

ANALYSIS OF THE BARRIERS TO LAND ADMINISTRATION IN PAKISTAN

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Abstract

This paper investigates land administration in Pakistan. Why is land administration strategically important and challenging especially for developing countries such as Pakistan, what exactly are the barriers and how can geospatial technologies, literature as well as best practices related to land administration help to break these barriers? To address these questions, this paper investigates land administration in the country to identify barriers and their nature such as policy, legal, economic, political, institutional and technical that are being faced at various levels of government from national to provincial. We make use of questionnaire and semi structured interviews of the experts involved in land administration as instrument to collect and validate data in addition to study the latest published reports by World Bank, US-Aid, UNDP-Pakistan, Asian Development Bank and FAO, etc. We then critically reviewed the relevant literature in order to determine the existence of the identified barriers and their frequency of occurrence in other countries, as well. This procedure helps to discover the gap between theory and practice. The literature review coupled with study of best practices is benefited to gain knowledge about resolution of the issues. Finally, the paper presents recommendations to be adopted by the Government of Pakistan to implement successful land administration and management system in the country. The paper finds that although the Government of Pakistan has vision to setup state of the art system for land administration in the country but still it is far away from reality. The paper concludes that sustainable development and poverty alleviation is just a dream without an effective, efficient and fit for purpose Land Administration System (LAS).

Keywords: Land Administration and Management, Land Reforms, Barriers, Pakistan

1. INTRODUCTION

Almost every country is facing challenges such as climate change, food and fuel insecurity, unemployment and un-planned urbanization, deforestation, encroachment of state land and land disputes, over-population, natural disasters as well as quickly shrinking natural resources. All these challenges are related to land and demand efficient and effective land administration. Only 40 countries around the world have mature land information systems. Most of the developing nations have 10% or less of their land in formal systems. In many countries, land administration systems are non-existent, manual paper-based or semi-automated systems subject to limited public access, and at significant risk of data loss and failure due to disasters and lack of interoperability. Challenges exist to guide countries in a programmatic way to establish more cost effective, efficient and interoperable land administration capability, to upgrade current manual to semi-automated processes, and to field solutions that are more automated and flexible to new data sources and new technologies. These interoperability challenges are faced today in countries considered as “developing” as well as those countries designated as Official Development Assistance (ODA) recipients” (Reichardt & Soliz, 2016).

Land is one of the main natural resources (Khan, 2011) and hub of all activities of mankind. There is no country without land. Land is an essential component of our lives because it is the source of our food, fuel and living needs (Ali, 2009). Governments should pay special attention to land (Rigg, et. al., 2009). It is more than an asset because it is linked with source of income and livelihood (Dale. and McLaughlin, 1999). But it demands to be carefully managed, otherwise productivity of the resources such as crude oil, natural gas, reserves of coal, forests, water, hydropower, ores, agriculture and minerals inherited by land will decrease considerably. On one hand, developing countries like Pakistan depend more on these land owned resources and less on industry for its economy, on the other hand, growing number of terrorist attacks in recent years in Pakistan has added a new dimension and value to land administration in the country. Reliable and timely supply of land related data is not only needed by security agencies but also by the rescue workers and teams to save loss of human lives. For most of the poor developing countries, land is the primary means for generating a livelihood and a main vehicle for investing, accumulating wealth, and transferring it between generations. Land is also a key element of household wealth (Deiningner, 2004).

A 2016 World Bank report, Pakistan development update, From Stability to Prosperity finds, “Pakistan continues to lag in realizing its tax revenue potential. In lifting tax revenues, efforts may need to focus on strengthening authorities, capacity to monitor and enforce compliance through market analysis, access to data and increased options to tax audits. [Due to increasing population in the country] as settlements grow and become denser, pressure grows on infrastructure,

basic services, land, housing and the environment (World Bank, 2016). The report finds “A failure to manage land and housing markets has led to messy urbanization, where cities are growing most quickly on their peripheries”. Around 20 percent of all Pakistanis live in urban areas outside administrative boundaries, and are ‘hidden’ from official figures, the report informs. This is leading to multicity agglomerations, which present governance challenges.

Policies don’t have teeth but they bite. Land policy is the foundation of a country’s land administration system (Burns & Dalrymple, 2008). And one important role of land administration system is to provide the basic infrastructure and service which enables the implementation of land policy (Williamson, 2001). Moreover, land policy is of fundamental importance to the good governance, sustainable development, and the well-being of human being, especially the poor (Deininger, 2004). Thus, without involving land policy, it is meaningless to evaluate good governance within land administration system for pro-poor. So, in this research, land policy can be seen as the extension of land administration system which needs to be evaluated as well.

