with integrated governmental data and automated processing. E-government initiatives are often a driver towards this concept and have a potential to provide economies of scale for the government and at the same time improve sharing of national data sets and capabilities across organization and sector borders for extended integrated public products and services. Inspire can for example be implemented in a more efficient way by this approach.

“Distributed Land Administration”

This is considered the most visionary scenario. It represents an environment with highly automated and multi-stakeholder land administration where the private sector has a large stake and where governance is moving to an ecosystem of technologies, platforms and diverse set of stakeholders. Thus, there is a high level of trust “within the system” which is distributed among the stakeholders, private as well as public. The governance is aligned with distributed liabilities. The services and information products are fully digital. Distributed value chains, e.g. blockchain, are implemented. A set of configurable building blocks (technology and services) are implemented to meet various user requirements and societal needs. This will require extensive cooperation and clear distribution of responsibilities and risks. The widened opportunities of integration of data from multiple providers, including crowd-sourced data combined with an open data policy, will require high degree of standardization and stringent policies on compliance with data privacy and data security regulations. The concept facilitates process automation and transparency and enable a wide spectra of user applications. It will also provide for a built-in evolutionary environment that in a complex context can transform and adapt to new expectations and requirements over time. (e.g. 2D -> 3D, introduce blockchain, AI, Big Data analysis etc.) It has the potential to trigger digital engagements and efficiently leverage digital trust.



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Certainly, the reasoning is somewhat provocative and there are possibly arguments that would challenge several of the statements. And the As-a-Service/PPP scenario could of course play a role in several of the other scenarios and vice-versa. However, the exercise shows that there are number of critical strategic decisions to consider and to focus on priority areas with most important effect for each jurisdiction, given its respective local context. The PPP vehicle could support with appropriate capital, technology and skills from the private sector to secure this well into the future.

For developing countries with donor/soft loan funding of short-term projects, the PPP should be considered as an integrated and complementary long-term funding mechanism to enable the authority to become sustainable. Ideally, such project should set aside funding (0,5 mUSD?) for carrying out a comprehensive evidenced-based feasibility study to guarantee careful decision-making and planning of implementation.

Figure 3 illustrates a suite of foundation capabilities, technologies and expertise that a PPP model effectively could support, whether in parts or entirely.

