

# Knowledge, Attitude & Practices of the property owners regarding Digitalization of Land record in Punjab, Pakistan

## Muhammad Shahid

Ph.D. Scholar,  
Department of Sociology,  
GC University, Faisalabad

## Dr. Muhammad Shabbir Ch.

Assistant Professor  
Department of Sociology,  
GC University, Faisalabad

## Dr. Zahira Batool

Associate Professor  
Department of Sociology,  
GC University, Faisalabad

## Dr. Babak Mahmood

Associate Professor  
Department of Sociology,  
GC University, Faisalabad

## Abstract

Digital governance needs the knowledge of requirements of the society which is offered to use information communication technologies (ICT). Digital Knowledge has play key role in the knowledge of society and the financial system of that society. The government of Pakistan has recently declared ICT sector as the thrust sector. Government of Pakistan trying to meet the international standards in land revenue department by making the department digitalized. It is necessary to assess the knowledge, attitude and practices of people regarding digitalization of land record. So, present study focused on the knowledge, attitude & practices of the people regarding digitalization of land record in Punjab, Pakistan. The present study was conducted in three districts (Faisalabad, Rawalpindi and Multan) of Punjab. A sample of 450 respondents was drawn through purposive sampling technique. Respondents from each District were taken by using proportionate sampling techniques. Descriptive statistical technique and multiple linear regression model were applied for data analysis. Results showed that majority of the sampled population had knowledge about two services of digitalization of land record i.e. acquisition of fard (80%) and mutations (72%), while some of them had knowledge about other services i.e. fardbadar (37.1%) and grievance redressal (27.6%). Similarly, it was observed that mostly respondents used LRS for acquisition of Fard (67%) and Mutations (39.8%). Usage of other services i.e. 'fardbadar' and 'grievance redressal' was relatively lower. However, mostly respondents were never satisfied digitalization of land records system (46.5%) and with routine of officials of the Property Revenue Credentials Branch (42.4%). A large part (61.1%) of the selected population told that it is very difficult to approach to the officials and this system is much complicated (41.3%) and less convenient for public. While young, educated and urban community had more utilization of these services. It was observed that the awareness level of people was low about procedure of getting land records (fard, mutation, FardBadar, etc.), So awareness campaign should be launch at village level.

**Keywords:** Digitalization, Services, Knowledge, Utilization

## Introduction

Digital-Government has a type of government which realize on digital base services to its citizens, all basic are depends on e-services. All the procedure of govt. functionaries should be through Digital Media like

phone, whatsapp, messages and on internet also is the key of digital –Governance other it is not possible in absence of internet, it facilitate the general public of that state also. Communications might be get information from web, application, and software obtaining from the World Wide Web (Sharma & Gupta, 2003; Sharma, 2004; Sharma, 2006).

Digital-Government services systems plan to provide many profit such as enhancing the processes and operations of government services and improvement information contribution among the government and open (Andersen, 2009). It also gives general public the services in skilled way, carefully, strongly, attentively, and with general moment preserves finances. However, the practice of digital-Government services is not essential on-line information procurement, it obliges a thoughtful understanding of general public' requirements and nuts and bolts and full planning to avoid out of the blue outcome (Carter & Bélanger, 2005).

Pakistan current property testimony structure is not too far removed from the structure in place during Akbar's regime. There is about 190 million property testimony as rumor has it containing the information of about 50 million property owners in Pakistan. Property record is in paper form which is compiling in handbook form. There are two type of property positioned in Punjab property i.e. Urban and Rural. 1st one consist of different colonies, Housing Schemes, Defense Societies. Societies Land record kept in their own hand like , Defiance House Society's record has in Society custody while the 2nd is Rural property record which now mostly Computerize and in the hand of Patwaris which is BPS-09 official and also custodian of Land record and its implementation. More than 14 thousand of Patwaris post in whole Pakistan, whose primary duty to maintain the revenue record of his circle which consists of two or more states or villages. Punjab has more then 7 thousand Patwaris are working under the command of BOR Punjab (Board of Revenue Punjab Lahore) (Qazi, 2006).

The present property testimony has been handwritten and very expensive nature and incorrect. There have been more than decades needed for the preparation of this record because of manual nature. Property settlement has been delayed for time consuming of record maintenance. The completion of record like Map, Surveys, and Registers about the property due to handmade had taken lot of time and had very expensive while due to automation it is prepare within minutes or hours, so the work of decades had been done within minutes.