Land administration systems of developing countries have similar kinds of weakness such as redundant procedures, inconsistent regulations and policies, and ingredients absence (Grover, 2007). There is no internationally accepted governance framework or index which aims to evaluate good governance within a certain land administration system (Steudler, et. al., 2004). In order to identify the barriers to Pakistan’s land administration, this research benefits from the theory of good governance. By evaluating the good governance within a land administration system, this research exposes the hidden weakness inside the system. Thus, this research evaluates Pakistan’s land administration system from the perspective of good governance to find out whether the system is qualified enough to improve current difficult conditions faced by the country.

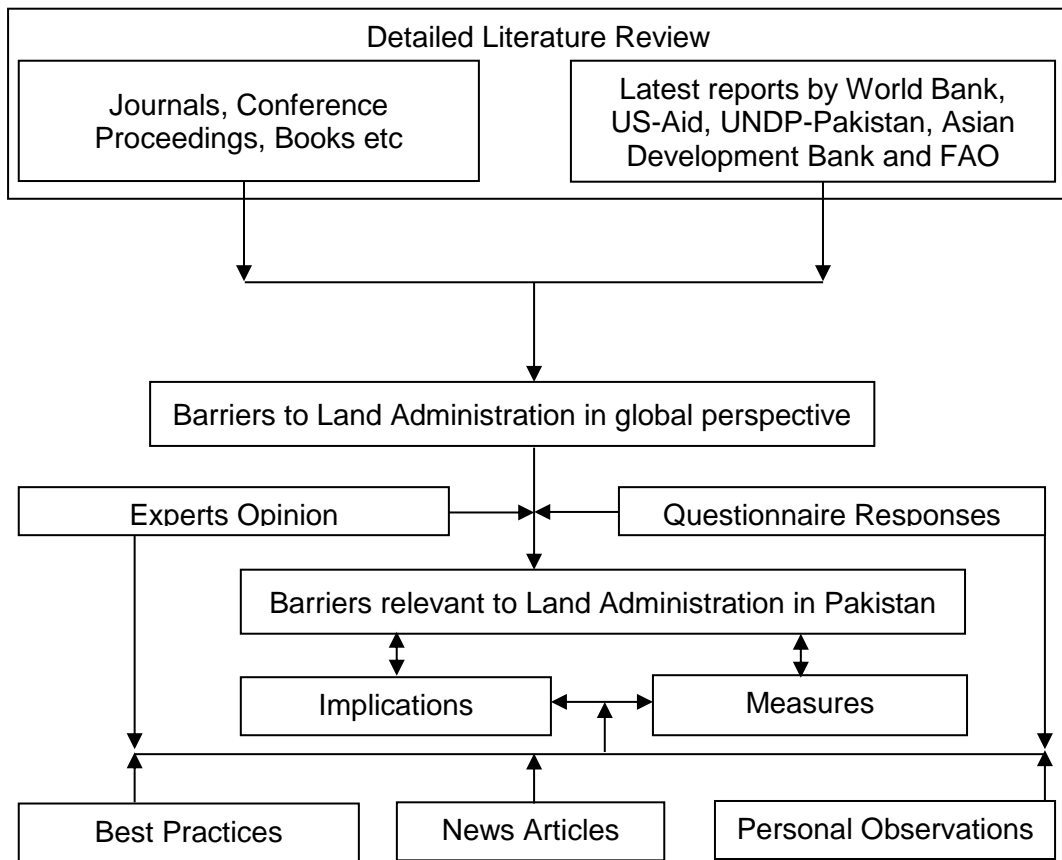
The rest of the paper is organized as follows: Research Methodology section briefly explains the processes adopted in carrying out this research. The “Barriers to Pakistan’s Land Administration” section underpins the identified barriers coupled with elaborated descriptions, implications and recommended measures. Finally, the Conclusions and Recommendations section presents brief summary of analysis of the barriers and future directions for further research.

2. RESEARCH METHODOLOGY

A mix of different data collection strategies were employed to identify the barriers to land administration in Pakistan. We critically reviewed relevant literature as well as the latest published reports by World Bank, US-Aid, UNDP-Pakistan, Asian Development Bank and FAO etc. to identify initial list of barriers. A questionnaire was designed and sent to 20 public and private sector organizations engaged in

management of land related information. Only 12 organizations returned the questionnaire which makes 60% response rate. Some semi structured interviews of the experts involved in land administration of Pakistan were also conducted to further purify the identified barriers and inform this research. Then implications and recommended measures are laid down based on best practices, experts' opinion, questionnaire responses, news articles and personal observations.

Figure 1: Research Methodology



3. THE BARRIERS TO PAKISTAN'S LAND ADMINISTRATION

After implementing the research methodology (Figure 1), initially more than 100 barriers were identified and further reduced to 61 in the local context of Pakistan included in this study. The barriers were organized into seven groups i.e. policy, economic, social, technical, legal, political and institutional based on their relevance and after PESTLE analytical model. The detail of barriers along with description, implications and recommended measures based on best practices,

experts' opinion, questionnaire responses, news articles and personal observations, is given in Table 1 to 7. However, cross-category inter-relationships or dependencies may exist between the barriers described in the tables.

