



Digitalization of Land Documents in Bangladesh: Challenges and Prospects

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Abstract

Bangladesh is a small country but it has a lot of land related problems. Digitization of land documents will not only lessen hassles of the service seekers, but will also bring down many land-related social problems. The digitalization process of land records is undoubtedly a critical undertaking for the government, and it has to be done with due diligence. An effective and digitized land system across the country would greatly benefit citizens by eliminating the need to visit land offices unless absolutely necessary. The paper aims to highlight the current scenario of the management of land documents in Bangladesh and the need for digitalization to address the challenges faced in managing land documents. The purpose of this paper is to discuss the challenges and prospects of digitalization of land documents in Bangladesh. Along with exploring the benefits and challenges of digitalizing land documents, it will also recommend ways to ensure the successful implementation of the digitalization process in Bangladesh.

Subject Areas

Law

Keywords

Land Law, Digitalization, Land Disputes, Land Documents, Bangladesh

1. Introduction

Bangladesh is a densely populated country with limited land resources, and land-related disputes are a common problem. The traditional paper-based land administration system in Bangladesh has been criticized for being slow, inefficient, and prone to corruption [1]. As a result, the government of Bangladesh has introduced

a digital land management system to modernize the land administration system, ensure transparency, and reduce land-related disputes. The government's initiative includes the development of a digital land database, the introduction of an online land registration system, and the implementation of an e-mutation process.

The novelty of this paper lies in its focus on the challenges and prospects of digitalization of land documents in Bangladesh. While many studies have focused on the benefits of digitalizing land records, this paper also highlights the challenges that need to be addressed for the successful implementation of the digitalization process. Moreover, the paper recommends practical solutions to overcome the challenges and ensure the efficient functioning of the digital land administration system in Bangladesh. The study will contribute to the existing literature on digitalization of land documents and provide insights into the potential of digitalization in addressing land-related disputes in developing countries like Bangladesh.

2. Land Documents and their Digitalization in Bangladesh

For a piece of land, the major prevalent documents are instrument or deed of ownership and record of rights (ROR) in Bangladesh. Instrument, deed or *dolil* refers to the registered papers of land by which the ownership of a piece of land is ascertained. Due to the various modes of approved transfer, deed of ownership may be of many types including *Saf-Kabala Dolil*/Purchase Deed, *Baya Dolil*, Gift Deed/*Heba dolil*, Will Deed, Partition Deed/*bontonnama dolil*, Exchange Deed/*eyaj dolil*, Contract for Sale Deed/*Baynapotra dolil* and so on [2]. The land deed is registered by the *Upajila* Sub-registrar offices those are under the District Registrar Office. The head of the Directorate of Registration is designated as Inspector General (Registration) and it works under the Ministry of Law and Parliamentary Affairs.

The record of rights, in fact, consists of two documents *i.e.*, *Mouja* map and *khatian* or *porcha*. These two documents must be consistent to prove the correctness of land possession and they are the basis of land ownership certificate in Bangladesh [3]. Historically, the first preparation of record of rights was completed under the Bengal Tenancy Act, 1885 widely known as CS *Khatian* followed by SA, RS and BS record of rights [4]. *Khatian* is generally of two types *i.e.*, survey *khatian* and mutation *khatian*. The Directorate of Land Records and Survey (DLRS) under the Ministry of Land is responsible to conduct land survey and prepare *mouja* maps showing individual plots and *khatian*. It is pertinent to mention here that to accomplish the task of survey formulating the official documents, as per the current manual standard, it takes almost a minimum of ten years that is unexpectedly a major time consuming aspect in this modern digitalized world. On the other hand, after the deed registration is done, in response to the land transfer (LT) notice, the Assistant Commissioner (Land) office generally handles the case of mutation *khatian* [5].