Qaisar and Khan (2010) investigated that in one of

community sector association of our country, during the execution of digital-Government and next study of the same association paying attention on how the issues were conquer by introducing different plans and to what area such plans dig out to be productive. The judgment of the investigation cleared that the execution of digital-Government is somewhat hard somewhere as fundamental ICT infrastructures and economic capital are not accessible in institutions. It has been suggested digital-Government could not be managed correctly in anticipation of the issues should be addressed and managed well. According to Ali et al. (2014), Property Management Scheme is an instrument with legal authority of Management and financial advancement. There is Property Management Scheme in Pakistan which is totally realizes on paper work or paper documents in the state at management level. This out dated exercise creates mistakes to obtaining information in the public. The safety, advancement of financial system and advancement of different framework advancements, this is the reason that demands to new technology in present system for enhancing the standard of authentication, safety and supportive system providing to the public. The struggles which have been taken for betterment of public on world level activities accepted, quality of Property Management Schemes are internationally recognize by using of technology.

Ali and Nasir (2010) stated that the current present property management system in Pakistan reliable in tax collection for the financial year property agriculture tax and the collection of dues for finance purposes. The present system is a manual system in which Patwari of low grade official is play important role, for maintaining, for making and also custodian of the record. This record is papered on paper with hard work and there are no of mistake in it. Local management advised to the higher authorities that the handle of property relates issues, cadastral map, property record registers and other documents prepared manually by the Patwari are in Question mark on their authenticity. This experiment highlights on trustworthiness of revenue record, so the revenue record should change for securing the owner ship of the public. This was the critical analysis of legal authentication of property relates documents reliability, so these should be in weaken form and also not able to be in used operationally in the society. After securing the records, it could be used for public. Institutionalizing and scientific problems are discussed in requisites of strong point and weak point of the present structure in KPK (KhaberpakhtunKhwah), (NWFP) of Pakistan.

Digital governance needs the knowledge of requirements of the society which is offered to use information

communication technologies (ICT). Digital Knowledge has play key role in the knowledge of society and the financial system of that society. It works as the heart work in human body in advancement of any society. Pakistan financial system has in developing stage and due to its initial stage it development process play vital role as other developing states in the world. Pakistan has shows his strengthening position in IT department. Digital technology of Pakistan is unique position in the globe and IT department is moving ahead in Pakistan day by day (Govt. of Pakistan, 2017).

The government of Pakistan has recently declared ICT sector as the thrust sector. Government of Pakistan trying to meet the international standards in land revenue department by making the department digitalized. It is necessary to assess the knowledge, attitude and practices of people regarding digitalization of land record. So, present

study focused on the knowledge, attitude & practices of the people regarding digitalization of land record in Punjab, Pakistan.

### Methodology

This section provides information on the nature of the research study and research design. It described population, sample, sampling techniques as well as development of the research tool and its administration. Different statistical tests that were used for data analysis were also mentioned.

The present study was conducted in three districts (Faisalabad, Rawalpindi and Multan) of Punjab. A sample of 450 respondents was drawn through purposive sampling technique. Respondents from each District were taken by using proportionate sampling techniques.

### Sample size

Sr. No.	Name of district	Population	Proportion (%)	Selected proportion (respondents)
1	Faisalabad	7,873,910	43.68	197
2	Rawalpindi	5,405,633	29.99	135
3	Multan	4,745,109	26.33	118
	Total	18,024,652	100.00	450

Data were collected with the help of a comprehensive interview schedule. Descriptive (frequency, mean, standard deviation) and inferential (chi-square and

gamma) statistical techniques were applied for data analyzation.

### Results and Discussion

**Table 1: Socio-economic attributes of the sampled population**

Age groups (in years)	<i>f</i>	%
Young (Up to 35)	123	27.3
Middle (36-50)	230	51.1
Old (Above 50)	97	21.6
Total	450	100.0
<b>Background</b>		
Rural	290	64.4
Urban	160	35.6
Total	450	100.0
<b>Qualification</b>		
Illiterate	107	23.8

Primary-Middle	101	22.4
Matric	154	34.2
Above matric	88	19.6
Total	450	100.0
<b>Income (Rs.)</b>		
Up to 25000	166	36.9
>25000-50000	174	38.7
Above 50000	110	24.4
Total	450	100.0

Age: Table 1 further indicates that 27.3 percent of the respondents belonged to young age group (up to 35), while around a half (51.1%) of them belonged to middle age group (36-50), whereas remaining 21.6 percent of them belonged to old age group (above 50).