Table 1: Policy Barriers

Key: EO stands for Experts' Opinion; QR stands for Questionnaire Response; LR stands for Literature Review; Y stands for Yes and N stands for No.

Barrier	Evidence			Description	Implications	Measures
	LR	QR	EO			
Insecure citizen's privacy	LR Olusoyi, 2012; Lam, 2005	QR Y	EO N	Policies do not support and secure citizen's privacy.	Citizens do not contribute to successful implementation of LAS.	Government of Pakistan (GoP) should adopt inclusive approach to motivate, promote and encourage citizen's participation.
Short-term political objectives	LR Deininger, 2004; Williamson, 2000	QR Y	EO N	Policies are guided by short term objectives and agenda points of a political setup.	Policies last only with the life of political setup that drafted it. Policies favour certain political setup agenda.	Long term objectives should be adopted for LAS implementation.
Narrow policy instruments	LR Deininger, 2004	QR Y	EO N	Policies are made with narrow and insufficient policy instruments.	Due to narrow and lack of sufficient instruments, policies relevant to LAS fail.	Focus should be on devising new and sufficient policy instruments to enable LAS in the country.
Daunting policy environment	LR Deininger, 2004	QR Y	EO N	Policy environment is not conducive for proper implementation of policies related to LA.	Benefits promised in policies can't be guaranteed without conducive policy environment.	GoP should discourage daunting policy environment.
None	LR	QR	EO			

Barrier	Evidence		Description	Implications	Measures	
	Deininger, 2004; USAID, 2012; Arshad, 2015	Y	Y	Land related policies are not integrated with rest of the existing policies such as economic, climate change and social policies.	Comprehensive and seamless view may be impossible.	Policies should be integrated and aligned with other relevant policies that support common goal.
Narrow policy guidelines	LR	QR	EO	Guidelines to implement and monitor the policies pertaining to land administration are insufficient.	Confusion in implementing policies increases.	Detailed and clearly defined guidelines should be published and distributed across the country.
	Deininger, 2004	Y	Y			
Limited awareness	LR	QR	EO	Limited awareness about the benefits embedded in the implementation of land administration policies.	Resistance to policy implementation increases.	Social media should be considered for creating awareness about the intended policies.
	Deininger, 2004	Y	N			
Devastation of traditional systems	LR	QR	EO	Policies support the devastation of traditional land tenure systems.	Citizen affected by that devastation will use illegal means to retain their land rights and will certainly oppose any change to traditional land tenure systems.	GoP should draft and implement policies coherent with existing traditional land tenure systems.
	Byamugisha & Zakout, 2000; Brits et. al., 2002	Y	N			

Barrier	Evidence			Description	Implications	Measures
	LR	QR	EO			
Unequal access to land	Weinbaum,2006; Hilhorst & Meunier,2015	Y	Y	Policies favour disparate access to land and records.	Poverty especially in rural areas increases.	Policies should include implementable and prioritized actions and programs to support equal access to land
Multiple unrelated land laws	Deshpande, 2007; Burns et al.,2007; Ali, 2009	Y	Y	Policy redundancy and disintegrated laws related to land administration exist.	<ul style="list-style-type: none"> - Multiple laws about the same issues cause ambiguity in implementation cases. - True implementation of land administration policy could not be achieved. 	Scrutiny of existing land related laws and policies are required before drafting a new comprehensive land policy.

It is evident from Table 1 that land administration (LA) in Pakistan is suffering from non-conducive policies and the policy environment. Being a privacy conscious region, it is essential to ensure citizen's privacy by revisiting existing policies and making necessary changes with the help of the public in addition to experts of the subject. It is important to prepare detailed guidelines for implementing the newly suggested changes and in this context new policy instruments needs to be devised, tested and adopted rather than the traditional and borrowed ones from other regions. Land administration is a long-term objective though on the political agenda of all provincial governments, too. As governments in the country are always fragile and vulnerable, therefore, focus should be on enhancing the capacity of the institutions involved in LA so that diverse policies related to LA being implemented by various institutions could be aligned, integrated and synchronized.