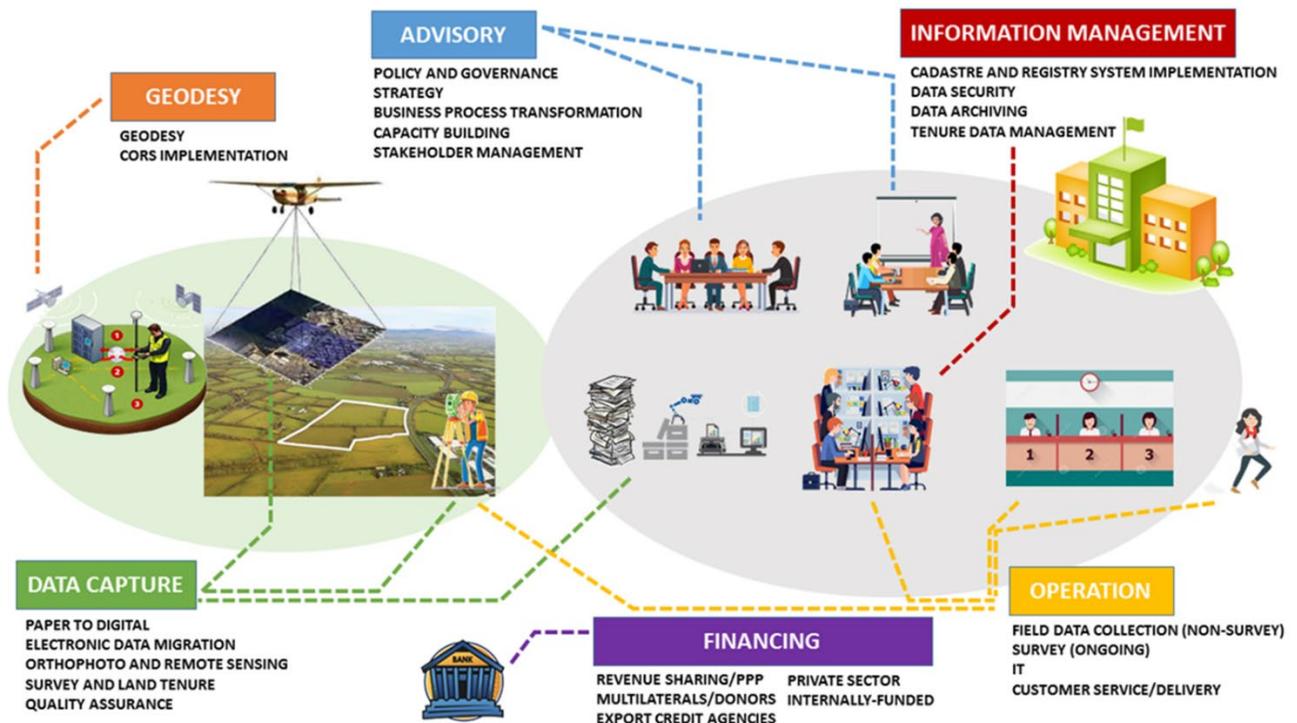


Figure 3



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In combination with the private sector partner collaborating in a long-term journey of transformation, this would secure the authority a built-in evolution needed to meet new requirements over time. See figure 4.

