Zambia

State of Land Information in Zambia

An Open Data Assessment

land
portal

About the State of Land Information (SOLI) reports

The **State of Land Information** (**SOLI**) research and reports seek to provide an overview of available government data and information on key land issues. The aim of the research is to uncover the many different sources of land data and information at the country-level and help to identify data and information gaps. The research also provides a technical assessment against open data criteria derived from international standards. The reports establish a baseline for targeted interventions to improve the information ecosystem. The Land Portal has published SOLI reports for Malawi, Namibia, Senegal, South Africa, Uganda, South Sudan, Tanzania, and Kenya. We aim to develop SOLI reports for a dozen countries in Africa by 2024.

Though SOLI reports are independent research products, they may also serve as the first step in the implementation of the Open Up Guide for Land Governance. The Open Up Guide for Land Governance is a tool for national and local government agencies with a mandate for or an interest in making their land governance data open and available for others to re-use. The Open Up Guide is the result of a collaboration between the Land Portal Foundation and Open Data Charter.

About the Land Portal

The **Land Portal Foundation** was established to create, curate and disseminate land governance information by fostering an inclusive, open, and accessible data ecosystem. Over the last decade, the Land Portal has evolved from a simple information gateway to become a knowledge broker, a resource base, a vibrant online community of users and a trusted voice within global land governance.

On behalf of

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Federal Ministry for Economic Cooperation and Development

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Introduction

Why Open Data

Increased digitization of information, use of the internet, and a growing demand for data transparency have expanded the global land information ecosystem. International land monitoring initiatives, including those relating to land indicators for the **Sustainable Development Goals**[1] and the **Voluntary Guidelines on the Responsible Governance of Tenure**,[2] have significantly increased public demand for free, accessible, and usable land data and information. However, land data in many parts of the world, including the African continent, continues to be inaccessible, fragmented and poorly managed. As a result, public access to open land data in many African states is limited or not available.

In response, Zambia embarked on a strategy to improve access to data and digital services, starting in 2015 with the SMART Zambia Agenda. Since then Zambia has placed data and digital services at the core of its developmental strategy to improve public service delivery and achieve socio-economic development. Zambia continues to develop a robust, but still improving, legal framework for opening up access to information and digital services in support of its vision of being a "*prosperous and globally competitive knowledge-based country*". Since 2016 Zambia has passed laws on the dissemination of statistics, data protection, cyber security and digital governance. The **Electronic Government Act No. 41 of 2021**[3] provides the framework for the provision of machine readable data to the public and mandates the **SMART Zambia Institute**[4] with the goal of providing "*efficient, relevant and transparent*" services that are built on affordable and available information and communication technologies.

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1   **https://sdgs.un.org/goals**
2   FAO 2012, Voluntary guidelines on the responsible governance of tenure of land fisheries and forests in the context of national food security. Food and Agriculture Organization of the United Nations. **https://www.fao.org/3/i2801e/i2801e.pdf**
3   **https://www.parliament.gov.zm/sites/default/files/documents/acts/Act%20No.%2041%20OF%202021%2C%20 THE%20ELECTRONIC%20GOVERNMENT%20ACT%2C%202021_0.pdf**
4   **https://www.szi.gov.zm**

Assessing the state of open data and information in Zambia is critical in understanding progress made towards achieving the underlying conditions for economic development in a knowledge based economy. This assessment provides a baseline and serves as a diagnostic tool that can be used to address data gaps and improve access to data and information for more efficient and effective service delivery for the citizenry.

Global Indices

Zambia was not assessed in the most recent open land data module of the **2022 Global Data Barometer**.[5] In 2016, Zambia was ranked number 72 out of 94 countries under the **Global Open Data Index**[6] which provides a comprehensive snapshot of the state of open government data publication and scored Zambia zero for its land ownership data. The **Open Data Inventory (ODIN)**[7] assessment 2020/2021 scored Zambia 40 out of 100 (on coverage) and 52 out of 100 (on openness). The assessment measures the coverage and openness of official statistics to identify gaps, promote open data policies, improve access and to encourage dialogue between national statistical offices and data users. ODIN does not specifically assess land data, although it includes some indicators on the built environment and land use. **Freedom House**,[8] which tracked online access to information in the year 2021 (but not access to land information specifically), scored Zambia 59 out of 100. "*Obstacles to access*" scored 15 out of 25, "*limits on content*" 24 out of 35 and "*violations of user rights*" 30 out of 40. The rankings and scores from these indices indicate that there is little to no land data openly available in Zambia. More can be done to improve the availability of land data and there are opportunities to access other types of governance data more easily.

5   **https://globaldatabarometer.org/results/**
6   **http://index.okfn.org/place.html**
7   **https://odin.opendatawatch.com/Report/rankings?sortOrder=country&appConfigId=7**
8   **https://freedomhouse.org/country/zambia/freedom-net/2021#A**

Aim Objectives of the Report

This research report identifies the various public sector sources of land data and information in Zambia. It provides a general overview of the sources of land data or information generated by the Government or public institutions involved in land governance. It aims to be a diagnostic tool for the land information ecosystem in Zambia to enable targeted interventions for improved information management at a later stage.

