











## **Harnessing Technology to Streamline Land** Management in Rwanda

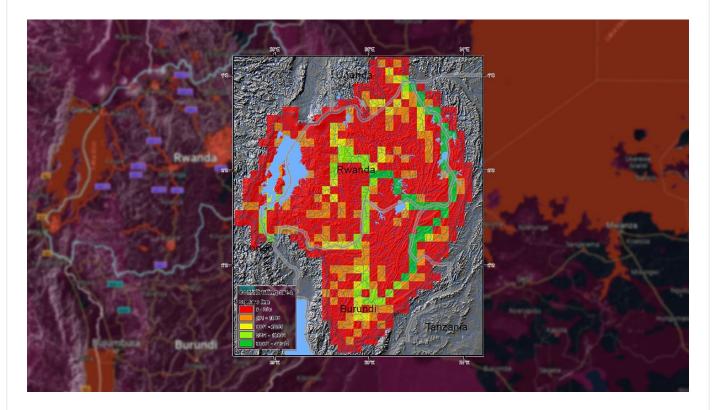
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In the dynamic landscape of economic development, efficient land management practices have emerged as a pivotal cornerstone for fostering an environment conducive to investment and entrepreneurship. Rwanda, the land of a thousand hills, stands at a crossroads where the strategic integration of technology could catalyze a transformative shift in land administration, ultimately ushering in a new era of ease of doing business.

The current land management framework in Rwanda, while commendable in its efforts, is encumbered by antiquated and labor-intensive processes that impede the seamless execution of transactions and developmental initiatives. A 2019 World Bank report highlighted that land disputes account for over 70% of cases in Rwandan courts, underscoring the pressing need for streamlined and transparent land governance mechanisms.

However, the advent of cutting-edge technologies, such as **Geographic Information Systems (GIS)**, has unlocked a realm of possibilities that could revolutionize the way land is managed in Rwanda. A study by the United Nations Economic Commission for Africa revealed that countries leveraging GIS for land administration witnessed a 25% reduction in land-related conflicts and a 35% increase in revenue from land taxes and fees.



One of the key advantages of GIS lies in its ability to consolidate and visualize complex landrelated data in a user-friendly and intuitive manner. By integrating cadastral maps, ownership records, zoning information, and regulatory frameworks into a unified digital platform, stakeholders can access a holistic view of land resources, facilitating informed decisionmaking and streamlining processes that once required cumbersome paper-based methods.

Moreover, the integration of GIS with **emerging technologies** such as drones and remote sensing tools could further enhance the accuracy and efficiency of land surveying and mapping activities. A recent pilot project by the Rwanda Land Management and Use Authority, in collaboration with the United Nations Human Settlement Programme (UN-Habitat), demonstrated that drone-based mapping could reduce surveying costs by up to 60% compared to traditional methods.

Beyond its technical applications, the adoption of GIS in land management could yield farreaching socioeconomic benefits for Rwanda. According to a report by the International Food Policy Research Institute, secure land tenure facilitated by efficient land administration systems can increase agricultural productivity by up to 40% in developing countries. Furthermore, the automation and digitization of land-related processes facilitated by GIS could significantly reduce the administrative burden on government agencies and private entities alike. The World Bank's Doing Business report consistently ranks countries with streamlined land administration processes higher in terms of ease of doing business, underscoring the potential economic advantages for Rwanda.

As Rwanda continues to forge ahead on its path towards economic diversification and sustainable growth, the implementation of technological solutions such as GIS in land management becomes an imperative. A study by the African Development Bank Group found that countries that leveraged geospatial technologies in land governance attracted 30% more foreign direct investment compared to their counterparts that did not.

However, it is crucial to acknowledge that the successful integration of GIS and complementary technologies in land management requires a multifaceted approach. The Rwandan government's National Strategy for Transformation emphasizes the development of robust digital infrastructure and capacity-building initiatives as key enablers for leveraging emerging technologies across various sectors.

In conclusion, the time is ripe for Rwanda to harness the potential of technological interventions in land management. By embracing GIS and allied technologies, the nation can pave the way for a future where land-related transactions are seamless, transparent, and aligned with the principles of sustainable development. This paradigm shift not only promises to unlock new realms of economic opportunity but also serves as a testament to Rwanda's unwavering commitment to progress and its vision of becoming a hub of ease of doing business in the region.



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