Table 2: Economic Barriers

Barrier	Evidence			Description	Implications	Measures
	LR	QR	EO			
Preparation of financial model	LR	QR	EO	Preparation of financial model for land administration	Without a financial model, LAS projects lead to failure.	Technologies, services and market assessments should be considered while prepare a financial model for land administration.
	Burns et. al.,2007	Y	N			
Gigantic monetary funds	LR	QR	EO	Management of huge financial cost to be incurred on extensive surveying and mapping activities, database development, organizational and institutional arrangements and other essential activities.	<ul style="list-style-type: none"> - Shortage or excess of costly technical equipment(s). - Shortage of technical staff. - Project lead to failure. - Wastage of public exchequer. 	<ul style="list-style-type: none"> - Feasibility studies are recommended to estimate the finances involved. - Distribution of funds for all the activities should be transparent.
	Nahrin & Rahman, 2009	Y	N			

Pakistan is economically a less developed country and is therefore unable to allocate generous and gigantic monetary fund to be spent on acquiring LA related technologies and human resources. The solution is to prepare detailed financial model that do not exist right now in the country. To complement the proposed solution, this study also recommends that Survey of Pakistan (SoP) the national surveying and mapping organization of the country should be involved in LA as the organization has been part of LA activities in the past from year to year. The inclusion of SoP in LA will bring plenty of human and technical resources which no other organization in the country possesses.

Table 3: Social Barriers

Barrier	Evidence			Description	Implications	Measures
IT illiteracy of rural citizen	LR	QR	EO	Rural citizens are not IT proficient.	Rural population cannot harvest potential benefits of land administration system.	Basic IT related capacity building should be introduced for rural population
	et. Kayani al.,2011	Y	N			
Lower level awareness of	LR	QR	EO	Poor communication to aware people about usage and guidance for land administration system	Poor utilization of services and lack of citizens' participation	Government should launch campaigns and programmes to motivate, promote and encourage citizen participation.
	Kayani et. al.,2011	Y	N			
Absence of local culture based portals	LR	QR	EO	Partial representation of cultural norms and values in land administration system.	Citizen's participation is not adequate due to non-representation of local culture and customs.	Government should deliver services pertaining to land records at local level to properly portray local culture.
	et. Kayani al.,2011	Y	N			
Differential access to land records information	LR	QR	EO	Access to land records information is based on income, literacy, and gender.	<ul style="list-style-type: none"> - Promote corruption. - Weak citizen's trust and confidence on land administration system. 	Government should introduce mechanism of fair rights to access to land records information.
	World Bank, 2012	Y	N			
Low literacy rate	LR	QR	EO	Literacy rate of citizen's who will use land administration system is below par.	<ul style="list-style-type: none"> - Poor utilization of services. - Least participation form citizens. 	Literacy rate should be enhanced to benefit majority of the population.
	et. Kayani al.,2011; Olusovi. 2012.	Y	Y			

Barrier	Evidence			Description	Implications	Measures
	LR	QR	EO			
Informal settlement	LR	QR	EO	Increase in informal settlement without prior planning and consideration of land use policy.	<ul style="list-style-type: none"> - Shatter the land use policy implementation. - Increase burden on staff employed on implementation and execution of land administration system. 	<ul style="list-style-type: none"> - Strict compliance of land use policy is required. - To favour formal settlements, planning of new cities/towns should be initiated.
	Burns et. al.,2007	Y	Y			
Lack of IT Capacity building	LR	QR	EO	Deficiency of well-trained IT staff deputed on implementation of land administration system.	<ul style="list-style-type: none"> Weak citizen's trust and confidence on land administration system. Increase delay in processes. 	<ul style="list-style-type: none"> - Government should employ high qualified IT trained officials. - Existing potential candidates should be trained as well.
	Kayani et. al.,2011	Y	N			
Interea	LR	QR	EO			

Barrier	Evidence		Description	Implications	Measures	
	Barry, 2013	Y	Y	Increase in urban population against the expected populations considered while town/city planning.	<ul style="list-style-type: none"> - Promote informal settlements. - Shatter the land use policy implementation 	<ul style="list-style-type: none"> - Strict compliance of land use policy is required. - Planning of new cities/town should be initiated after the increase of certain limit of population.
Lack of readiness	LR	QR	EO	Lack of readiness of land administration system by the citizens.	<ul style="list-style-type: none"> - A large part of population remains unaware of the existence of such system. - Weak citizen's trust and confidence on land administration system. 	Government should promote awareness of the system among majority of population.
	Olusoyi, 2012; Lam, 2005	Y	Y			
Existing conflicts of land disputes	LR	QR	EO	No strategy to resolve existing land related disputes while planning and implementing land administration system	Existing conflicts of land disputes lessen the citizen's trust and confidence on land administration system.	A clear strategy should be adopted to resolve existing land related disputes for smooth implementation of land administration system.
	UN-HABITAT, 2015	Y	N			

A wide range of social issues presented in above table act as barriers to land administration in Pakistan, too. The social barriers include low literacy including IT literacy rate especially in rural areas, lower level of awareness, absence of portal(s), differential access to land records information, increase in urban population and informal settlement as well as lack of readiness. Solution to this situation lies in

creating awareness among citizens regarding formal as well as IT education to realize and harvest the benefits of land administration in the country.