Table 1: Land Data Categories

	CATEGORY 1: **LEGAL AND POLICY DATA** **AND INFORMATION**	The availability of data and information on laws, policies, rules, regulations, processes and procedures regarding land and data governance across all data categories.
	CATEGORY 2: **LAND TENURE DATA** **AND INFORMATION**	Data and information on the relationships that individuals and groups have with respect to land and related resources and their allocation; cadastral information (formal, informal, customary/indigenous) including the legal survey records to determine parcel boundaries; the creation of new properties or alteration of existing properties; and transfer of properties though sale, lease or mortgaging.
	CATEGORY 3: **LAND USE DATA** **AND INFORMATION**	The available data and information related to control of land use; including zoning, enforcement of land uses, public land use at the national, regional, and local level that is available in the country.
	CATEGORY 4: **LAND DEVELOPMENT** **DATA AND INFORMATION**	An overview of the available land data and information relating to the building of new physical infrastructure and utilities; the implementation of construction planning; public acquisition of land; expropriation; change of land use through granting of planning permissions, and building and land-use permits; and the distribution of development costs.
	CATEGORY 5: **LAND VALUE DATA** **AND INFORMATION**	Available land data and information on the assessment of the value of land and properties; the calculation and gathering of revenues through taxation; and the management and adjudication of land valuation and taxation disputes and land markets.
	CATEGORY 6: **OTHER LAND DATA** **AND INFORMATION**	This category may vary according to country specific context, but may include data and information relating to mineral resources, infrastructure, agricultural census data, socio economic census and survey data, public asset data, public procurement data, beneficial ownership data and other key data sets for resilience and climate change.

The first section describes Zambia's legal framework for data governance and for opening up information. It examines Zambia's international and national commitments to access to information and its instruments for data and information governance. Good data governance ensures transparency about the purpose for collecting, storing and disseminating information. The second section examines the availability of land data and information provided by the Zambian public sector entity responsible for land administration and is organized according to six key land data categories (**Table 1)**. The third section evaluates the openness of this information by assessing it against 10 criteria for open data, as used by international best practice (**Table 2**).

Table 2: Open Data Assessment Criteria

	ONLINE		STANDARDS
	ACCESSIBLE		DOWNLOADABLE
	FREE		OPEN LICENCE
	TIMELY		MACHINE READABLE
	METADATA		UNIFORM RESOURCE IDENTIFIERS

Methodology

This State of Land Information (SOLI) report uses the **Modern Land Administration Theory (Williamson, Enemark, Wallace et al 2010)** as a conceptual framework. The theory holds that land administration agencies should support sustainable development by contributing to a more integrated information system across government sectors. Modern land administration prioritizes an information environment that responds to national and global imperatives such as poverty reduction, sustainable agriculture, sustainable settlements, economic development and conflict management.

Sustainable development and good governance require data on the core land administration functions of land tenure, land use, land value, and land development. Legal and policy information on land governance as well as other relevant land data and information about a country are also considered. For each of these six categories this report identifies key information sources and assesses whether they are readily available, timely, standardized, and openly licensed. Inputs on this categorization and methodology are welcomed to continuously improve the assessment process.

The report prioritizes government data and the public sector as the primary producers of land data, while recognising that many other actors may play a role in producing data. It has become clear that, in terms of land governance, the Zambia government is the primary custodian of Zambia's land data. This assessment is based on the typical land administration functions of a well operating system and assumes that government departments function as an integrated whole for the purposes of planning and sustainable development.

The SOLI research team comprised local and international researchers. Additional stakeholder interviews were conducted to complement and validate the desktop research. As the data landscape is not static and is constantly in flux, this document only provides a unique temporal baseline.

Dataset as the Unit of Analysis

The observation unit for the purpose of this report is the 'dataset' which may be defined as a structured collection of information, including statistical (numerical) data, bibliographic (publication) data, spatial data and multimedia contents. Thus, it can be a statistical dataset that contains information about the number of land parcels owned by gender, or even a database of publications that contains information about a particular subject on land governance. This report focuses on datasets produced by the relevant Government departments, local authorities (city, municipal and district councils) and other public sector entities as part of their ongoing functions. The report does not focus on project data where entities (e.g. donor, private, NGO) create one-off collections of data about a specific issue which are not supported on an ongoing basis.

As not all information about the information landscape is measurable in numbers or captured in a dataset, the report includes other types of data such as individual publications, websites, or a specific law or legislation (or even certain aspects within those documents).

Usefulness of the Report

This SOLI Report is intended as a tool for any party that is interested in land data governance work that requires access to data and information on Zambia. Researchers may use it to identify gaps in information and identify research priorities. A land practitioner working at the global level may use the information sources as a basis to monitor land governance performance against international indicators.

Data Governance in Zambia

This report defines land data governance as the legal, policy and management principles that inform the equitable and ethical collection, use and dissemination of data. This section focuses primarily on the collection, use and dissemination of land data and information at the national level.

Legal Framework on Access to Information

The legal right to information is firmly established by the **Zambian constitution** as well as by several laws that seek to operationalise access to information as part of the formal functions of government. The Zambian Constitution[9] provides in Article 173(1)(h) that the Public Service "*shall proactively provide the public with timely, accessible and accurate information*". The **Statistics Act of 2018**[10] provides for, among other matters, mechanisms for coordination, collection, management and "*dissemination of statistics*". The **Electronic Government Act No. 41 of 2021**[11] requires that where data is made public it should be in machine readable formats and must be accompanied by metadata. Section 27 makes various provisions on sharing of data (including land data) electronically among public bodies. A **model access to information law**[12] is currently under development.