Background: Table 1 depicts that a major part (64.4%) of the respondents belonged to rural areas, while around one-third (35.6%) of them belonged to urban areas.

Education: Education is the process for bringing positive change in the behavior of individual (Amir, 2003; and Khan, 2008). It is noticeable that an educated person is always keen and logical towards innovations. It is extremely vital to get education if one wants to achieve success in life (Sahni, 2000). Education has an enormous impact on the human society. It guides and trains human mind to think and take right decisions. Education is necessary if a nation aims to achieve growth and development (Geol, 2007). In the present study almost, 24 percent of the respondents were illiterate, 22.4 percent of

them had primary-middle level education, around one-third (34.2%) of them were matriculated and remaining 19.6 percent of the respondents had above matric level education. According to Bokhari(2016), the data shows that 78% of total entries are those of small farmers who own less than four acres. Being illiterate, these farmers are not familiar with benefits of land record computerization, and have mostly been depending on patwaris for any sale or purchase of land.

Income: Table 6 represents that almost 37 percent of the respondents had up to Rs. 25000 monthly household income, while 38.7 percent of them had >25000-50000 monthly household income and around one-fourth (24.4%) of them had above Rs. 50000 monthly household income. According to Mwangakala (2012), age and education level directly affected citizen's willingness and continuance intention to use internet/digitalization of land record websites, while income level did not have an effect in the citizen's willingness to use government websites.

**Table 2: Distribution of the selected population according to their knowledge about digitalization of land record**

Response	<i>f</i>	%
Yes	391	86.9
No	59	13.1
Total	450	100.0

Table 2 represents the respondents' knowledge about digitalization of land record. The result shows that a major part (86.9%) of the respondents had knowledge about digitalization of land record, whereas only around thirteen percent of them never having knowledge about

digitalization of land record. According to Govt. of Pakistan (2017) reported that majority of the Pakistani population had knowledge about digitalization of land record.

**Table 3: Distribution of the selected population according to their knowledge and adaptation of services provided through digitalization of land record**

n = 450

Services	Knowledge				Practice			
	Yes		No		Yes		No	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Acquisition of Fard	360	80.0	90	20.0	301	66.9	149	33.1
Mutations	324	72.0	126	28.0	179	39.8	271	60.2
FardBadar	167	37.1	283	62.9	109	24.2	341	75.8
Grievalredressal	124	27.6	326	72.4	102	22.7	348	77.3

**Knowledge:** Above table represents the respondents' knowledge about services provided through digitalization of land record. It was found that knowledge about “acquisition of fard” and “mutations” services was highest (80% and 72.0% respectively.) amongst other services offered by LRS. Knowledge about 'fardbadar' and 'grieval redressal' was relatively lower (37.1% and 27.6% respectively).

**Practice:** Above Table represents the respondents' practices of services provided through digitalization of land record. It was

observed that almost 67 percent of the respondents used LRS for acquisition of Fard, whereas 39.8 percent of them used this services for 'Mutations'. Usage of other services i.e. 'fardbadar' and 'grieval redressal' was relatively lower (24.2% and 22.7% respectively). According to Bokhari (2016), Pakistan has been much behind in adopting the digital technology in South Asia. It initiated the online transfer of land records in 2007 with a World Bank-aided project in Punjab where tampering with records was extremely high.

**Table 4: Distribution of the selected population according to extent of use of services provided through digitalization of land record**

Response	<i>f</i>	%
Mostly	44	9.8
Occasionally	40	8.9
When needed	288	64.0
Never	78	17.3
Total	450	100.0

Table 4 signifies the extent of use of services provided through digitalization of land record. It was noted that almost ten percent of the respondents mostly used digitalization of land record services, whereas 8.9 percent used occasionally and a considerable proportion (64.0%) of the respondents

reported that they were used digitalization of land record services whenever required and remaining 17.3 percent of them were replied negatively.