Table 4: Technical Barriers

Barrier	Evidence			Description	Implications	Measures
Poor ICT infrastructure	LR	QR	EO	Information and communication infrastructure to run the successful land administration system is not effective.	<ul style="list-style-type: none"> - Delay in procedures that cause loss of confidence on the land administration system. - More chances of corruptions. - Lower the participation from citizens. - Minimize business activities due to delayed procedures. 	GoP should implement ICT infrastructure.
	Olusoyi, 2012; Lam, 2005; Burns et. al.,2002	Y	Y			
Lack of data standards	LR	QR	EO	Deficiency of standards in land related data.	Heterogeneity that hampers data integration.	Uniform data standards should be adopted.
	Olusoyi, 2012; Lam, 2005, Ali et. al., 2014	Y	Y			
Lack	LR	QR	EO			

Barrier	Evidence			Description	Implications	Measures
	Olusoyi, 2012; Lam, 2005	Y	N	Deficiency in security models related to land administration system.	<ul style="list-style-type: none"> - Support the corruption culture. - Lower the citizens' confidence on the system. 	Security model should be implemented effectively to boost the citizen's confidence and lower the corruption level.
Low E-participation	LR	QR	EO	Deficiency through E-participation that involve citizens into the policy making process by using ICT.	LAS implementation efforts are minimized.	To improve e-participation collaborative management, political motivation as well as governance models should be strong.
	Seo & Hasan, 2015; United Nations, 2014	Y	N			
Power load shedding	LR	QR	EO	Interrupted power supply to systems that are providing land related services to general public.	Delay in procedures that cause loss of confidence on the land administration system.	Government should provide solar energy as an alternative.
	Kayani et. al., 2011	Y	N			
L a c	LR	QR	EO			

Barrier	Evidence			Description	Implications	Measures
	Ali & Ahmad, 2014	Y	Y	No unified platform or infrastructure exist to share the land related information and data.	<ul style="list-style-type: none"> - Working of various offices depends on input from other offices. Improper implementation strategy of land administration. - Delayed decision making processes. 	Infrastructure or platform should be implemented to accelerate information sharing and facilitate citizens.
Lack of access to technology	LR	QR	EO	Limited access to technologies to implement or use land administration.	<ul style="list-style-type: none"> - Citizen's satisfaction level lower down. - Minimize business activities due to delayed procedures. 	GoP should give subsidy to promote wider use of the latest technologies.
	Burns et. al., 2007	Y	N			
Cadastral survey errors	LR	QR	EO	Old cadastral survey errors are multiplied if not handled properly.	<ul style="list-style-type: none"> - Poor governance. - Computerization of records becomes difficult. - Promote corruption culture. 	Actions should be taken to rectify cadastral survey errors before proceeding to computerization
	Hilhorst & Meunier, 2015	Y	N			
Poor maintenance of Land records	LR	QR	EO	<ul style="list-style-type: none"> -Land records are not managed properly. -Problems of duplicate, missing faint and erroneous entries are there. 	<ul style="list-style-type: none"> - Causing severe hardship to citizen. - Promote corruption culture. - Poor governance. - Computerization of records becomes difficult. 	Actions should be taken to eliminate problems of duplicate, missing faint and erroneous entries before proceeding to computerization.
	Deshpande, 2007	Y	Y			
Land	LR	QR	EO			

Barrier	Evidence			Description	Implications	Measures
	Deshpande, 2007, Ali et. al., 2012, Ali et. al., 2014, Molen, 2002	Y	N	Old and outdated land records exist.	Quality of land records becomes poorer due to outdated land records.	Actions should be taken to update old records to facilities the citizens with correct information.
Ambiguous spatial reference	LR	QR	EO	Spatial reference used to register the land data is ambiguous.	- Deprived quality of land records. - Poor governance. - Promote corruption.	Uniform spatial reference should be introduced.
	Burns, 2006	Y	N			
Lack of access to land data	LR	QR	EO	Limited or no access to land record data by the citizen.	Limited social value of land records.	Government should introduce mechanism for equal access to land data.
	Hilhorst & Meunier, 2015	Y	N			
Reduced quality of land records	LR	QR	EO	Quality of land records is poor due to outdated, erroneous and paper-based land records.	- Deprived quality of land records. - Poor governance. - Promote corruption	-Actions should be taken to eliminate problems of duplicate, missing faint and erroneous entries. - Computerization of land records should be boosted.
	UN-HABITAT, 2015, Ali et. al., 2014	Y	N			
Ambiguous demarcation of boundaries	LR	QR	EO	Demarcation of boundaries is ambiguous due to informal tenures and public land.	- Deprived quality of land records. - Poor governance. - Promote corruption	Actions should be taken for clear and proper demarcation of boundaries based on geospatial technologies.
	UN-HABITAT, 2015	Y	N			
Inc	LR	QR	EO			

Barrier	Evidence			Description	Implications	Measures
	UN-HABITAT,2015	Y	N	Complete coverage of land parcels is due to missing, faint, erroneous and duplicate records.	<ul style="list-style-type: none"> - Deprived quality of land records. - Poor governance. - Promote corruption 	Actions should be taken to complete the coverage area of missing, faint, erroneous and duplicate records, based on geospatial technologies.