The **Electronic Government Act No. 41 of 2021** provides a good starting point for promotion of open data access. The responsible institution for the administration of this act is the **SMART Zambia Institute**.[13] The **Data Protection Act No. 3 of 2021**[14], inter alia, provides for the protection of personal data and the regulation of the collection, use, transmission, storage and processing of personal data. The Electronic Communications and Transactions Act No. 4 of 2021[15] provides, inter alia, for a safe and effective environment

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9   **https://constituteproject.org/constitution/Zambia_2016.pdf?lang=en**
10   **https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20Statistics%20Act%202018.pdf**
11   **https://www.parliament.gov.zm/sites/default/files/documents/acts/Act%20No.%2041%20OF%202021%2C%20 THE%20ELECTRONIC%20GOVERNMENT%20ACT%2C%202021_0.pdf**
12   The African Union has adopted a model law on access to information that aims to ensure that legislative drafters and policy-makers address all issues relevant to the African context in their adoption or review of access to information legislation in AU member states. **https://www.achpr.org/legalinstruments/detail?id=32**
13   **https://www.szi.gov.zm**
14   **https://www.parliament.gov.zm/sites/default/files/documents/acts/Act%20No.%203%20The%20Data%20 Protection%20Act%202021_0.pdf**
15   **https://www.parliament.gov.zm/sites/default/files/documents/acts/Act%20No.%204%20of%202021%2C%20 The%20Electronic%20Communications%20and%20Transactions_0.pdf**

for electronic transactions, and the use, security, facilitation and regulation of electronic communications and transactions. The **Cyber Security and Cyber Crimes Act No. 2 of 2021**[16] includes provisions on facilitation, identification, declaration and protection of critical information infrastructure. The **State Security Act**[17] makes provisions which prohibit the sharing of classified information.

The Access to Information Bill (which was initially referred to as the **Freedom of Information Bill**[18]) is yet to be passed into law. The Access to Information Bill aims to increase openness and transparency, thereby guaranteeing the freedom to and the right to access information, improving accountability, and improved Government relationship with the people.[19] The Access to Information Bill was introduced in 2002 but was withdrawn for further consultations and is expected to be tabled in Parliament in 2023 and possibly get passed into law.

Access to data and information held by public bodies or authorities is a fundamental human right recognised and protected by Article 19 of the **International Covenant on Civil and Political Rights**,[20] which Zambia has ratified. Article 9 of the **African Charter on Human and Peoples' Rights**,[21] which Zambia has also ratified, protects the right to access information.

Legal Framework on Access to Land Information

Zambia's first **National Lands Policy**,[22] launched in May 2021, provides for the establishment of a mechanism for dissemination of "*statistics and information*" on land allocation for both State land and customary land. Transparency and accessibility of information is set out as a guiding principle in the policy.

Access to land tenure data and Information is guided by the **Lands and Deeds Registry Act Chapter 185**,[23] which makes provision for the public to search for and access information about land ownership upon payment of a fee (Section 22). The Lands and Deeds Registry Act further provides that where a register or part of a register is kept other than in the form of a book, it shall be made available in a convenient written form, as a printed document or by means of an electronic device (Section 16{2}). The **Land Survey Act Chapter 188**[24] does not make any specific provisions for the public to access cadastral records other than to state in Section 4(3) that "*approved plans and diagrams shall be available, for the purposes of reference, to the public in the office of the Surveyor-General*" .

16 https://www.parliament.gov.zm/sites/default/files/documents/acts/Act%20No.%202%20of%202021The%20Cyber%20Security%20and%20Cyber%20Crimes.pdf
17 https://www.parliament.gov.zm/sites/default/files/documents/acts/State%20Security%20Act.pdf
18 https://ictpolicyafrica.org/fr/document/db644dtsz79?page=3
19 Ministerial Statement on Access to Information Bill Presented to Parliament by Honourable Mwansa Kapeya Minister of Information and Broadcasting Services on September 2013. https://www.parliament.gov.zm/sites/default/files/images/publication_docs/Ministerial%20Statement%20by%20M%20Kapeya%20on%203rd%20October%2C%202013.pdf
20 International Covenant on Civil and Political Rights 1966. Retrieved November 2022, from https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights
21 African Charter on Human and Peoples Rights 1981. Retrieved November 2022, from https://www.achpr.org/legalinstruments/detail?id=49
22 https://pmrczambia.com/wp-content/uploads/2021/05/National-Lands-Policy.pdf
23 https://www.parliament.gov.zm/sites/default/files/documents/acts/Lands%20and%20Deeds%20Registry%20Act.pdf
24 https://www.parliament.gov.zm/sites/default/files/documents/acts/Land%20Survey%20Act.pdf

Information regarding land use and land development is regulated through the **Urban and Regional Planning Act of 2015**[25] which includes provisions for access to integrated development plans, local area plans, register of enforcement notices and register of planning permissions and other information. The Urban and Regional Planning Act of 2015 prescribes the publication of resolutions concerning the land use planning processes to be made available to the public (Section 35). However, Section 9(1) of the Urban and Regional Planning Act prohibits publishing or disclosure of information relating to planning without the consent of a planning authority. The **Local Government Act No. 2 of 2019**[26] seeks to provide for and "*ensure democratic participation in, and control of, decision making by the people at the local level*". This includes provisions that allow for accounts of local authorities to "*be open for inspection by members of the public during normal office hours on the payment of a prescribed fee*" (Section 44{3}) and to make public any proposed bylaws for public inspection (Section 61{1}). Section 71 provides that public notices may be made in the local newspaper, or in any other manner directed by the minister.

Other legislation relating to the land data categories includes the **Landlord and Tenant (Business Premises) Act Chapter 193**[27] and the **Rent Act Chapter 206**[28] which provide for recognition of occupancy. Laws and policies that regulate and specify tenure over other natural resources other than land include **National Forest Policy, Forest Act No. 4 of 2015**,[29] **Water Resources Management Act No. 21 of 2011**,[30] and **Zambia Wildlife Act No 14 of 2015**.[31] Rules and procedures on inheritance are mandated and regulated by the **Administrator General Act**[32], the **Intestate Succession Act**[33] and the **Wills and Administration of Testate Estates Act**.[34] The main types of land taxation data relate to rating taxation, ground rent and property transfer tax. These taxes are governed by the **Rating Act of 2018**[35], **Lands Act of 1995**[36] and **Property Transfer Tax Act Chapter 340**[37] respectively. These laws and policies are not exhaustive and other legislation on land governance that may contain clauses related to access to information may be downloaded from the **National Assembly of Zambia**[38] website.

