

**FROM CLOTH BAGS TO LAND RECORD SERVICE CENTERS – EXPERIENCES FROM A  
WORLD BANK FUNDED PROJECT IN PUNJAB, PAKISTAN**

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## **Abstract**

In this paper I discuss key lessons learned that enabled the successful transformation from a manual land record system to a modern Land Record Management Information System (LRMIS) in Punjab Province, Pakistan. The LRMIS Project was implemented from 2007 to 2016 by the Board of Revenue in Punjab Province with support from the World Bank.

The manual land record management system relied on local land revenue officers (called Patwari) who physically carried all land related documents in a cloth bag, making their services non-transparent, inaccessible and prone to corruption. To tackle these issues, the Government established and improved business processes for land administration, developed and deployed a Land Records Management and Information System, and improved service delivery. More than 150 Land Record Service Centers were created to replace more than 8,000 Patwari. The Service Centers now manage all land records digitally in a more transparent and accessible manner, requiring less time and money to obtain land related services.

I assessed key success factors that enabled this transformative process through a desk review and project visits. Among the success factors are the inclusion of the Patwaris in the reform process, inclusion of beneficiaries in project design, building local capacities, following an innovative and flexible implementation approach, and having strong political support. Besides success factors, I will also identify areas where additional work is required to complete the reform process.

## **Key Words:**

Pakistan, Punjab, land record management, land tenure, property rights

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## **1. Introduction**

Agriculture contributes 25% of Pakistan's current GDP of US\$ 271 billion. Almost half of all land (47%) is agricultural land. Seventy four percent of women (74%) and 34% of men are employed in the agricultural sector and therefore depend on land for their livelihoods. Overall, 61% of the population lives in rural areas where land is the key asset for land owners and tenants.<sup>1</sup>

Punjab is the most populated province of Pakistan, with 100 million inhabitants (53% of Pakistan's total population). Punjab has a total area of 205,345 km<sup>2</sup>, and 68% of the population lives in rural areas.<sup>2</sup> In 2011 the population density was 459 persons per km<sup>2</sup>, which is expected to reach a density of 884 persons per km<sup>2</sup> in 2050.<sup>3</sup> The Province's economy is heavily agricultural. However, land distribution is highly unequal and the majority of land is in the hand of a few. Only 37% of rural households owned land in 2000 and 20-40% of the rural population was landless or near landless (USAID 2016).

Unequal land distribution is especially severe for women. The Constitution of Pakistan grants land rights to all Pakistani and Islamic laws specifically recognize inheritance rights of women. However, women's land rights are seldom granted in reality, leaving many women landless and their livelihoods at stake due to the risk of becoming landless (RDI 2009).

Policy makers and development partners have realized the importance of land governance to address the outlined challenges. Land governance is mentioned in all key governmental strategy documents. Pakistan's Vision 2025 highlights land governance and underlines the importance of land for an enabling environment for the private sector as well as for urban development. The Punjab Growth Strategy 2018 complements Vision 2025 and proposes a modern land records system to improve land markets and recommends legal reforms with regard to urban land records.

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<sup>1</sup> All data derived from <http://data.worldbank.org>

<sup>2</sup> Economic Survey of Pakistan 2011-12, Punjab Development Statistics 2014, Pakistan Demographic and Health Survey (2012-13), and population projections 2013 by NIPS. [http://www.pwd.punjab.gov.pk/population\\_profile](http://www.pwd.punjab.gov.pk/population_profile)

<sup>3</sup> Population Welfare Department Punjab: Population situation of Punjab. <http://www.pwd.punjab.gov.pk/sites/pwd.punjab.gov.pk/files/Population%20situation%20of%20Punjab.pdf>

Three main entry points for reforming land governance in Pakistan are discussed in the literature. First, policy and legal reform are believed to contribute to political and economic development objectives. Second, linking customary to statutory land rights is discussed as an approach, which would specifically enhance women's land rights. A third approach under discussion the reform of the current land administration system to improve tenure security (USAID 2016).