From the above table, it is clear that a range of technical and technological related barriers exist which hamper LA in Pakistan. The barriers include poor ICT infrastructure, lack of data standards, unified data model and information sharing platform in addition to centuries old, outdated and poorly maintained land records possessing cadastral survey errors and missing information such as spatial reference and land boundaries. Possible solution to the mentioned situation is to consider LA as a purely science driven discipline rather than a judicial subject.

Table 5: Legal Barriers

Barrier	Evidence			Description	Implications	Measures
Legal Complex framework	LR	QR	EO	Legal framework is complicated to construct and implement flexible LAS.	Land registration processes become complex, costly and time consuming.	Legal and social tenure must be backed up by legal framework. Laws should be flexible.
	et. Enemark al.,2014	Y	Y			
Restrictive laws and regulations	LR	QR	EO	Nonexistence of formal regulations to control the land related transactions.	Inflexible operations in LAS.	GoP should implement flexible rules and regulations.
	Nurdin et. al.,2011	Y	N			
W e a	LR	QR	EO			

Barrier	Evidence			Description	Implications	Measures
	Childress et. al., 2004	Y	N	Rules and laws related land rights of individuals are pathetic.	Deteriorate the protection of property rights of individuals.	Rules and laws should strengthen property rights. Though feasibility study should be conducted to reinforce property rights legislation.
Distinct legal administration of classified land	LR	QR	EO	Distinct legal regime for different land classification such as forests, residential, agricultural, etc.	Promotes corruption in land sector. Weaken the land governance.	Unified legal administration should be adopted for all classes of land.
	Childress et. al., 2004; Burns et. al.,2007	Y	N			
Court-based disputes resolutions	LR	QR	EO	Substantial dependence on court-based resolution of land related disputes.	Promotes corruption in land sector and deteriorates the protection of property rights of individuals.	Experts from geography, remote sensing and GIS domains should be included to favour spatial data driven resolution of land related disputes besides legal counsellors.
	Childress et. al., 2004	Y	Y			

Table 5 can be summarized as: LA in Pakistan is a victim of complex legal framework, unnecessary restrictive laws and regulations, weak land rights legislation and distinct legal administration bodies for dealing with classified land. Therefore, people must go to court for resolution of their land related disputes. It is therefore suggested to include professionals of various disciplines such as land surveying and mapping, land administration, GIS and remote sensing in addition to legal experts to assist in resolution of land related disputes.

Table 6: Political Barriers

Barrier	Evidence			Description	Implications	Measures
Political Instability	LR	QR	EO	Elected governments cannot complete their tenures.	Governments are reluctant to invest in long term projects such as LAS.	Continuity of policies should be ensured.
	Kayani et. al.,2011	Y	Y			
Mistrust on political structure	LR	QR	EO	People do not trust political system(s).	Public support for successful land administration is minimal due to mistrust in political system(s).	Government should promote culture to boost public confidence in political system(s).
	Kayani et. al.,2011	Y	N			
Mistrust on administration reforms	LR	QR	EO	People do not trust in public administration reforms agenda.	Hampers LAS implementation which is clearly administration reforms initiative.	Government should take on board all major stakeholders before any reform programme such as LAS.
	Kayani et. al.,2011	Y	N			
Political corruption	LR	QR	EO	Political corruption in land administration means to govern country's key resource i.e. Land by hook or by crook.	<ul style="list-style-type: none"> - Shatter the country's overall governance. - Discourage long term policies formulation. - Compromise transparency and accountability of the institutions. 	GoP should align with anti-corruption agenda of FAO, World Bank and UN-HABITAT.
	Arial et. al.,2011; Burns et. al.,2007;Bell, 2006; Hilhorst and	Y	Y			
Abu	LR	QR	EO			

Barrier	Evidence			Description	Implications	Measures
	Bell, 2006	Y	Y	Misuse of power by political figures to favour legal or illegal land administration related activities.	<ul style="list-style-type: none"> - Damage of tenure security. - Discouraging business and economic activities. 	<ul style="list-style-type: none"> - Government should construct transparent, effective and accountable land administration system. - Computerization of land records should be boosted.

Pakistan has been a victim of political instability since its emergence in 1947. Therefore, political governments and their initiated policies such as LA have always been on stake as new governments seldom carry on policies of the previous governments. This situation has developed mistrust among citizens regarding political structure and administration reforms like LA. Consequently, political corruption and abuse of power being a characteristic of politically instability regions hamper implementation of LA in the country. Part of the solution can be inclusion of citizens before initiating new programmes and policies such as LA. By doing so, it would become difficult for new governments to wrap up initiatives of the previous governments as masses would resist against such actions.