Key institutions involved in land governance are the Ministry of Lands and Natural Resources, Ministry of Local Government and Rural Development and local authorities (City, Municipal and District Councils).

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25 https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20Urban%20and%20Regional%20Planning%20%20Act%2C%202015.pdf
26 https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20Local%20Government%20Act%20No.%202%20of%20%202019.pdf
27 https://www.parliament.gov.zm/sites/default/files/documents/acts/Landlord%20and%20Tenant%20%28Business%20Premises%29%20Act.pdf
28 https://www.parliament.gov.zm/sites/default/files/documents/acts/Rent%20Act.pdf
29 https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20Forest%20Act%202015.pdf
30 https://www.parliament.gov.zm/sites/default/files/documents/acts/Water_Resources_Management%2C%20Act%20No.%2021%20of%202011.pdf
31 https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20%20Zambia%20Wildlife%20Act%2C%202015.pdf
32 https://www.parliament.gov.zm/sites/default/files/documents/acts/Administration-General%20Act.pdf
33 https://www.parliament.gov.zm/sites/default/files/documents/acts/Intestate%20Succession%20Act.pdf
34 https://www.parliament.gov.zm/sites/default/files/documents/acts/Wills%20And%20Administration%20Of%20Testate%20Estates%20Act.pdf
35 https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20Rating%20Act%20No.%20%2021%20of%202018.pdf
36 https://www.parliament.gov.zm/sites/default/files/documents/acts/Lands%20Act.pdf
37 https://www.parliament.gov.zm/sites/default/files/documents/acts/Property%20Transfer%20Tax%20Act.pdf
38 https://www.parliament.gov.zm/

Availability of Land Data and Information

This section describes six categories of land data and information in Zambia. Modern land administration theory provides four categories of land data (derived from the core land administration functions), which prioritize the management of land to support sustainable social, economic and environmental development: **land tenure**, **use**, **value**, and **development**. The two additional categories are the enabling legislative framework for land governance within which these functions operate and "*other land data*" depending on the country context.

Figure 1 below shows the range of organizations and institutional bodies that are collectively responsible for land governance in Zambia. It is based on the Statutory Functions, Portfolios and Composition of Government as described in **Gazette Notice Number 7039 of 2021-09-24**.[39] In carrying out their functions it can safely be assumed that all these different entities generate and require information about land in the course of exercising their responsibilities.

The **Ministry of Land and Natural Resources**[40] is the primary land data custodian for cadastral data as well as housing the institutional decision-making bodies. The **Ministry for Infrastructure, Housing and Urban Development**[41] is responsible for housing and development as well as the valuation function of the national government property. Local government functions and data management (including land administration, valuation and land use planning) are the responsibility of the Ministry of Local Government and Rural Development[42] as well the city, municipal and district councils. Other major data custodians include the ministries responsible for forestry and agriculture as well as national planning. The primary source for spatial data and also the custodian for the Zambian Spatial Data Infrastructure is the **Zambia Geographical Portal**.[43] The Zambian Statistical Agency provides comprehensive statistical data on their web portal **ZAMSTATS**[44] (including data on agriculture and the environment).

Currently no comprehensive framework governs access to all data or information on land. The Access to Information Bill has remained in draft form for several years from 2002 but is expected to be enacted into law in 2023. The Zambia National Land Policy does not provide for access to all land data or information.

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39   **https://gazettes.africa/akn/zm/officialGazette/government-gazette/2021-09-24/7039/eng@2021-09-24?q=1123%20of%202021**
40   **https://www.mlnr.gov.zm/**
41   **https://www.mihud.gov.zm/**
42   **https://www.mlgrd.gov.zm/**
43   **https://www.map.gov.zm/**
44   **https://www.zamstats.gov.zm/**

Figure 1: Primary Land Governance Organizations in Zambia (Source: Author 2023)

MINISTRY OF GREEN ECONOMY AND ENVIRONMENT

Land Related Mandate

- Climate Change Policy
- Environmental Policy
- Environmental Protection and Pollution Control
- Forestry Extension and Development
- Forestry Policy

Statutory Bodies

- Zambia Environmental Management

MINISTRY OF AGRICULTURE

Land Related Mandate

- Agricultural Development

MINISTRY OF COMMERCE, TRADE AND INDUSTRY

Statutory Body

- Zambia Development Agency

MINISTRY OF MINES AND MINERAL DEVELOPMENT

Land Related Mandate

- Cadastral Surveys and Exploration
- Geological Survey and Mapping

MINISTRY OF ENERGY

Statutory Bodies

- Zambia Electricity Supply Corporation
- Rural Electrification Authority

OFFICE OF THE VICE PRESIDENT

Land Related Mandate

- Resettlement

MINISTRY OF LANDS AND NATURAL RESOURCES

Land Related Mandate

- Land Administration
- Land Policy
- Land Surveys and Mapping
- Registration of Deeds
- Beaconing
- Settlement Control
- Natural Resources Policy

Statutory Bodies

- Agricultural Land Board
- Compensation and Advice (Land Acquisition)
- Land Commission
- Land Tribunal
- Survey Control Board

MINISTRY OF INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT

Land Related Mandate

- National Housing Policy
- Public Infrastructure Development
- Urban Development Policy
- Valuation of Gov Property

Statutory Bodies

- National Housing Authority
- Road Development Agency

MINISTRY OF LOCAL GOVERNMENT AND RURAL DEVLEPMENT

Land Related Mandate

- Administration of Chiefs Affairs
- Amusement and Playparks
- Cemeteries, Crematoria and Burial Sites Policy
- Feeder and Township Roads
- Markets and Bus Stations
- Registration of Villages
- Rural Development
- Urban and Regional Planning
- Village Registers

