

Land Administration in Support of Rural Development in Namibia: A Communication paper

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SUMMARY

Land Administration systems are essential for managing urban and rural land reform. These systems benefit the government and society by supporting improved land delivery, security of tenure and economic development. Governments without land administration systems will be challenged to address resource issues holistically. Land Information Systems (LIS) are essential in land administration as they help provide an account of who owns what, where and the value of the land. Efficient land markets depend on systems to facilitate and ensure transaction transparency and efficiency. LIS supports economic development and improves business processes within the land sector. In addition, it helps identify essential areas for development and supports land use planning. Numerous studies highlight land administration reforms and the benefits of system improvements. This paper aims to add to the body of literature by providing a case for reforming the Namibia Land Administration System to support urban expansion and rural land development. The paper highlights the legal and institutional setup for implementing an integrated land administration system. Following the Namibia Second National Land Conference in 2018, an integrated information system was proposed to support improved land administration, combining the National communal land administration system (NCLAS) for communal land, the Deeds Registry System, the Land Information System under the auspices of the Surveyor General, and the new Flexible Land Tenure System supported by The Social Tenure Domain Model (STDM) of GLTN -UN-Habitat. The Namibia Statistics Agency has been spearheading the design and implementation of a National Housing Information System that will support the generation and storage of data from a local level to a national centralised online information system. Based on research, the Namibian government must implement a phased approach to system design and promote the participation of users and beneficiaries through community awareness programs. In addition, initiatives that recognise the importance of a stable political, legal, and social environment must be developed for the new system's success. A method of document review, literature analysis and short interviews with officials working on the system provided insight into opportunities for reform.

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1. INTRODUCTION

Technological advancements require organisations to develop digital systems that stay on track with consumer demands for improved services. Spatially enabled land administration systems are essential in supporting the government with information sharing and streamlining processes (Wallace, 2009). Land Information Systems allow governments to address challenges with urban growth, land delivery, resource distribution and land conflict mitigation. The drivers for national land administration infrastructure are complex and occur from policy issues and scientific and environmental debates (Bennett, Rajabifard, Williamson, & Wallace, 2012). An integrated land administration system allows countries to address emerging disasters and risks that affect urban and rural populations (Bennett et al., 2012). Governments without integrated land administration systems providing an overview of land resources are challenged to govern (Bennett et al., 2012). The observed drivers for an integrated land administration system emerge from a need for improved land delivery and improved land governance arrangements in Namibia.

Land administration systems are institutional frameworks comprising various tasks that technology must perform in national cultural, political and judicial systems (Williamson, Ting, & Grant, 1999, p. 51). It provides infrastructure for land management strategies to ensure economic growth, social equity and environmental protection. The role of people and institutions is also crucial in the functioning of the Land Administration System. Together with this, an information system is needed which includes valuable data such as land use regulations and land rights. Sustainable development is one of the drivers that demand information regarding land-related data and environmental information. A unified land administration model will thus concentrate on functions and system delivery. It can support the analysis of the relationship between infrastructure and sustainable development.

The land is immovable, a characteristic that should provide those who manage it endless opportunities to find the best approach to improve access for all. Attributes of the land change give land management organisations the necessary impetus to manage it well for future development. An integrated land administration system can address Land tenure, Land value, Land Use, and Land development issues. Data available can be connected through unique parcel identifiers and made accessible to users managing land on the urban and rural levels. However,

for Land Administration systems to produce benefits, there needs to be an efficient system of land titling and administration based on clear policies and legislation.

This paper summarises Namibia's land information infrastructure development to support improved land administration and makes a case for systems to support rural land management. Information was collected through article review and follow-up questions with officials working with the different systems.

In the paper, we cover systems responsible for recording and managing customary, freehold and flexible (registration of informal land rights) land rights. Considerable progress has been made in developing systems to address national development; however, gaps still exist. The Economic Commission For Europe summarised the benefits of the Land Administration system almost 18 years ago (UNECE, 2005); this paper will discuss the development of land administration systems in Namibia, using the UNECE-identified benefits of systems as a signpost.

1.1. Background on Namibia Land Administration Systems

The urban population in Namibia has reached a 51%, the highest since independence, compared to the 33% in 2001 (NSA, 2013). The land tenure system comprises freehold (48%), communal (customary tenure) (35%), and state land (17%)-(Namibia Statistics Agency (NSA), 2018, p. 24). The latest form of land registration is the flexible land tenure system that saw the first titles issued in 2021 by the Ministry of Agriculture, Water and Land Reform (Nembwaya, 2020). The Ministry of Agriculture Water and Land Reform has developed various systems for land management. The Namibia Communal Land Administration System was launched in June 2014 to support the registration of communal land rights (Kasita, 2011) (Behr, Haer, & Kromrey, 2015). The system is decentralised to the regions, and data is synchronised to the central system monthly. Data is collected through sporadic land registration. Besides the registration systems, reporting on land development is vital for the national government to access the implementation of interventions.