Table 7: Institutional Barriers

Barrier	Evidence			Description	Implications	Measures
Insufficient citizens participation	LR	QR	EO	Participation from the citizens in land administration system is not appropriate.	Casual use of LAS by the common people.	Awareness campaign should be launched to inform and guide the common people about the land administration system.
	Kayani et. al.,2011; Nurdin et. al.,2011	Y	Y			
Insufficient	LR	QR	EO			

Barrier	Evidence		Description	Implications	Measures	
	UN-HABITAT,2015	Y	N	Foreign expert are more involved than local experts.	<ul style="list-style-type: none"> - Foreign experts do not have direct knowledge of local culture and traditions, thus system delivery is not according to local expectations. - Lavish funds are wasted on hiring foreign experts than local experts. 	<ul style="list-style-type: none"> - GoP should promote local talent and experts who certainly possess much more knowledge and experience in the local context. - Foreign experts may be invited to transfer knowledge instead of products.
Lack of implementation strategy	LR	QR	EO	Nonexistence of implementation strategy related to LAS.	LAS remain a paper work.	Integrated implementation strategy should be framed and shared with all major stakeholder groups.
	Nurdin et. al.,2011	Y	N			
Lack of transparency	LR	QR	EO	Deficiency of transparency in management and administration as well as in decision making processes.	Promotes corruption culture in the country.	Transparency, accountability, rule of law should be introduced in organizations engaged in land administration.
	Nurdin et. al.,2011	Y	N			
Limit	LR	QR	EO			

Barrier	Evidence			Description	Implications	Measures
	UN-HABITAT,2015; Nahrin & Rahman, 2009;Bell, 2006	Y	Y	Limited capacity of the institutions working on LAS.	Can yield to inconsistent LAS.	- GoP should sign MoUs with bodies such as FIG, GSDI, ITC and SK to enhance capacity of the institutions involved in LAS. - Survey of Pakistan (SoP) is doing land survey without any role in LAS of the country. GoP must benefit from the expertise of SoP.
Rigid organization structure	LR	QR	EO	Structure and hierarchy of organizational setup is not flexible to adopt changes.	- Hinder integration of services as well as administrative processes. - Promote procedural delays.	Various offices that are providing similar services should be united under one umbrella.
	Nurdin et. al.,2011	Y	N			
Ve	LR	QR	EO			

Barrier	Evidence		Description	Implications	Measures	
	Ali,A, 2009; Nurdin et. al.,2011;Arshad,2015	Y	Y	Poor cooperation and coordination among public sector organizations especially working on land administration.	<ul style="list-style-type: none"> - Responsibility sharing of implementation gets smashed. - Delay in communicating implantation problems and results. 	Government should lay down national coordination strategy.
Decentralization of land administration Institutions	LR Deininger, 2004; Burns et. al.,2007; Nahrin and Rahman, 2009	QR Y	EO N	Numerous organizations working with overlapping land administration roles and responsibilities .	<ul style="list-style-type: none"> - More chances of corruptions. - Citizen's confidence lost due to multiple representation of similar kind of organizations. - Weakens the policies implementation. - Difficulties in land governance. 	<ul style="list-style-type: none"> -Single main body organization should be setup to look after all matters pertaining to land administration. -Various offices that are providing similar services should be linked under one umbrella. -One-Stop portal should be developed to deliver all land related services in an integrated manner.
La ck of	LR	QR	EO			

Barrier	Evidence		Description	Implications	Measures	
	Nurdin et. al.,2011	Y	N	No one is taking responsibility of official matters. Government officials, management, leaders are shifting the responsibility to each other.	- Delay in office correspondence s that also effect on citizen's confidence. - Difficult to follow implementation strategy.	Government should introduce programmes to support the working of public organizations and their officers/official in coordinated manner and to improve sense of responsibility.
Lack of governance	LR	QR	EO	Absence of representation of governance in organizations engaged in land administration.	Haphazard and mal practices emerge.	GoP should play its role to overcome this barrier.
	Byamugisha and Zakout, 2000; Brits et. al 2002	Y	Y			
Administrative corruption	LR	QR	EO	Administrative corruption is type of corruption that happens in public administration.	Hampers implementation of fair and transparent policies, practices and systems.	Government should align with anti-corruption agenda of FAO, World Bank and UN-HABITAT.
	Weinbaum,2006; Arial et. al.,2011; Burns et. al.,2007;Bell, 2006; Hilhorst and Meunier, 2015	Y	Y			
Poor public sector management	LR	QR	EO	Bad management in public sector organizations.	Delay in achieving goals and objectives set by the government.	Principles of equity, participation and efficiency should be introduced into public sector management related to land.
	Bell, 2006	Y	N			