LOCAL AUTHORITIES

Land Related Mandate

- City Councils
- Municipal Councils
- District Councils

MINISTRY OF FINANCE AND NATIONAL PLANNING

Land Related Mandate

- Census and Statistics

MINISTRY OF WATER, DEVELOPMENT AND SANITATION

Statutory Bodies

- Water and Utility Companies

MINISTRY OF TRANSPORT AND LOGISTICS

Land Related Mandate

- Airports
- Roads
- Railways

Category 1: Legal, Institutional and Policy Data

Legal and policy information on land governance in Zambia can be found on the Zambia Legal Information Institute (ZambiaLII)[45] web portal. ZambiaLII publishes all the laws of the country online and provides free access for use, download and sharing. Another important source of policy and official government bibliographic data is the Zambia Gazettes Africa[46] portal. This portal has hosted all government gazettes since 2015, is increasing its current collection and is digitizing old collections. The gazettes are freely downloadable as pdfs and there is no registration required. This is an initiative of Laws.Africa,[47] through their Open Law Africa[48] programme which aims to help "*African governments to sustainably digitize their legal information for public use, through open law software, capacity-building, training, partnerships and support.*" Other sources of legal and policy data include the National Assembly of Zambia[49] which publishes the constitution, laws, statutes and the proceedings of the Assembly. It also has an e-library[50] reserved for members. The Zambia Revenue Authority (ZRA)[51] provides some bibliographic data on property taxes while the Government's Cabinet Office[52] also provides a limited number of publications on national priorities which may include land governance matters.

The data sources listed above primarily make data available in proprietary formats such as Adobe PDF but the ZambiaLII database is the exception. It contains searchable documents using hypertext markup language (HTML) allowing the user to search the contents of all the documents in the database that might contain, for example, a specific term such as "*information.*" These resources are only downloadable as PDFs.

Category 2: Land Tenure Data

In Zambia, all land is vested in the President who holds it in perpetuity on behalf of the Citizens. The Country has a dual land tenure system, namely leasehold tenure on State Land and Customary Tenure on customary land. Surveyed land parcel boundaries data is made available at the Office of the Surveyor General through provisions of the Land Survey Act[53] which provides in section 5(e) that survey records should be made available to any member of the public upon payment of a fee.

Land parcel boundary data superimposed on satellite imagery is available online and accessible at no charge on the National Spatial Data Infrastructure (NSDI) platform[54] hosted by the Ministry of Lands and Natural Resources, but its re-use is limited to non!commercial purposes.[55]

45   https://zambialii.org/home
46   https://gazettes.africa/gazettes/zm/
47   https://laws.africa
48   https://www.openlawafrica.org
49   https://www.parliament.gov.zm/
50   https://zalico.remotexs.co/user/login
51   https://www.zra.org.zm/
52   https://www.cabinet.gov.zm/
53   https://www.parliament.gov.zm/sites/default/files/documents/acts/Land%20Survey%20Act.pdf
54   https://map.gov.zm/
55   See Terms of Use at https://map.gov.zm/

The data is also available in machine readable format and can be accessed online in the Zambia Integrated Land Management and Information System at the Ministry of Lands and Natural Resources. Topographic maps and street maps are also accessible at the Ministry of Lands and Natural resources in printed formats at a relatively small fee to cover printing costs. Information on settlement and district boundaries on the **Grid3 website**[56] is freely available online. Surveyed land parcel data is also available at the Ministry of Lands and Natural Resources under the National Titling Programme supported by **Medici Land Governance**[57] which aims to produce about 4 million certificates of title in seven years from the year 2020. This information is made available online progressively via the National Spatial Data Infrastructure portal.

The **types of data** for State land include:

- Identified survey parcel data showing the precise location (coordinates), boundaries and dimensions of each land parcel;
- General plans depicting the relative position, beacons, boundaries and dimensions of one or more parcels of land;
- Settlement boundaries; and
- Topographic maps.

The **Lands and Deeds Registry Act**[58] provides for the maintenance of registers of ownership rights data including:

- The Lands register which includes records on historical and current ownership of land parcels, length of leases, certificates of title details, sizes of land, details of transferees and transferors, subdivisions, transaction prices, mortgage entries, caveats and other entries;
- The Common leaseholds register which relates to common leasehold schemes (e.g. land on which blocks of flats or condominiums are built with common/ shared areas) with details similar to the lands register; and
- Miscellaneous registers in which other relevant records are entered.

Types of customary rights data include:

- Village registers as provided for by the **Registration and Development of Villages Act**[59];
- Registers generated by documentation of customary land rights through participatory enumerations.

56 https://data.grid3.org/datasets/a0293a6e84c143298227518eb3418d23_0/explore?location=-13.162531%2C27.818771%2C6.53
57 https://mediciland.com/projects/lusaka-zambia/
58 https://www.parliament.gov.zm/sites/default/files/documents/acts/Lands%20and%20Deeds%20Registry%20Act.pdf
59 https://www.parliament.gov.zm/sites/default/files/documents/acts/Registration%20and%20Development%20of%20Villages%20Act.pdf

Types of Settlements/Parcels or structures data, include:

- Land parcels demarcated through participatory mapping or boundary survey approach as provided for by the *Land Survey Act*;
- Informal settlement layout maps.

Customary land data is under the jurisdiction of traditional authorities. Some traditional authorities through their own initiatives, and supported by various organizations that advocate for land rights, have allowed for the demarcation of customary land in their chiefdoms into land parcels for the respective occupants as a way of improving tenure security, reducing boundary disputes and consequently improving livelihoods. Thus, data includes customary land parcels surveyed using fit-for-purpose land survey approaches through use of hand-held GPSs, satellite imagery and participatory mapping and enumeration to demarcate the land parcels and identify respective occupants or households.