**Table 5: Selected population's satisfaction with digitalization of land records system and satisfaction with routine of officials of the Property Revenue Credentials Branch**

Satisfied	Satisfaction with digitalization of land records system		Satisfaction with routine of officials of the Property Revenue Credentials Branch	
	<i>f</i>	%	<i>f</i>	%
Fully Satisfied	87	19.3	144	32.0
Dissatisfied	205	45.6	191	42.4
Indifferent	158	35.1	115	25.6
Total	450	100.0	450	100.0

Table 5 represents the selected population's satisfaction with digitalization of land records system. It was perceived that a major quantity (45.6%) of the sampled population were dissatisfied with current land records system, whereas remaining 19.3 percent of them fully satisfied and 35.1 percent of them had indifferent satisfaction with current land records system. Almost similar findings were presented by Gallup (2009), who found that 42 percent population in Punjab were dissatisfied with current land records system, whereas remaining 29 percent of them satisfied and 29 percent of them had indifferent satisfaction with current land records system.

Table 5 also signifies the selected population's satisfaction routine of officials of the Property Revenue Credentials

Branch. It was found that a major percentage (42.4%) of the respondents were dissatisfied with routine of officials of the Property Revenue Credentials Branch, whereas remaining 32.0 percent of them satisfied and 25.6 percent of them had indifferent satisfaction with routine of officials of the Property Revenue Credentials Branch. The results of Gallup (2009) are similar to those of the current research who established that 42% owners were dissatisfied with routine of officials of the Property Revenue Credentials Branch. Whereas remaining 32.0 percent of them satisfied and 26 percent of them had indifferent satisfaction with routine of officials of the Property Revenue Credentials Branch.

**Table 6: Selected population's opinion, about the delivery of services are difficult or Easy to approach to receive the documents.**

Response	<i>f</i>	%
To a great extent	275	61.1
To a little or no extent	95	21.1
Can't say	80	17.8
Total	450	100.0

Table 6 shows that a major part (61.1%) of the selected population told that it is very difficult to approach to the officials. It was also denoted that it was very difficult to utilize the services given by the official is trouble. These are the central category of People who wants to get some credentials from the ARCs.

UNH (2015) also reported that the procedure to get

property credentials by Property owners is more and more difficult, due to a number of reasons, such as a few designated Government officials (e.g. Patwari - the custodian of land revenue record) have full custody of the records and normally these officials are not easily available to the public.

**Table 7: Selected population's opinion, how trouble-free or much complicated to receive the property related documents**

Response	<i>f</i>	%
Complicated	186	41.3
Trouble-free	166	36.9
Can't say	98	21.8
Total	450	100.0

Selected population's opinions were divided on trouble free of attaining property related documents. 41.3 percent observed it is complicated, 36.9 percent said that it is trouble-free, and remaining 21.8 percent of the sampled population cannot say.

**Table 8: Selected population's thinking that their record is secure in this system**

Response	<i>f</i>	%
Secure	121	26.9
Unsecure	109	24.2
No response	220	48.9
Total	450	100.0

Safe property system in addition to land liberties are the basic protection to the community. Secure that serve as cornerstones in support of the understanding of people rights and poor quality decrease. Safe property system in sex biasness, Public elimination of at risk, whole Public and financial distributions, is assessing to an unsafe approach to property system. (UNH, 2015).

Table 8 depicts that 26.9 percent of the respondents had thinking that the digitalization land record system is secure, while 24.2 percent of them observed that this system is unsecure and 48.9 percent of the respondents gave no response on the security of this system.

**Table 9: Selected population's thinking that this system is clear/simple than the manual**

Response	<i>F</i>	%
Clear	134	29.8
Not clear	98	21.8
Less clear	127	28.2
No response	91	20.2
Total	450	100.0

Table 9 signifies the respondents thinking that digitalization of land record system is clear/simple than the manual, around 30 percent of the respondents reported that digitalization of land record system is clear/simple than the manual, whereas 21.8 percent of them told that this system is not clear, whereas 28.2 percent of the respondents

mentioned that this system is less clear, whereas 20.2 percent of the respondents gave no response about this system. Rattan (2011) reported that the digitalization of land record system is the applications of Govt. functions to have simple, speedy, accountable, responsive and transparent process by the Govt.