Barrier	Evidence			Description	Implications	Measures
Low skill levels of staff	LR	QR	EO	Staff working to implement and run LAS is not skilled enough.	Impedes LAS implementation.	Skills of staff should be enhanced either by setting up separate training centers or outsourcing the trainings.
	Burns et al.,2007; Burns,2006	Y	N			
Lack of information sharing	LR	QR	EO	Land related information is not shared with other organizations.	<ul style="list-style-type: none"> - Create semantic inconsistency. Promote non-functionality of land registration systems - Deteriorate the coordination among different offices. 	GoP should prepare information sharing policy.
	Ali. 2009; Barry,2013; Arshad, 2015	Y	Y			

The role of institutions is of strategic importance for implementing long term initiatives such as LA in a politically volatile country like Pakistan. The dilemma is, no attention has been paid by previous governments to enhance capacity of the institutions particularly involved in LA of the country. Therefore, limited capacity of the institutions involved in LA with low skill levels of staff and limited reliance on local champions by the Government of Pakistan impedes smooth and successful implementation of the initiative in the country. Moreover, insufficient participation of citizens in LA related activities, lack of governance, transparency, responsibility and implementation strategy in addition to rigid organizational structures, weak coordination, administrative corruption, poor public sector management coupled with lack of land related information sharing develop inertia to implement LA in Pakistan.

4. CONCLUSIONS AND RECOMMENDATIONS

Land administration(LA) is significantly important not only for developed countries but also for developing countries like Pakistan that depend more on land owned resources such as agriculture than industry for its economy. Land administration in Pakistan is more complex than it appears to be, due to diverse nature of issues ranging from policy, economic, social, technical, legal, political and institutional as identified and discussed in section 3.

The key policy issues include existence of non-conducive policies and the policy implementation environment. It is therefore recommended that various department engaged with LA in the country should be aligned and synchronized to facilitate implementation efforts. Pakistan is economically a less developed country and is therefore unable to allocate generous and gigantic monetary fund to be spent on acquiring LA related technologies and human resources. This study recommends that a detailed financial model should be developed and adopted with the consultation of all relevant stakeholders to meet the operational, implementation and maintenance cost of LA. The study also recommends that Survey of Pakistan, the national surveying and mapping organization of the country should be given a well-defined role in LA of the country as it was after independence of Pakistan till 1960.

A wide range of social issues act as barriers to land administration in Pakistan, too. The main social barriers include low literacy rate, lower level of awareness about LA, informal settlements as well as lack of readiness to implement LA in the country. To realize and harvest the real benefits of LA, efforts should be devoted to raise literacy rate as well as awareness of LA in Pakistan. In addition to social issues a range of technical and technological related barriers also hamper LA in Pakistan. The technical and technology related barriers include poor ICT infrastructure, lack of data standards, non-existence of unified data model and information sharing platform. There is need to declare LA as Geo-ICT driven discipline to make quick progress in its implementation. The existing complex legal framework which causes procedural delays in getting desired pace of LA implementation, unnecessary restrictive laws and regulations as well as weak land rights legislation has worsened the situation. Thus, people have to go to courts for resolution of their land related disputes. It is therefore suggested to include professionals of various disciplines such as land surveying and mapping, GIS and remote sensing in addition to legal experts to assist in resolution of land related matters.

Pakistan has been a victim of political instability since its emergence in 1947. Therefore, political governments and their initiated policies such as LA have always been on stake as new governments seldom carry on policies of the previous governments. This situation has developed mistrust among citizens regarding political structure and governance reforms like LA. Consequently, corruption and abuse of power rose in the country that hampers implementation of LA. We recommend that citizens should be involved before initiating new programmes and policies such as LA. By doing so, it would become difficult for new governments to wrap up initiatives of the previous governments as masses would resist against such actions.

The role of institutions is of strategic importance for implementing long term initiatives such as LA in a politically volatile country like Pakistan. The dilemma is, no attention has been paid by previous governments to enhance capacity of the institutions particularly involved in LA of the country. Therefore, limited capacity of the institutions engaged in LA with staff of low level skills and limited reliance on local champions by the Government of Pakistan impedes smooth and successful implementation of the initiative in the country. Moreover, insufficient participation of citizens in LA related activities, lack of governance, transparency, responsibility and implementation strategy in addition to rigid organizational structures, weak coordination, administrative corruption, poor public sector management coupled with lack of land related information sharing develop inertia to implement LA in Pakistan.

This study reveals that several activities need to be initiated and boosted by the Government of Pakistan for breaking the barriers to land administration in the country and hence to support and improve sustainable development, fit for purpose utilization of land resources, good governance, poverty alleviation, economic development, responsible governance of tenure and home land security.

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