Data and information on tenure may, during the usual office hours, be searched and examined by anyone and certified copies of any entry may be obtained, if required, upon payment of such fees as may be prescribed.[60] The registry data is in book format and shall be made available in a convenient written form, as a printed document or by means of an electronic device.[61] The data is available at the Ministry of Lands and Natural Resources in the form of printouts from the lands register on payment of prescribed fees, but is not accessible online. The information is stored on the Land Administration System as well as in physical files in the Registry. The information on the Land Administration System is also available in machine readable formats (but not for the public) and is currently accessed by the centralized Government e-Service portal managed by the **Smart Zambia Institute**.[62]

Tenure data provided by **Grid3**[63] (Geo-Referenced Infrastructure and Demographic Data for Development) in partnership with the Ministry of Lands and Natural Resources, Zambia Statistics Agency, publish land data online, for free and in open formats for download. Customary rights data can be obtained from cooperating partners supporting the chiefdoms that have decided to demarcate land parcels occupied by each household on customary land. These cooperating partners for chiefdoms include USAID, **Zambia Land Alliance**,[64] and the UN-Habitat/Global Land Tools Network. The customary land parcels surveyed and the register of customary land rights are available offline on GIS platforms in digital format or printed maps for parts of less than 10 chiefdoms, which translates to less than 3% of the total customary land areas. In some chiefdoms, manual village registers are maintained by village head persons pursuant to the **Registration and Development of Villages Act**.[65]

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60   Section 22(1) of Lands and Deeds Registry Act
61   Section 16(2) of Lands and Deeds Registry Act.
62   **https://www.szi.gov.zm/**
63   **https://grid3.org/category/countries/zambia**
64   **http://zla.org.zm**
65   **https://www.parliament.gov.zm/sites/default/files/documents/acts/Registration%20and%20Development%20of%20Villages%20Act.pdf**

Sources of data on upgraded informal settlements, parcels and housing structures include the local authorities in whose jurisdictions the informal settlements are located. Registries for informal settlement land rights data are found at local authorities, but are not online. Other **sources of data on public land inventory** are the **Ministry of Lands and Natural Resources**,[66] **Ministry of Infrastructure, Housing and Rural Development**,[67] **Ministry of Green Economy and Environment**,[68] **Ministry of Tourism**,[69] **Ministry of Energy**,[70] **Ministry of Water Development and Sanitation**,[71] **Ministry of Transport and Logistics**,[72] **Ministry of Agriculture**,[73] Civil Aviation Authority, **Zambia Electricity Supply Corporation**,[74] local authorities and water utility companies.

Data is not up to date or timeously updated as formal survey data lacks coverage of hundreds of thousands of parcels. However, existing formal rights data in the lands register is updated regularly on each working day at the Lands and Deeds Registry as transactions occur. Creation of customary land parcels and documentation of rights is timely due to the use of fit-for-purpose participatory mapping and enumeration approaches. Settlement land parcels data is captured at a slow pace. Structures data is captured when valuation rolls are prepared every five years or more. Registries of rights in Informal settlements are often updated by respective local authorities after transactions occur.

Gaps in surveyed land parcel boundaries data include the lack of a comprehensive register on state land and vital statistics on land tenure data because the Land Information System data needs cleaning. Customary land parcels and rights data is not demarcated in more than 280 of the **288 chiefdoms**[75] in Zambia. Settlements, parcels and data on structures are captured on paper and stored for internal use only on manual files used by valuation surveyors during preparation of valuation rolls for rating taxation purposes. The various statistical reports on land generated by the Land Administration System at the Ministry of Lands and Natural Resources are neither available online or publicly available. These reports are often generated for internal use or in response to audit queries and other similar needs because the Ministry is still undertaking data cleaning (e.g., due to some incorrect records). Therefore the reports may be inaccurate and are considered unfit for publication.

Customary tenure data is incomplete because not all customary authorities are engaged in mapping. Local authorities do not always contribute to the online platforms, especially with regards to informal settlement data, resulting in limited availability of local land records. National registry data requires payment of a fee, but some data is available on third party websites. Informal land rights data stored at local authorities is not supported by a land administration system and its records are not scanned or digitized.

66   https://www.mlnr.gov.zm/
67   https://www.mihud.gov.zm/
68   https://www.mgee.gov.zm
69   https://www.mot.gov.zm/
70   https://www.moe.gov.zm/
71   https://www.mwds.gov.zm/
72   https://www.motl.gov.zm/
73   https://www.agriculture.gov.zm/
74   https://www.zesco.co.zm/
75   https://www.mocta.gov.zm/wp-content/uploads/2020/10/CHIEFDOMS-IN-ZAMBIA.pdf

Category 3: Land Use Data

The varied sources of data on land use and zoning and enforcement of land use zoning are primarily managed by the **Ministry of Local Government and Rural Development**[76], the **Ministry of Infrastructure, Housing and Urban Development**[77] and local authorities. The website for the Ministry of Infrastructure, Housing and Urban Development has little land use data and information. It provides an overview of its services and has a media center that makes available very limited information in the form of press releases, speeches and pictures.