In Bangladesh, the land management is manual and land related documents are paper-based and are stored in different government offices. The owners of land usually possess an ownership registered deed and relevant *khatian* of the piece of land. For justifying the correctness of documents, the citizens have to go to the relevant government land offices where corruption is widely said to be a common phenomenon. Also, the service delivery is delayed unnecessarily and citizens have to take the unnecessary brunt of getting land-related services. Considering such issues, the government of Bangladesh has taken several initiatives to digitalize the land related documents and land administration and management of Bangladesh. To introduce a plot-based Certificate of Land Ownership (CLO) a nationwide transition program was planned during 2001-2006 but later the government abandoned the program. During 2004-2005, a piloted project for *Demra* City Circle was initiated to introduce GIS based Computerised Land Management System (CLMS). Although it was successful to record digitally, it could not be operated within stipulated time for various reasons [3]. Digital survey pilot project was carried out in five *mouja* of Savar upajila using modern equipment in 2004-2009 which resulted in successful cadastral survey with minimum time and less inaccuracies based on digital map data but record writing and subsequent adjudication process was done only for two *moujas* [3]. To prepare a digital database, in 2011-2017, the Digital Land Management System (DLMS) was initiated in seven districts *i.e.*, Gopalganj, Gazipur, Jamalpur, Sherpur, Pubna, Dinajpur and Rajshahi. In the project, 18500 *mouja* maps and 66 lacs *khatian* were supposed to be stored in the digital database. A customised Integrated Digital Land Records System (IDLRS) was developed through the Strengthening Access to Land and Property Rights for all Citizens of Bangladesh (2010-2017) project [3]. The purpose of the project was to interconnect the three land offices *i.e.*, AC (Land), Sub-registrar and Settlement Offices of the upajila to strengthen and ease the service delivery process and as of May 2017, the task of final publication has been done for 40 *moujas* [6]. (See **Table 1**)

Table 1. List of completed projects on digitalization by ministry of land, government of the People's Republic of Bangladesh.

Duration	Project	Comment
2001-2006	Plot based Certificate of Land Ownership (CLO)	The project was finally abandoned
2004-2005	GIS based Computerised Land Management System (CLMS)	It was a pilot project for Demra City Circle but finally not operated
2004-2009	Digital survey pilot project	Initially it was for five mouja of Savar upajila but later done in only two moujas
July 2010-June 2017	Strengthening of Settlement Press, Map printing Press and Preparation of Digital Maps Project	Training of 10 surveyor, purchasing of 3 mid range server, 50 high power laser printer, 1 CtP map printing press and 20 ETS and necessary accessories were made with an amount of 1993.00 lac BDT.

Continued

July 2011-June 2017	Strengthening Access to Land and Property Rights for All Citizens of Bangladesh Project	47 <i>Mouja</i> Map were finally published with the aid of digital land survey and Integrated Digital Land Recording System (IDLRS) software was deployed to connect three offices. The expenditure was 10642.90 lac BDT.
July 2011-June 2017	Strengthening Governance Management Project (Component B: Digital Land Management System)	Land Information Service Centre was set up in 20 <i>Upajila</i> . Also, Khatian was scanned and data entry was done in the system with an expenditure of 15547.17 lac BDT.
July 2011-June 2017	Capacity Building and Supporting the Implementation Strengthening Governance Management Project (Component: B-Digital Land Management System) (2 nd revised)	Digital Land Management System (DLMS) was completed in 45 <i>Upajila</i> of 7 Districts with an expenditure of 351.91 lac BDT
July 2012-June 2017	National Land Zoning (2 nd Phase) Project	GIS Based Digital Land Zoning Map was accomplished in 326 <i>Upajila</i> of 43 Districts. The expenditure was 2754.96 lac BDT
July 2012-June 2020	Land Survey, Record Preparation and Preservation (1 st Phase: Computerization of Existing Mouza Maps and <i>Khatian</i>) Project	4,07,00000 <i>khatians'</i> data entry was accomplished with an expenditure of 9277.73 lac BDT

Source: Official Website of Ministry of Land, People's Republic of Bangladesh.