Based on observation, one would note that the Namibian government has been challenged with land resources management due to a lack of an integrated system. For example, during a demand for improved land delivery and measuring the housing needs, the central government forwards request for information to local authorities to indicate the availability of open land in their towns that could be used for residential housing. As no central LIS is available, data is shared via manual approaches. Another example is the process of data acquisition to report on National Development Plans (NDP). The reporting is done using an Excel matrix populated by each stakeholder and merged by the line ministry. The process is time-consuming and causes delays in reporting. The most recent report is on the achievement of Second National Conference

resolutions. Despite reporting challenges, existing systems address various land administration functions and support development planning.

Customary land is currently being registered in the National Communal Land Registration System. The system guarantees the right to use communal land and provides tenure security upon issuing customary land certificates. To date, the NCLAS has registered over 193 000 communal land rights. All these rights have been mapped and digitised. This presents 79% of the total estimated communal land rights nationally. The system is operated through decentralised regional offices that contribute data, and all are synchronised to the centralised system monthly.

It is not yet ascertained if the data from the registration system is used in compensating rural land in instances when local authorities expropriate land due to the expansion of town boundaries. Freehold is registered in the deeds office through a manual system.

The new flexible land rights are currently registered using the Social Tenure Domain Model of the UN-Habitat. The data is maintained in the land rights office within the Directorate of Deeds. Data on land occupiers forming part of an association is collected from the local authorities and captured by the single land rights office based at the Ministry of Agriculture, Water and Land Reform. The current approach to registration does not correspond with the envisioned plan of flexibility and availability of land registration services for low-income communities. A registration process still requires the MAWLR to initiate the process from the central office. Starting the process from the top causes of delays and places control of registration with the central office. The flexible land tenure system was proposed to provide low-income communities with access to credit. Although the Act and regulations have been implemented, financial institutions have received no buy-in to provide credit for households with access to land under the flexible land tenure system.

The freehold system for land registration supports land and property taxation, as the directorate of valuation uses data from the system for commercial farmland and private land valuers to complete local valuation rolls for local authorities. In the Bathurst Declaration, some problems facing the relationship between land and People were a lack of adequate planning and tensions between environment and development (Williamson, Grant and Ting, 1999). Namibia faces These current challenges: economic versus environmental challenges, basic survival versus personal enrichment and different rights versus continuum of rights. Namibia needs to re-engineer its land administration system because it cannot cope with the evolving human-to-land relationship. This re-engineering will call for other information sources besides the cadastre, allowing for better land administration. The Social Tenure Domain is one tool that can be used

as it allows for recording all types of tenure. It records informal and customary tenure, which the conventional land information system does not.

With all the current systems in place, there is still a gap in land information for rural development in Namibia.

2. Information systems supporting Rural Development

Land use planning necessitates more information to allow land managers to investigate the alternatives and consequences of alternative land use plans and the structure of the trade-offs between the various objectives (Matthews, Sibbald, & Craw, 1999). Herrmann and Osinski, (1999) emphasised the importance of participation of local stakeholders in the planning process. Planning should adopt both a top-down and a bottom-up approach, integrating the perspectives and input of the people involved. Geographic Information systems can provide advantages for land use planners and stakeholders. At the regional level, GIS-supported model systems enable quantifying ecological effects and estimating economic changes resulting from planning measures. This allows evaluating and comparing different plans and measures (Herrmann & Osinski, 1999). At the highest level, GIS allows for storing and managing substantial amounts of data. Information technology has an essential role in rural development and promotes the growth of economic activities (Bambio & Bouayad Agha, 2018).

At the regional level, GIS facilitates the linking and storage of data for different models, enabling the calculation of spatially specific processes and the assessment of planned measures. At the local level, GIS is utilised to visualise scenario results, helping stakeholders in the participatory planning process and understand proposed measures. To date, rural land is being lost to the expansion of the urban areas making way for residential land development (Diao, Magalhaes, & Silver, 2019). Identical to many developing countries, the Namibian rural population is decreasing. Spatially enabled land administration systems can provide traditional authorities or land managers of rural land information to make informed decisions about land allocation and addressing land conflicts. Developing a system will require using the land management paradigm to ensure that all relevant datasets are incorporated.

2.1. Systems Specifics for Improved land management

Land administration systems focus on institutional frameworks with tasks that technology must perform in national cultural, political and judicial systems (Enemark, Williamson and Wallace, 2005, p. 51). It provides the infrastructure to implement land management strategies to ensure economic growth, social equity and environmental protection, according to (Enemark et al., 2005, p. 51). A unified land administration model will thus concentrate on functions and system delivery. In addition, it will analyse the relationship between infrastructure and sustainable

development. The vision for a new land administration model will therefore investigate the following factors according to Enemark et al. (2005, p. 52): a holistic approach to the Land Administration System; recognition of risk information as a central requirement for land information and management; recognition of human and governance elements and facilitation of incremental adoption of the model by countries at transitional stages of economic development.