The **Urban and Regional Planning Act of 2015**[78] provides for a National Planning framework which sets out the general policies relating to development and use of land in the entire country, regional and local development plans and "*integrated*" and "*sectoral*" plans. This Act also allows for "*planning agreements*" on customary land and a register which describes approved land use and proposed developments. It also provides for the publication of reports, bulletins, statistics, monographs, a register of enforcement notices and other publications relating to urban and regional planning and its methodologies (Section 8(2)(b)), including planning decisions by local authorities. None of this information could be found online. Some provisions of the Urban and Regional Planning Act of 2015 impede the availability of land use information. For instance, section 9(1) provides that "*A person shall not, without the consent in writing given by, or on behalf of, a provincial or a regional planning authority, publish or disclose to any unauthorized person, otherwise than in the course of duties of that person, the contents of any document, communication, or information whatsoever, which relates to or which has come to the knowledge of that person in the course of that person's duties under this Act.*" "*A person who contravenes sub regulation (1) commits an offense and is liable, on conviction, to a fine not exceeding two hundred thousand penalty units or to imprisonment for a term not exceeding two years, or to both.*" These restrictions in the Act make it difficult for officers to readily provide land use data.

The Ministry of Local Government website has a link to the **Integrated Development Plan**,[79] but no plans are available for viewing or download. The Integrated Development Plan is available for public inspection and copies may be obtained by the public for free or at a prescribed fee which is often a relatively small amount to cover costs for photocopying or printing.[80] Prior and after adoption, a proposed local area plan must be made available for public inspection during the hours of business of a local authority for a period of thirty days at no charge.[81] Local area plans are not available online. Planning departments or sections within local authorities report on applications for planning permission granted, the variation of plans, and deferred or rejected applications.[82]

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76   **https://www.mlgrd.gov.zm**
77   **https://www.mihud.gov.zm/**
78   **https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20Urban%20and%20Regional%20 Planning%20%20Act%2C%202015.pdf**
79   **https://www.mlgrd.gov.zm/?page_id=312**
80   Section 43(2) of Urban and Regional Planning Act of 2015
81   Section 23(3) & (4)
82   Section 60

A planning department/section within a local authority maintains a register of planning applications and planning permissions issued which is available for public inspection on such terms and conditions as the local authority may determine.[83] The registers of planning permission are not available online. Planning authorities maintain registers for enforcement notices which are made available for public inspection at the offices of the local authority during ordinary office hours but are unavailable online.

The **Urban and Regional Planning (General) Regulations of 2020**[84] prescribe the content of the register of enforcement notices as follows (Section 31 (1)):

- the name and physical address of the person on whom the enforcement notice is served, property number and the road, district and the town in which the land is situated, the enforcement notice number, the date of service of the enforcement notice and brief particulars of the nature of the enforcement notice;

- the date the enforcement notice is to take effect;

- the date and effect of any determination of a planning appeals tribunal;

- brief particulars of any action taken by the person on whom the enforcement notice is served to satisfy the conditions therein, and whether or not that person has complied with the enforcement notice; and

- the date and effect of any action taken by the planning authority to enforce the enforcement notice."[85]

Data on **public land** is available offline in the lands register at the Ministry of Lands and Natural Resources and in registries at local authorities. Information on land for sanitary improvements of any kind including reclamations is available offline in digital format, paper maps and reports at the **Ministry of Water Development and Sanitation**[86] and at state-owned water and sewerage companies. Information on land for laying out new townships or the extension or improvement of any existing township is available offline digitally and in paper maps at the Ministry of Lands and Natural Resources (Land Development Fund records) and local authorities. Information on land for aviation is available for non-restricted facilities at the **Civil Aviation Authority**.[87] Data on land reserved for the construction of any railway authorized by legislation is accessible offline in digital form, paper maps and reports at the Ministry of Lands and Natural Resources, **Ministry of Transport and Logistics**,[88] **Zambia Railways Limited**[89] and the **Tanzania-Zambia Railway Authority**.[90] Information or data on land for obtaining control over land contiguous to any railway, road or other public works constructed or intended at any time to be constructed by Government is available as reports and spatial data at the Survey Department in the Ministry of Lands and Natural Resources. Information on control over land required for hydro-electric or other electricity

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83   Section 61(1) & (2)
84   **https://www.enotices.co.zm/download/statutory-instrument-no-056-of-2020-the-urban-and-regional-planninggeneral-regulations-pdf/**
85   Section 31 (1) of The Urban and Regional Planning (General) Regulations of 2020
86   **https://www.mwds.gov.zm/**
87   **http://www.caa.co.zm/**
88   **https://www.mtc.gov.zm/**
89   **https://zrl.com.zm/**
90   **https://www.tazarasite.com/**

generation and supply purposes is available offline as reports and spatial data at the Ministry of Energy, Zambia Electricity Supply Corporation, and Copperbelt Energy Company. Land for or in connection with the preservation, conservation, development or control of forest produce, fauna, flora, soil, water and other natural resources is available from Integrated Land Use Assessment reports at the Ministry of Green Economy and Environment. Data on National parks is available offline from Ministry of Tourism reports.

Category 4: Land Development Data

Land development data custodians include the Ministry of Lands and Natural Resources, Ministry of Infrastructure, Housing and Urban Development, Ministry of Local Government and Rural Development, local authorities and the Zambia Development Agency (ZDA).[91] ZDA, a quasi-government institution which falls under the Ministry of Commerce, Trade and Industry,[92] was established under the Zambia Development Act No. 11 of 2006.[93] It is the economic development agency with a mandate to promote and facilitate trade, investment and enterprise development, and to build and enhance the country's investment profile. The Zambia Environmental Management Agency (ZEMA),[94] a statutory body, is the source of impact assessment data. Impact assessment reports must be undertaken prior to land developments, as required by the Environmental Management Act No. 12 of 2011.[95] The Land Development Fund (LDF), which publishes its budget as provided for by the Lands Act of 1995,[96] established a Land Development Fund to finance the opening up of new areas for development in the local authority areas. Information on land consolidation or subdivision information is provided for by the Land Survey Act[97] and the Urban and Regional Planning Act of 2015.