In this paper I will discuss the approach of the Land Record Management Information System (LRMIS) project in Punjab Province. The project followed the approach of reforming the current land administration system. I will focus on the key lessons learned and success factors. While several key elements that led to the success of the project were identified, it becomes clear that only reforming the land administration system does not tackle some of the most pressing issues in Pakistan, e.g. the unequal land distribution and the general neglect of women's land rights. The reformed land administration system is an important step to reduce poverty and reach equality but more needs to be done to achieve the overarching goals, which go beyond making land records more accessible and transparent.

## **2. History of land administration systems in Pakistan**

The land records management system in Pakistan is based on first attempts of Sultan Ala-uddin Khilji to introduce a system of land administration in the thirteenth and fourteenth century. The system was reformed by Sher Shah Suri during his rule of the Indian sub-continent from 1540 to 1545. Land was measured, categorized and crop rates were fixed. Reforms of the system took place during the rule of Mughal King Akbar from 1556 to 1605. Land record management was regularized and methods for agricultural tax assessments were reformed. The main aim of the land administration system throughout the years was to establish a mechanism of land revenue assessment and collection (Qazi 2006, Ali & Nasir 2012).

Under British colonial rule from 1757 to 1947 large scale cadastral surveys were introduced. These included the demarcation of boundaries of individual land holdings. A number of land related legislations, including the Punjab Land Revenue Act of 1887 and 1967, were enacted under the colonial rule as well. Various categories of revenue officers were introduced, among them the Patwaris who were made responsible for land revenue collection at the lowest administrative levels all over the country (UNHABITAT 2011). The prevailing land administration system in Pakistan was adopted from the British with 'very little modification' at the time of independence in 1947 (Qazi 2006).

### **3. Institutional setup of the former land administration system in Punjab**

The administrative hierarchy in Pakistan reaches from the lowest level of the Mauza<sup>4</sup>/Village level, to the Patwar Circle, the Kanungo level, the Tehsil level, the District level, the Division level, to the Province level, before reaching the highest level, the national country level.

A Patwar Circle is a revenue area comprised of several villages with around 2-8 mauzas. This area falls under the responsibility of the Patwari, the lowest revenue officer. The Patwaris record land ownership and use and capture this information on manual land records and maps. They have the authority to make changes relating to ownership, use and taxation in the original land records.

The Patwaris are the sole authority to issue copies of land records ('fards'). Fards entail information about the land parcel and the land owner. They are of high importance as they are required for many other government related services (e.g. in court cases, to obtain domicile certificates, to obtain loans etc.). It is estimated that land owners need to access fards between 2-10 times a year (Qazi 2006).

The Patwaris are required to keep land records with them at all times. Land records, maps and other documents are carried by the Patwari in a cloth bag ('basta'). Within the basta the Patwari carry 17 registers out of which many are land related. Among them are a registers documenting current land ownership ('Haqdarar Zamin'), corrections of errors in the Haqdarar Zamin ('Fard Badar'), family trees of land owners, sales and other land transactions, information of land tenants, information on soil, and information on the crops grown on different land parcels (Qazi 2006). Each land parcel in the different registers can be identified by a parcel identification number and is identified on a map of each village.

Among the duties of the Patwaris is to update the Haqdarar Zamin. It is updated every four years to incorporate changes and mutations<sup>5</sup> that have taken place since the last Haqdarar Zamin was created. The correction of errors in the Haqdarar Zamin register is documented in the Fard Badar register once an error is detected. Land owners have to report mutations orally or in writing to a Patwari who records and processes the mutation request (Ali & Nasir 2012).

Besides land related duties, the Patwaris are also responsible for other tasks, including keeping weather records, collecting crop harvest information, reporting village crimes, and updating registers of voters. It is estimated that there are about 14,000 Patwaris in Pakistan (Qazi 2006). Information from the Patwaris' work is consolidated at the higher administrative levels by different officers.

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<sup>4</sup> Administrative unit, corresponding to a specific land area within which there may be one or more land parcels. It may refer to a single large village or two to three small villages.

<sup>5</sup> Mutations refer to land transactions such as sale, gift, mortgages, lease, subdivision etc.