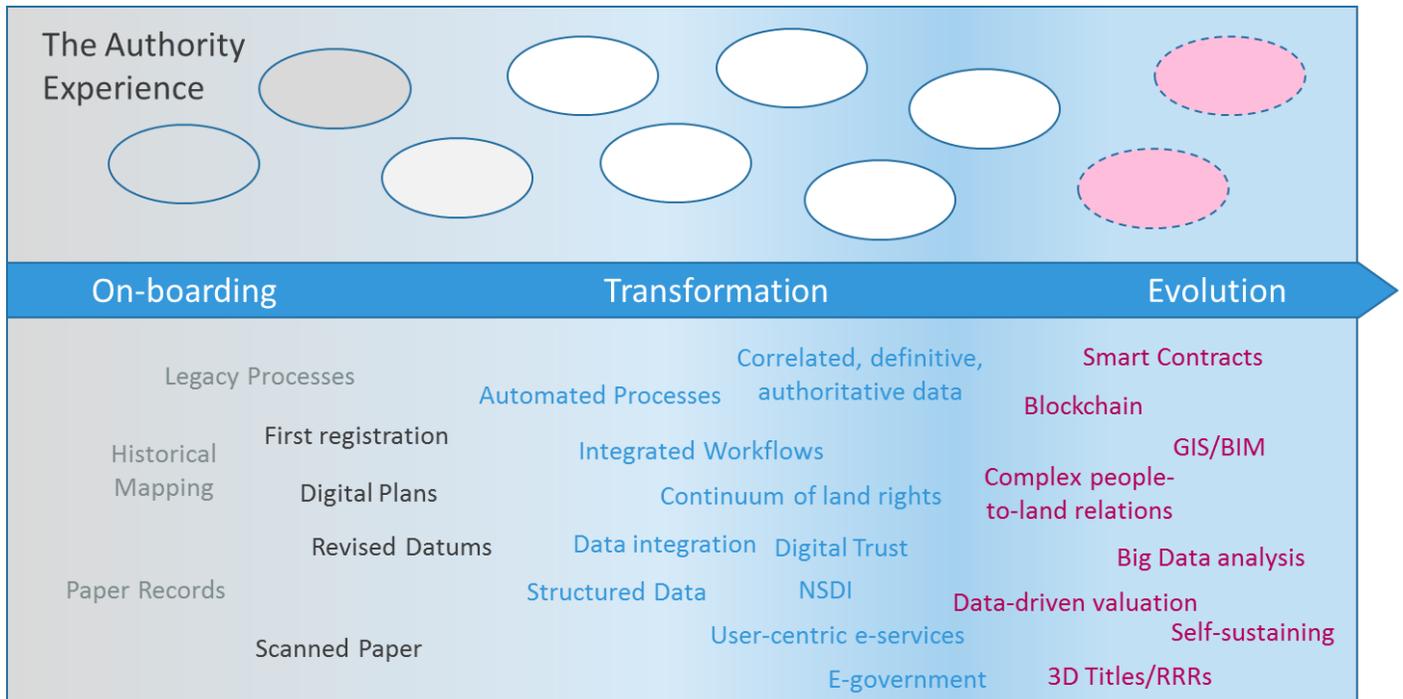


Figure 4

With the discussed sense of urgency for land administration authorities to properly respond to new requirements, the PPP vehicle can be well-suited to overcome structural deficiencies, close financing gaps for a holistic reform, complement with necessary skills and rectify technology inadequacies in order to obtain a sustainable land administration. For this to be successful there are various risk factors to carefully consider.

PPP - Risks and Benefits

While this paper is focusing on PPP for emerging economies, most of its content is relevant also for developed countries. The differences lie for example in the fact that developing countries (i) often have to complete first geospatial and land registration data capture (or for example migrate from paper to digital records) in parallel with enabling the modernization of the land administration functions and services, (ii) have few PPP use cases within the land administration domain and (iii) less reliable access to resources (financial, political goodwill, institutional, constitutional/legal rights etc.). In general terms, PPP is often



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defined as “A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility and remuneration is linked to performance”. PPP contracts typically allocate each risk to the partner that can best manage and handle it. Risk transfer to the private partner is not a goal but is instrumental for full transfer of management responsibility and for the alignment of private interests with the public interest.

Challenges to overcome to successfully implement PPP are both at country and sector level. The related risks refer to the government, the citizens as well as to the private partner (or rather the consortium, since it is hardly one single private entity that can be expected to cover all the financial, technical as well as domain specific competences and solutions that are to be provided). For the citizens, at worst a monopoly is created with increased fees, deteriorated services and data kept in silos as a negative consequence. Another risk could be that the private partner is not enough incentivized to consider land with low value or areas where the number of transactions is low. All these risks must be fully mitigated in the PPP contract. This also requires that the country has a PPP legislation in place. For the government, the guarantee of land tenure security should remain a state function and the state should also continue to keep the ownership of the data while the private partner could be the custodian of the data. Another important aspect for the government to consider is that many of its employees might not fit the skill profiles required and need to be relocated to other functions. Cyber security responsibility and mitigation measures in the event of bankruptcy of the private partner are other critical aspects to consider in the contract. The government also need to ensure that it has enough capacity to conduct quality control throughout the PPP lifecycle. The risks for the private partner are much related to the revenue stream generated during the operation phase, including fluctuation in macro-economic, currency and property market, political interference, social instability and changes of legislation.

Factors for successful realization of the PPP are for the citizens related to improved and trusted services that can evolve over time, increased value-added products and better utilization of land and geospatial information to support economic and social development. The government benefit from budget savings through capital market funding to the sector, increased client satisfaction, increased revenues from widened services and a more vivid formal land market. The private partner’s main benefit is profit but also strengthened brand identity, improved visibility, engagement with local partners are positive effects from a successful PPP.



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Conclusion

For land administration authorities to remain relevant and deliver expected services over time in a rapidly changing environment the PPP concept gains increased interest. The private sector contribution of advanced and configurable services in combination with the offering of deployment of evolutionary system solutions and funding from the capital market are responding to the needs of many land administration agencies of today. Hence, PPP can be considered as an attractive and realistic concept to meet these needs provided there is a mutual understanding of expectations, a clear delineation of responsibilities and an agreed and robust financial model.