At present, several other government projects are undergoing to develop digitalization of land documents and land management and administration in Bangladesh. In response to the National Land Use Policy 2001, after the first phase, the National Land Zoning Project (second phase) is completed in 2017. Land Management Automation Project (2020-2025) and another project to strengthen the capacity of Directorate of Land Records and Survey to conduct survey by digital means are undergoing that are supposed to be completed within 2025 [7]. Amongst the visible developments of the digitalization process of land documents, the inheritance calculator, e-mutation, digital record room and access to check RS khatian online are providing fast and convenient service to the citizens.

3. List of Ongoing Projects on Digitalization

- Land Management Automation Project (2020-2025).
- A project to strengthen the capacity of Directorate of Land Records and Survey to conduct survey by digital means are undergoing that are supposed to be completed within 2025.

4. Present Land Related Digital Services

- *inheritance calculator*;
- *e-mutation*;
- *digital record room*;
- *access to check RS khatian online*;

- Online LDT and rent payment.

5. Challenges of Digitalization of Land Documents in Bangladesh

The digitalization of land documents in Bangladesh has been a long-standing issue, as the country still relies heavily on manual processes for land registration and documentation. While digitalization can bring about numerous benefits, such as increased efficiency and transparency, there are several challenges as well because every technological transformation has some complex positive and negative impacts [8]. These challenges need to be addressed for the successful implementation of the digitalization initiative for land documents. One of the major challenges of digitalization in Bangladesh is the lack of a robust IT infrastructure. Many areas in the country still do not have access to reliable internet connectivity and electricity, which can hinder the implementation of digital systems. If the land offices are equipped with proper computer, strong internet connection and other necessary technical assistance, the duties will be encouraged to be performed on schedule and citizens will receive the expected services [9].

Another significant challenge is the resistance to change from the officials involved in the process. Officials in the land offices are habituated to carry on their business manually and are unwilling to learn technological advances and so the pace of digitalization is very slow. If the officials in the Union parishad are not accustomed to use digital facilities to provide service, the general citizens are likely to get deprived of the necessary land related digitalized services due to the absence of competent labor [3]. The resistance to change from the stakeholders involved in the process is another significant challenge. Many landowners, real estate companies, and government officials are accustomed to the traditional manual processes and may be hesitant to adopt digital systems. Both service providers and recipients should have some ability and urge to make the digitalization fruitful. So, the lack of digital literacy among the population is also a major challenge.

Corruption is a serious issue in Bangladesh that could hinder the success of digitalization of land documents. There is a risk that digital systems could be exploited or manipulated, which could compromise the integrity of land registration and documentation. Because of corruption, sometimes even the projects are being halted to digitalize documents. Corruption in the land offices has already become a common knowledge [10]. The corrupt officials are reluctant to switch to the digitalized land automation system as it may hinder their chance of earning illegal money through corruption. In addition, Bangladesh's legal system and regulatory framework may not be adequate to support digital systems for land registration and documentation. The present laws on land administration and management are not unified rather they are scattered. Because of such state of scatteredness, even the educated people are not usually capable to understand land documents let alone the general non-educated or little educated citizens of the country. Land laws should be reframed in a way that suits the need for modern land

administration and management in the country.

Moreover, the land management and administration in Bangladesh is multisectoral and so cooperation and coordination is a prerequisite before initiating any innovative digitalized system in the land management system in Bangladesh. As the task of land management and administration is entrusted with several distinct offices under different ministries, the proper management of the land related issues can be ascertained only if there is an appropriate coherence among the officials [11]. Therefore, if proper coordination among the offices are not ensured, the digitalization of land documents will not lead to the expected results of making the citizens services easy and convenient.