#### **4. Issues of the former land administration system in Punjab**

A key concern about the Patwari system is high transaction costs that land owners face when they require land related services. Patwaris are hard to reach as they have a big work load, which makes them constantly occupied. Given that they are responsible for several villages requires them to travel often, making them less accessible. Further, corruption is a common concern, e.g. when land owners pay for their transportation or pay for illegal services, which are hard to monitor as they are the sole custodian of land records at the lowest administrative level. These high transactions costs affect especially the poor.

The fact that the Patwaris are the sole custodians of land records results in a lack of transparency. As described, all relevant land registers are kept by the Patwaris only and it is mandatory for the Patwaris to travel with the registers all times, making them not accessible for others. Land records are only issued by the Patwaris when they make themselves available. As a result of the non-transparent nature of the paper based system, illegal annotations of land have been reported (Qazi 2006).

Land disputes are exacerbated by the Patwari system as well. The system is described as inaccurate and complex which results in disputes over land rights. Some of the disputes are caused by the inability of the Patwaris to update the Haqdarar Zamin register and village/parcel maps, resulting in an inaccurate and unreliable land record management system, which is described as 'a mess' in the literature (Qazi 2006). Due to the inaccessibility of Patwaris and the difficulty to obtain their services, land related court case are delayed as land records cannot be presented by disputing parties in time.

Due to cultural practices, women are not able to approach the male Patwaris. Women are allowed to inherit land from their fathers but they cannot record a mutation based on inheritance with the Patwaris. Male relatives may only record mutations on behalf of a woman, which poses a risk for women if relatives record land in their names instead of recording women as the rightful owners.

Formal land market transactions are rare due to the high transaction costs and disputes about accuracy of land records. As a result land markets are underdeveloped. The low mobility of land contributes to the highly unequal distribution of land in Pakistan.

#### **5. Land Record Management and Information System (LRMIS) Project**

The Land Record Management and Information System (LRMIS) project was implemented by the Board of Revenue (BoR) in Punjab Province from 2007 to 2016. The project was mainly financed by the World Bank.

The Project Development Objective was to improve land record service delivery in Punjab. The expected outcomes were increased access to land records at lower transaction cost for the beneficiaries, increased level of tenure security of land-right holders, and increased transparency of land transactions.

Within ten years of implementation, the project was able to digitize more than 50 million paper-based land records, benefitting more than 20 million land owners. More than 150 Land Record Service Centers were established, covering all Districts in Punjab. Almost 2,000 Service Center staff were trained to fulfill their duties. The land record management responsibilities of about 8,000 Patwari were removed legally and in practice. The Government has now timely access to accurate data on land ownership and land revenues. Citizens benefit from a more accessible, more transparent and cheaper system to obtain land related services.

The following points highlight some of the key achievements of the project.

**Revised legislation.** Legal and policy amendments were made to recognize the digital land record management system. The Punjab Land Revenue Act (1967) and the Punjab Land Revenue Rules (1968) were amended accordingly. The manual issuance of land records was abolished and the digital process to conduct mutations was recognized by law.

**Established Land Record Service Centers.** The Project has established 143 Service Centers from 2011-2014 and an additional 8 in 2016. The Service Centers have separated seating arrangements for women and men. To serve the needs of women, women's counters were established in many of the Service Centers.

**Improved service delivery.** Overall, the satisfaction of clients with the Service Centers stands above 90% compared to a satisfaction rate with the land administration system under the Patwari of below 30%. More than 80% of Service Center visitors state that they prefer the Service Centers over the Patwari system (APEX 2016).

**Decreased time.** The time required for issuance of land records and registering mutations has decreased. The average time spent for a service obtained from a Service Center, including traveling, waiting in queue and at the counter, is around 2 hours as compared to several days or weeks under the Patwari system (APEX 2016). The sole processing of land record issuance and mutations in the software takes several minutes only.

**Decreased costs.** Costs for obtaining copies of land records and registering mutations have decreased. While the overall expenses to obtain services from the Patwaris is estimated to be PKR 6,241 (US\$ 59), the costs for obtaining services from the Service Centers is around PKR 2,550 (US\$ 24) (APEX 2016).