**Table 10: Selected population’s thinking about time required for availing these services**

n = 450

Services	30 minutes		One-day		2-days		Within a week		More than a week	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Acquisition of Fard	0	0.0	260	57.8	95	21.1	55	12.2	40	8.9
Mutations	0	0.0	46	10.2	86	19.1	280	62.2	38	8.4
FardBadar	0	0.0	0	0.0	30	6.7	300	66.7	120	26.7
Grievalredressal	0	0.0	0	0.0	110	24.4	248	55.1	92	20.4

Table 10 depicts the respondents' thinking about time required for availing these services. Table shows that a major part (57.8%) of the respondent reported that only one day is required for acquisition of Fard, 21.1 percent of them told that 2-days is required for acquisition of Fard and 12.2 percent of them observed that they can get Fard within a week, whereas 8.9 percent of the respondents reported that more than a week is required for acquisition of Fard.

Almost ten percent (10.2%) of the respondent reported that only one day is required for Mutations, 19.1 percent of them told that 2-days is required for Mutations and 62.2 percent of them observed that they can get Mutations within a week, whereas 8.4 percent of the respondents reported that more than a week is required for Mutations of land.

Only 6.7 percent of the respondent reported that 2-days is

required for FardBadar, and 66.7 percent of them observed that the process of FardBadar is required a week, whereas 26.7 percent of the respondents reported that more than a week is required for FardBadar.

Almost one-fourth (24.4%) of the respondents observed that the process of Grievalredressal is required two days, 55.1 percent of them told that a week is required for Grievalredressal, whereas 20.4 percent of the respondents reported that more than a week is required for Grievalredressal.

Anayat (2016) also reported that the issuance and verification of Fard in a short span of time i.e. in 30 minutes. Within the short time of 50 minutes the ownership in transfer without any difficulties.

**Table 11: Selected population’s thinking that digitalization of land record is convenient for public**

Response	<i>f</i>	%
Convenient	96	21.3
Less convenient	176	39.1
Not convenient	119	26.4
No response	59	13.1
Total	450	100.0

Table 11 shows the 21.3 % of the property owners observed that digitalization of land record is convenient for public, while 39.1 percent of them mentioned that this system is less convenient and 26.4 percent of the respondents had thinking that digitalization of land record is not convenient for public, whereas 13.1 percent of them gave no response about digitalization of land record is convenient for public.

Asgarkhani (2009) and Abdallah and Fan (2012) reported that e-services were further suitable as well as money-making process to the Public.

### Multivariate Linear Regression Analysis

Multiple linear regression model was used to identify the relative importance of independent variables in explaining the dependent variable. The regression co-efficient ( $\beta$ ) and coefficient of variation ( $R^2$ ) were determined to check the relative significance of independent variables. The regression coefficient shows the rate of change of response variables when predictor variable is changed for one unit.

**Table 12: Result of multivariate analysis: regression coefficient and level of significance of predictor variables.**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.019	.090		22.438	.000*
Age	-.877	.052	-.764	-16.902	.000*
Background	.306	.094	.183	3.274	.001*
Education	.547	.051	.722	10.807	.000*
Income	.008	.078	.008	.108	.914 <sup>NS</sup>

a. Dependent Variable: Utilization

$R^2 = .49$

F-value = 105.172

P-value = .00\*\*

**NS = Non-significant**

\* = Significant (at 1% level of significance)

The value of R-Square in the model summary is 0.49. This shows that the 49 % change in utilization of services provided through digitalization of land record was explained by the four variables related to socio-economic and background variables such as age, background, education, and income in the model. The overall model is statistically significant according to the findings of the research results. To judge the significance of the model F-test was applied. The F-value is 105.172, which is significant at less than one % level of significant. The value obtained suggests that the model is highly significant. The impact of each individual variable is prescribed as:

#### Age

The beta value (0.877) indicating a negative and significant relation of age with utilization of services provided through digitalization of land record. It shows that young people

expressed that there is more utilization of services provided through digitalization of land record as compared to old aged.

#### Background

The beta value (0.306) representing a positive and significant relation of residential status with utilization of services provided through digitalization of land record. It shows that urban community had more utilization of services provided through digitalization of land record as compared to rural community.