2.2. The Land Information Component

The Deeds Office produces, stores and provides information regarding ownership of parcels. The Swede Survey project established a Digital Cadastral Information System to improve Namibia's management, access and quality of cadastral information (De Cauwer, 2009, p. 34). This system consists of the diagram, erf register, farm register, survey records and noting plans (De Cauwer, 2009, p. 34). Furthermore, this cadastre makes provision to populate a geodatabase by capturing farms, parcels, servitudes and geodetic stations. It supports retrieving information from the Deeds Registry and will intergrade the geographic division geodatabase (Middleton, Von Carlowitz, & Becker, 2016). The digital cadastre also aims to allow information dissemination through a spatially enabled website. However, this has not yet materialised—local government stores parcel-based information in LIS for property taxation. Unfortunately, the system crashed last year and is currently under further development. The Ministry of Agriculture, Water and Land Reform established the Namibian Communal Land Administration System (NCLAS) digital recording system. This system consists of communal deeds, which stores information regarding land rights holder and the communal cadastre based on ArcGIS. According to Middleton et al. (2012, p. 29), these components are linked via a Unique Parcel Identifier, giving each land parcel a unique number. The NCLAS allows the communal land board to issue certificates to customary or leasehold right holders, which state the right holder's particulars, the land parcel's location and size, a description of their right, and a map of the parcel. However, the NCLAS, the Deeds Registry and the cadastre are not integrated. The Namibia Statistics Agency implemented a Spatial Data Infrastructure that captures, manages, integrates and distributes spatial data.

A well-functional and developed LAS provides detailed land information, supporting proper planning and a spatially reference information system to aid in land registration. An improved land information system in Namibia will improve land delivery, service provision and housing provision and address all the urban and rural land development challenges it encounters. In addition, in a modern LAS, there is an increase in economic development as the system generates an income from tax, improving the economic yield from land (Enemark et al., 2005, p. 99).

According to Enemark et al. (2005), there are two systems regarding land registration in the cadastral system. The deeds system is where only the transaction is recorded and provides a register based on owners (who owns what), and the title system is where the title is recorded and secured and is based on what is owned by whom (p. 54). Just like the organisational structures of land management, cadastral systems differ worldwide. Cadasters are designed based on the country's history, origin and cultural development. Therefore, it reflects local, cultural and judicial settings. However, modern cadaster designs are influenced by globalisation and technology. Urbanisation and sustainable development are major drivers for modern cadasters.

3. OPPORTUNITIES FOR AN INTEGRATED INFORMATION SYSTEM

To completely address land use planning issues in rural areas adding a spatial decision support system of land use planning tools is needed to aid land managers in exploring choices, assessing potential implications, and experimenting with different land use plans (Matthews, Sibbald, & Craw, 1999). An integrated system hosting parcel-level information will provide for the development and monitoring of land markets. Regions currently have integrated regional development plans whose data is hosted within the regional office in a standalone system. If these are linked to spatially linked land information systems, they can aid in identifying areas of high market interest and address challenges. In addition, information readily available on land can support knowledge for land market participants. An integrated land administration system supports land resource protection and is an impetus for environmental monitoring, with some of the best environmental legislation in the world. This can be improved with support from an information system that links resource use and availability—supporting community conservation and government decision-making in cases of disasters.

State property is currently managed using an analogue system. With the growth of urban areas, there is encouragement for the rural. Accurate mapping and registration of rural land rights will result in easier management of emerging disputes. Land administration systems can aid in producing statistical data to support government decision-making. Data on land values and land transactions can be used to monitor development in the country. The Namibian tax registration system captures immovable property transfers and values. This information becomes necessary for planning and prioritising government intervention.

The Introduction of integrated systems that rely on the decentralisation of data and centralised updating will require political will (Bennett et al., 2012), reduced bureaucracy, legislation addressing the new system set up and education of future and current employees within

institutions leading implementation. The NSA has been tasked to develop a housing information system. Finally, staff retention policies should be for skilled staff (Opadeyi & Brown, 2008).

CONCLUSION

Land information systems provide advantages for the government in managing urban and rural land. The implementation of land information systems can support the allocation of customary land rights in rural areas. This can be done using existing spatial data available at the regional and national level. System development and deployment success will require political will and sensitisation from traditional authorities. The design of the system should incorporate local knowledge. It is essential that Namibia intergrades its digital land administration system to avoid data duplication and mismatching data, have efficient data and for better accessibility of land-related data.

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BIOGRAPHICAL NOTES

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