**Increased tenure security.** The perceived tenure security of land owners has improved. More than 70% of Service Center clients mentioned that the new system provides higher tenure security than the Patwari system (APEX 2016). Clients mentioned that the non-transparent nature and incorrect information on land records led to many disputes while they perceive that the transparency and accuracy of LRMIS contributes to reducing these source of disputes. Around 5 million errors on manual land records made by Patwaris<sup>6</sup> were corrected in the new system, contributing to higher tenure security. The digital land records are accepted in formal land dispute resolution processes, contributing to faster resolution of land disputes, leading to increased tenure security. It can therefore be argued that this objective of the project was achieved.

**Improved women's land rights.** Women's land rights have improved as it is now mandatory for women to visit the Service Centers to witness mutations of land records that concern them. In many of the Service Centers women's counter were established to specifically serve women. Gender was mainstreamed in all trainings of Service Center staff and awareness raising campaigns have specifically targeted women.

**Improved transparency.** Land records can be assessed much easier in the new system. Staff cannot refuse to issue a land record to a land owner like the Patwaris could. Further, a website and mobile application was made accessible to the public, which enables beneficiaries to obtain land related information remotely. Around 200,000 individual users have visited the website by mid-2016.

**Punjab Land Record Authority.** Based on the successes achieved by the Project, the Government created the Punjab Land Records Authority, which is responsible for managing the LRMIS after the World Bank financing for the project came to an end in 2016.

## **6. Lessons learned from the LRMIS project**

The following points describe the key factors that enabled the above shown achievements. Understanding the success factors that led to these achievements is fundamental to extract lessons learned that can enable governments, donors and other stakeholders to successfully implement similar projects that include the transformation from a manual to a digital land record management system. Based on project reports, visits of Service Centers and detailed discussions with the PMU, the following points describe key success factors and lessons learned.

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<sup>6</sup> E.g. wrong spelling of names, wrong parcel numbers, etc.

**Learning from experiences.** The transformation process was thoroughly planned, based on four pilot projects. A pilot to computerize land records was conducted by the Board of Revenue from 1999-2003 in Kasur District. The pilot revealed issues about the newly developed land record management software, data entry costs, time schedules and training needs. Another pilot started in 2001 in Lahore District to computerize land records, validate data and develop GIS support systems. This pilot revealed information about the need for inclusion of Patwaris, public education and management issues. Pilots in Rahimyar Khan and Gujrat District continued in 2005 to pilot the computerization of land records. These pilots provided important information about training needs and implications of transitioning from the manual to the digital system. International experiences were also included through a comprehensive business process re-engineering assessment during the project preparation. Experiences of land records improvement projects from India and Thailand were analyzed and included in the project's design. The inclusion of all these experiences from other pilots and international experiences led to a thorough planning process.

**Innovation and flexibility.** The project approach was innovative and flexible throughout the project implementation. One of the key innovative approaches was the procurement process to determine the most suitable provider for the LRMIS software. Instead of selecting one service provider, the PMU decided to follow a two-step approach. In the first step, four different service providers were contracted to develop a prototype software. In the second step the most appropriate service provider was selected and lessons learned from the other service providers were included in the further software development process. Another example for innovation is the planned change from the current decentralized LRMIS software to a centralized software. The decentralized software approach resulted in several issues, such as different software versions being used in different Service Centers, time consuming manual data uploads to the central server, etc. The centralized software would resolve these issues and is being implemented on a pilot basis to obtain lessons learned and inform a province wide roll out. These two examples show the innovative and flexible approach of the PMU which have been fundamental for the successful implementation of LRMIS and are proof for the sustainable approach taken by the Board of Revenue.

**Inclusion of Patwaris.** One of the key obstacles to the project was to manage the process of moving responsibilities from 8,000 Patwaris to the Service Centers. Therefore the Project Management Unit (PMU) developed a strategy to make the Patwaris part of the change process and remove their responsibilities gradually. Patwaris (and other stakeholders) were consulted about the project through more than 15 conferences and project briefing sessions with more than 5,000 participants. Patwaris were closely involved in entering the manual land records into the digital system. For this purpose they were trained in operating the software to enter the data. However, despite this inclusive approach the project faced resistance from Patwaris throughout the project. Besides the fear of losing income and prestige, they complained about lack

of logistical support, small allowances, lack of capacity building and lack of field offices. Negotiations between the Patwaris and Punjab's Cabinet Committee came to an agreement to provide the Patwaris with capacity building, field offices, stationary allowances, and other measures. This measure resulted in a higher satisfaction of Patwaris and better cooperation with the project. The inclusion of the Patwaris, the ongoing dialogue with them and the provision of incentives have contributed to a decreased resistance and increased collaboration despite the fact that the Patwaris mostly do not benefit from the Service Centers.