#### Education

The beta value (0.547) representing a positive and significant relation of education with utilization of services provided through digitalization of land record. It shows that educated people told that there is more utilization of services provided through digitalization of land record as compared to illiterate respondents.

## Income

The beta value (0.008) also indicating a positive and significant relation of income with utilization of services provided through digitalization of land record. It means that income level of the respondents never influencing on the utilization of services provided through digitalization of land record.

## Conclusions

It was concluded that majority of the sampled population had knowledge about two services of digitalization of land record i.e. acquisition of fard and mutations, while some of them had knowledge about other services i.e. fardbadar and grievance redressal. Similarly, it was observed that mostly respondents used LRS for acquisition of Fard and Mutations. Usage of other services i.e. 'fardbadar' and 'grievance redressal' was relatively lower. However, mostly respondents were never satisfied digitalization of land records system and with routine of officials of the Property Revenue Credentials Branch. A large part of the selected population told that it is very difficult to approach to the officials and this system is much complicated and less convenient for public. While young, educated and urban community had more utilization of these services.

## References

- Abdallah, S. and I. S. Fan, (2012). "Framework for E-Government assessment in developing countries: case study from Sudan," International Journal on Electronic Government, vol. 9, no. 2, pp. 158-77, 2012
- Ali, Z. and Nasir, A. (2010). Land administration system in Pakistan – current situation and stakeholders' perception. FIG Congress, Facing the Challenges – Building the Capacity Sydney, Australia, 11-16 April 2010.
- Ali, Z., Zevenbergen, J. and Tuladhar, A. (2014). Assessing the quality Land Administration System in Pakistan using systematic approach of case study methodology. American Journal of Rural Development, 2(3): 40-45.
- Anayat, R. (2016). Land Verification in Pakistan Computerization of Land Records. Property Right. Online available at: <http://rightproperty.pk/blog/land-verification-in-pakistan/>
- Andersen, T. B. (2009). E-Government as an anti-corruption strategy. Information Economics and Policy, 21(3), 201-210.
- Asgarkhani, M. 2009. The effectiveness of e-service in local government: A case. Asymptotic and Computational Methods in Spatial Statistics, pp. 1-22.
- Bokhari, A. (2016). [Resistance to digitisation of land records](#). Daily newspaper "DAWN", April 25, 2016.
- Gallup. (2009). Baseline Survey for Land Records Management and Information Systems. Gallup Survey, December 22, 2009.
- Geol, M. 2007. The Importance of Education. Retrieved from: <http://searchwarp.com/swa230219.htm>.
- Govt. of Pakistan. (2007). Economic Survey of Pakistan 2006-07. [Ministry of Finance](#), Govt. of Pakistan, Islamabad.
- Mwangakala, Hilda. A. 2012. "The Effect of Demographic Characteristics on Citizens' Usage of Government Websites", Social Science Research Network, September 14, 2012 Available at SSRN: <http://ssrn.com/abstract=216597> or <http://dx.doi.org/102139/ssrn>.
- Qaisar, N., & Khan, H.G.A. 2010. E-Government challenges in public sector: A case study of Pakistan. IJCSI International Journal of Computer Science Issues, 7(5): 310-317.
- Qazi, M.U. (2006). Computerisation of land records in Pakistan: A comparative analysis of two projects from a human security perspective. LEAD International, LEAD House, F-7 Markaz, Islamabad, Pakistan.
- [Sahni, D.](#) 2000. Importance of Education. Retrieved from: <http://www.boloji.com/teens/articles/00337.htm>.
- Sharma, S. K. (2006). An E-Government Services Framework, Encyclopedia of Commerce, E-Government and Mobile Commerce, Mehdi Khosrow-Pour, Information Resources Management Association, Idea Group Reference, USA, pp. 373-378. 2006.
- Sharma, S. K. and Gupta, J. N. D. (2003) Building Blocks of an E-Government – A Framework, Journal of Electronic Commerce in Organizations, (1:4), 2003, pp. 34-48.
- Sharma, S.K. (2004) Assessing E-Government Implementations, Electronic Government Journal, 1(2), 2004, pp. 198-212.
- UNH (United Nation – Habitat). (2015). Digitalization of Land Records in Khyber Pakhtunkhwa. UN-Habitat, United Nations Human Settlement Program.