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INTEGRATED LAND MANAGEMENT INFORMATION SYSTEM

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ABSTRACT

Bangladesh is a one of the most populated developing country with a very limited resource of land. This rapid increase of population is creating high pressure over land-man ratio. Due to age-old land management system, Land ownership record management system is become insufficient and till now it's incomplete in Bangladesh. Also the land administration system is known as the most corrupted sector of Bangladesh. To solve these problems, an integrated land information system is required which will ensure the transparency and availability of land related information. The infrastructure can be effective by improving the land administration, land ownership record management, registration, relocation, advance mapping, tax payment, and so on. Based on the secondary information by literature review and interview, this paper is aimed to propose few feasible strategies of LIS for an efficient and effective land information system. This paper will also focus on the present challenges of current system that are needed to be resolved.

I.INTRODUCTION

Introducing the Integrated Land Management Information System (ILMIS) project: Bangladesh, as a densely populated developing nation, faces significant challenges in managing its limited land resources amidst rapid urbanization and population growth. The pressure on land availability and utilization is exacerbated by outdated land management systems, inadequate record-keeping practices, and pervasive corruption within the land administration sector. Recognizing the critical need for reform, the ILMIS project aims to revolutionize land management practices by introducing an integrated and transparent system for recording, monitoring, and managing land-related information.

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By leveraging advanced technologies and best practices in land administration, the ILMIS project seeks to address the inefficiencies and inconsistencies prevalent in the current system. Through the establishment of a comprehensive database and streamlined processes, the project endeavors to enhance transparency, accountability, and accessibility of land-related information. Moreover, the implementation of the ILMIS will facilitate efficient land use planning, allocation, and development, thereby promoting sustainable growth and equitable distribution of resources.

This project's significance extends beyond administrative reforms; it represents a fundamental shift towards modernizing land management practices and fostering socio-economic development. By providing stakeholders with reliable and up-to-date information, the ILMIS project empowers decision-makers, investors, and the general public to make informed choices and contribute to the nation's progress.

Objective

The objective of the Integrated Land Management Information System (ILMIS) project is to modernize and optimize land administration processes, fostering transparency, efficiency, and sustainable land use practices. Key goals include enhancing governance by improving transparency and accountability in land administration, streamlining land registration and transaction processes, and providing stakeholders with easy access to accurate land-related information. Additionally, the project aims to support sustainable land use planning and decision-making by enabling spatial analysis and environmental impact assessment. By empowering stakeholders with tools for informed decision-making and promoting interoperability with external systems, the ILMIS project seeks to drive economic development, ensure compliance with data privacy regulations, and foster innovation in land management practices. Capacity-building initiatives will be implemented to train users and administrators in utilizing the system effectively, contributing to the overall objective of promoting inclusive and sustainable development through effective land management.

II.LITERATURE REVIEW

1. Integrating Land Management Information Systems for Effective Governance: A Review of Existing

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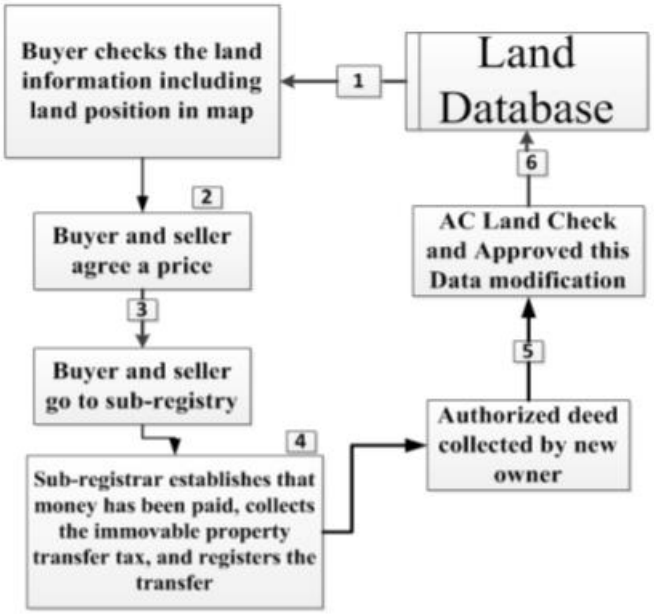
Frameworks, The effective management of land resources is crucial for sustainable development and equitable distribution of resources. In recent years, there has been growing interest in the development and implementation of Integrated Land Management Information Systems (ILMIS) to streamline land administration processes and improve governance. This literature review examines existing frameworks and models for integrating land management information systems and assesses their applicability and effectiveness in enhancing governance and transparency. The review highlights the importance of stakeholder engagement, capacity-building, and technology selection in the successful implementation of ILMIS projects. Furthermore, it identifies key challenges and best practices for policymakers and practitioners to consider when developing and implementing ILMIS initiatives.