**Local capacity building** Local capacities were crucial for the success of the project. The Project conducted more than 30 workshops with more than 5,000 internal key stakeholders, namely Officers of the District Administration and Revenue functionaries, including the Patwaris, between 2011 and 2014. Almost 2,000 Service Center staff were trained during standard 9 week trainings. A key success factor for the project is that the trainings were conducted in house. A specific training center was created in Lahore to facilitate the trainings. A main lessons learned is that it is of fundamental importance to not only train the Service Center staff in the technical operation of the software but also in soft skills, focusing on communication with clients, especially with women.

**Inclusion of beneficiaries.** A key lesson learned is that the beneficiaries from the Service Centers need to become an integral part of the project and need to inform the design and constant development of the project. Beneficiaries were targeted through more than 600 community meetings with approximately 50,000 participants and street theatres in public places, reaching about 30,000 beneficiaries. Both approaches enabled beneficiaries to ask questions and express their views and ideas about the project's design. The consultation of beneficiaries did not stop after this initial phase to inform the project's design. Throughout the implementation beneficiaries were able to provide feedback to the PMU for constant improvement. A feedback mechanism with several communication channels was established. Clients can provide feedback via questionnaires directly in the Service Centers in specific, anonymous feedback boxes. Feedback and complaints can be submitted via a toll free phone line or via SMS. Clients are also proactively contacted by the Service Centers to obtain their feedback. The client's feedback from the different channels led to several adjustment, including following up on accusations of corruption, improved seating arrangements and improved service delivery by adjusting training programs. This participatory approach is among the key success factors for the acceptance of the new system and the high satisfaction rates by the clients.

**Political economy.** Political will and support were crucial for the successful implementation of the project from the beginning. The project became part of the permanent agenda of the Punjab District Coordination Officer Conference as well as of the Board of Revenue Full Board Meeting. The Chief Minister of the Province of Punjab has supported the project throughout its lifetime and provided political support from

the highest level in the Province. This created an enabling environment through which fundamental legal changes were made. High ranking officials were seconded from the Board of Revenue to the Project Management Unit to ensure a successful implementation. The eventual creation of the new Punjab Land Record Authority as a direct result from the project is another proof for the high political support.

## **7. Conclusion**

A thorough project planning approach based on experiences was fundamental for the success of the LRMIS project. Experiences from pilots, other countries and an in depth analysis of the current system formed the basis for the project's design. The project was implemented in an innovative and flexible way which contributed to its success and sustainability. The importance of making the Patwaris an integral part of the transformation process and establishing an ongoing dialogue with them cannot be overemphasized. Including beneficiary views in the project design and implementation through consultation and diverse feedback mechanisms were crucial, resulting in high satisfaction levels of beneficiaries. The continued capacity building of Service Center staff, especially in soft skills, has contributed to the high satisfaction levels of beneficiaries as well. Finally, all of the above success factors would not have been possible without the political will and commitment, which ultimately led to the creation of the new Punjab Land Record Authority.

The outlined success factors and lessons learned can be used for similar projects in other provinces of Pakistan and in urban areas of the Punjab province as well as in similar situations in South Asia and other regions worldwide. However, these lessons need to be adapted to the local context.

Despite the successes that were achieved by the project, some questions remain open. Some of the key land related challenges in Pakistan were not resolved yet by the project's approach. It is not yet clear if the new land record management system contributes to a more equal land distribution. It is also not yet clear if the perceived tenure security leads to higher investments in land by farmers or better accessibility to credits. Women's land rights were improved under the project but it is doubtful that the general thinking and practice about women's land rights was changed by the project. Further measures are required in the future to complement the project's successes in these regards.

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