6. Prospects of Digitalization of Land Documents in Bangladesh

Since newer technologies and innovations are coming out everyday, without embracing technological assistance, becoming successful in any field is near to impossible [12]. The digitalization of land documents in Bangladesh has the potential to revolutionize the country's land management system. One of the major benefits of digitalization is the reduction of fraudulent land transactions. With digitalization of land related documents, the transaction process of land will be more efficient, easy and convenient. Since the documents are digitally stored and accessible by a simple click, fraudulent transaction will be significantly reduced. Selling a single piece of land to many purchasers by dint of false deeds is a common phenomenon because it is very difficult to verify the true owner of the land in the present system [13]. If land documents are digitalized and become easily accessible, the verification of ownership of land will become more convenient resulting in the fall of such kind of fraud land transactions. Since digitalization enhances reliability and reduces risk [14], with the digitalization of land documents, the land registration and transfer process will become more rapid and transparent. In this way the efficiency of land management will be accelerated reducing the time and effort required to complete land transactions.

Digitalization can also promote financial inclusion, particularly for small landowners who may face difficulty accessing formal financial services including receiving loan from banks and financial institutions due to a lack of collateral. With digital land records, small landowners can use their land as collateral for loans because the vetting process will become more convenient, fast and reliable. In this way, the overall land management may become citizen centric and more flexible. In addition, the corruption in the land management sector may substantially be reduced if the land documents are digitalized.

Digitalization of land documents has the potential to significantly reduce land-related disputes and lawsuits in Bangladesh. The reasons of the present unexpected bulk of land disputes are mostly due to corrupted and obsolete system [15]. With digitalization, land records can become more accurate, complete, up-to-date and reliable, making it easier to verify land ownership and reduce disputes. Digital

systems can help to create a comprehensive database of land ownership, which can be accessed and verified by different stakeholders in a transparent and efficient manner. This can help to prevent fraudulent activities such as fake land deeds, double sales, and illegal land grabbing, which are common in Bangladesh's manual land management [16]. Moreover, digital systems can help to speed up the resolution of land disputes by providing access to accurate and up-to-date information. This can reduce the time and resources required to resolve land disputes, making the process more efficient and cost-effective. But before digitization all the incorrect documents should be modified. Because once digitised, all these incorrect records will be formalised, making correction of errors is almost impossible in future.

7. Recommendations

The digitalization of land documents is a dire need to address the current problems and disputes often occurred between citizen regarding various aspects of land in Bangladesh. The following operational recommendations are made to consider while digitalizing the land documents:

1) With satellite technology, every single piece of land should be given a distinct number with details of the property in terms of ownership and occupancy. This distinct number will be the central of every transaction, operation and management of the land.

2) Public confidence is necessary to complete the digitization work. Participation of stakeholders is recommended to avoid conflict.

3) To avail the benefit of digitalization, issues of inheritance, record discrepancies, illegal possessions, fake documents, discrepancies between the various documents of the same land (deed, *khatiyān*, mutation, registration etc.) which have prevailed over many generations need to be scrutinized carefully before digitization. Because once digitized, it will become difficult to address the issue.

4) In recent years, the digitization process of the land management system is partially done resulting in higher cost of maintenance. Every care should be taken to make the digitalization process both efficient and cost effective. The government should also ensure the effective and full implementation of the completed projects for the betterment of the people and government itself.

5) Steps should be taken to spread the knowledge of digitalization by telecasting the information in print and electronic media, setting of specialized booths and campaigning by the concerned land offices to make the digitalization process of land documents in Bangladesh.

6) The Cyber Safety Act 2023 can be a safeguard for the protection of digital land documents. However, necessary amendments should be made to the act to conform to the digitalization of land documents in Bangladesh.

8. Conclusion

In conclusion, the digitalization of land documents has the potential to bring

about significant changes in Bangladesh's land management system. The use of digital systems can help create a more accurate, reliable, and secure database of land ownership, which can be accessed and verified by different stakeholders in a transparent and efficient manner. However, challenges such as lack of technical infrastructure, limited digital literacy among stakeholders, and resistance to change must be addressed to ensure the success of the digitalization process. With the proper implementation of digital systems, the accuracy and reliability of land records can be improved, leading to a reduction in land-related disputes and legal battles. Overall, the prospects of digitalization of land documents in Bangladesh are significant, with the potential to improve the land management system and reduce the burden on the legal system.

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Conflicts of Interest

The authors declare no conflicts of interest.

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