2. Leveraging Technology for Land Management: A Review of Emerging Trends and Innovations, Advancements in technology, particularly Geographic Information Systems (GIS), cloud computing, and mobile technologies, have revolutionized the field of land management and administration. This literature review examines emerging trends and innovations in technology-driven approaches to land management, with a focus on improving efficiency, transparency, and accessibility. The review explores the potential of GIS-based solutions for land parcel mapping, spatial analysis, and decision support systems. It also discusses the integration of mobile applications and web-based platforms for citizen engagement, data collection, and monitoring of land-related activities. Additionally, the review highlights the importance of data interoperability, security, and privacy considerations in the adoption of technology-driven solutions for land management.



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III.EXISITNG SYSTEM

According to the existing Administration, the ministry of land is responsible manage total system with the assistance of different agencies. There are few others agencies with more minor roles include: the Ministries of Forests and Fisheries; the Directorate of Housing and Settlement; and the Department of Roads and Railways and so on [5]. The land survey process is referred to as land settlement and is administered by the Directorate of Land Records and Surveys (DLRS). It may take more than 10 years to complete the total survey! Here the settlement is seen as a temporary process where only certain parts of the country are covered at particular points of time.

IV.PROPOSED SYSTEM:

This paper is aimed to propose few feasible strategies of LIS for an efficient and effective land information system. This paper will also focus on the present challenges of current system that are needed to be resolved.

V.IMPLEMENTATION METHODS

- Phased Approach: Implement the ILMIS project in phases, starting with essential modules or functionalities and gradually expanding the system over time. This approach allows for incremental improvements, reduces implementation risks, and enables stakeholders to adapt to changes gradually.
- Stakeholder Engagement: Engage key stakeholders, including government agencies, landowners, developers, and community organizations, throughout the implementation process. Solicit their input, feedback, and collaboration to ensure the system meets their needs and addresses their concerns.
- Pilot Projects: Conduct pilot projects in select regions or municipalities to test the ILMIS system on a smaller scale before full-scale deployment. Pilot projects help identify and address issues early, gather user feedback, and demonstrate the system's benefits to stakeholders.
- Capacity Building: Provide training and capacity-building programs to users, administrators, and technical staff involved in the implementation and operation of the ILMIS system. Equipping stakeholders with the necessary skills and knowledge

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enhances system adoption and sustainability.

- Technology Selection: Select appropriate technologies, platforms, and tools for developing and deploying the ILMIS system. Consider factors such as scalability, interoperability, security, and ease of use when choosing technology solutions.
- Data Migration and Integration: Develop strategies for migrating existing land-related data from legacy systems to the ILMIS platform. Ensure seamless integration with external databases, systems, and services to exchange data and synchronize information effectively.
- Change Management: Implement change management processes to manage organizational and cultural changes resulting from the adoption of the ILMIS system. Communicate effectively with stakeholders, address concerns, and foster a supportive environment for system implementation.
- Quality Assurance and Testing: Conduct thorough testing and quality assurance activities to ensure the functionality, reliability, and performance of the ILMIS system. Test various scenarios, validate data accuracy, and address any issues or bugs identified during testing.
- Governance and Oversight: Establish governance structures and oversight mechanisms to monitor the implementation progress, allocate resources, and make informed decisions. Ensure alignment with strategic objectives, regulatory requirements, and stakeholder expectations.
- Continuous Improvement: Adopt a mindset of continuous improvement and refinement throughout the implementation process and beyond. Solicit feedback from users, monitor system performance, and identify opportunities for enhancement and optimization.

VI.CONCLUSION

In conclusion, the Integrated Land Management Information System (ILMIS) project represents a significant step towards modernizing land administration processes, enhancing governance, and promoting sustainable land use practices. By streamlining registration and transaction processes, providing stakeholders with easy access to accurate land-related information, and supporting informed decision-making

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through spatial analysis and environmental impact assessment, the ILMIS project aims to foster transparency, efficiency, and inclusivity in land management.

Furthermore, the project's emphasis on capacity-building initiatives ensures that users and administrators are equipped with the necessary skills and knowledge to utilize the system effectively, maximizing its impact and sustainability. Through stakeholder engagement, interoperability with external systems, and robust security measures, the ILMIS project seeks to drive economic development, ensure compliance with data privacy regulations, and foster innovation in land management practices.

Overall, the successful implementation of the ILMIS project holds the potential to catalyze positive change in land administration and contribute to the achievement of sustainable development goals, promoting equitable access to land resources and supporting socio-economic progress.

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