Data on land expropriation, including the regulatory framework, notices and announcements of expropriated land and compensation, is published in the form of reports from the Lands Tribunal under the Ministry of Lands and Natural Resources and local authorities. Expropriation of land must be public and the "*Minister shall give notice to persons interested in such property*".[98] Such notices are often made by gazette notice in printed formats but are usually not available online. The Lands Register, which records compulsory acquisition, is publicly available in paper format but not online.

91   http://www.zda.org.zm/
92   https://www.mcti.gov.zm/
93   https://www.parliament.gov.zm/sites/default/files/documents/acts/Zambia%20Development%20 Agency%2C%202006.pdf
94   https://www.zema.org.zm/
95   https://www.parliament.gov.zm/sites/default/files/documents/acts/Environmetal%20Mangement%20 Act%2012%20of%202011.pdf
96   https://www.parliament.gov.zm/sites/default/files/documents/acts/Lands%20Act.pdf
97   https://www.parliament.gov.zm/sites/default/files/documents/acts/Land%20Survey%20Act.pdf
98   https://www.parliament.gov.zm/sites/default/files/documents/acts/Lands%20Acquisition%20Act.pdf. Section 5: Land Acquisition Act

Sources of data on land conflicts include the Lands Tribunal (under the Ministry of Lands and Natural Resources), the Ministry of Local Government and Rural Development, local authorities and Chiefdoms. The **Lands Tribunal Act of 2010**[99] provides for the Registrar to keep all the proceedings of the Lands Tribunal and to maintain a register of all orders and judgments of the Tribunal relating to State land. The information is not available online but can be accessed in paper format on request to the Tribunal Registrar.

Information on the budget allocated for development of new areas under the LDF is available in the Government Estimates of Revenues and Expenditures (Yellow Book) on the National Assembly of Zambia website at no charge. Online **annual reports prepared by the Ministry of Lands and Natural Resources**[100] contain information on local authorities that have benefited from the LDF. The Ministers administering the LDF must lay before the National Assembly of Zambia an annual statement of the income and expenditure relating to the Fund. These offline statements are available at the Publications Office at the National Assembly. Data on land consolidations or subdivision are available offline in the form of digital file layers at the Survey Department at the Ministry of Lands and Natural Resources and local authorities. Environmental impact assessment reports undertaken prior to land developments are available at the Zambia Environmental Management Agency (ZEMA); only a few of these reports are available online.

Annual reports on land development data are often published about a year or two later. Data on expropriation may be entered on the lands register as soon as the expropriation process is concluded or may take up to several months. Data on land conflicts is captured as soon as it is reported, deliberated upon, or resolved but not made available for public access for several weeks or months.

Gaps in land development data include the following:

- An apparent absence of data on comprehensive assessment of compliance levels to land administration legislation provisions;
- No statistics or details on expropriations, compensation, resettlement and other remedies provided for by the constitution and Land Acquisition Act. The Land Acquisition Act provides for a Compensation Advisory Board to advise and assist the Minister in the assessment of any compensation payable but no information is available about the operations of this Board or any reports it produces;
- A lack of data on evidence of the implementation and effectiveness of the legal framework around land disputes;
- Information on possible historical land injustice not properly documented by the Government; and
- No information or reports on land restitution of land rights.

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99   https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20Lands%20Tribunal%20 Act%202010A.PDF

100 https://www.mndp.gov.zm/

Category 5: Land Value Data

Available **land value (open market) data** includes records of land transactions on the market. Land valuation data/information identified includes valuation analyses by the Government Valuation Department and valuation roll data. Data on local/national property tax collection identified includes property transfer tax, ground rent, property rates and publications on local and national tax rates and legislation. Ground rent is a form of tax paid annually by landowners on State land who hold land under leasehold tenure (leases not exceeding 99 years). Property rates are levied annually by local authorities (City, Municipal and District councils) based on the valuation of properties as they appear in valuation rolls. Data on land markets identified in Zambia cover the Administrative Circular No. 1 of 1985 (procedure for land allocation) and newly opened land parcels made available on the market by central or local government. This is mainly land parcels formally surveyed on State land or land converted from customary land to State land. Data on structures on each land parcel in various settlements within the jurisdiction of a respective local authority is also captured during the preparation of a valuation roll for rating taxation purposes. The details captured on file include design, construction details, dimensions and state of repair of the buildings including the designated zoning. The data is normally available when a valuation roll is published, and paper extracts can be provided for a minimal fee but are not available online.

Sources of land value data include the Government Valuation Department, within the Ministry of Infrastructure, Housing and Urban Development, local authorities, Ministry of Lands and Natural Resources, **Zambia Revenue Authority (ZRA)**[101] and **Zambia Development Agency (ZDA)**.[102] Land Values (Open Market) data elements in the lands register normally show a record of transactions on each property that has been sold or bought and, in certain instances, the price declared for tax purposes is shown on the register. This information is available to members of the public who can obtain paper extracts from the register for a small fee. This information is not available online.

Land valuation information is available from the Government Valuation Department (GVD) within the Ministry of Infrastructure, Housing and Urban Development which conducts analysis on land/property values. GVD normally maintains lists of sales evidence which includes land values for various parts of the country and is stored in paper format or on spreadsheets. The compiled and analyzed information on land values is normally for internal use (within GVD) to facilitate the preparation of valuations using the comparison and other methods of valuation and is not made available to the public. Data includes values for valuation rolls across the country which are available to the public in paper format. The entire valuation roll is not publicly available, but only extracts relating to properties specified by the person requesting for information.

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101 **https://www.zra.org.zm/**
102 **http://www.zda.org.zm/**

Local and national property tax collection, based on approved land values as the basis for the computation of property transfer tax, are available at the ZRA, Ministry of Lands and Natural Resources and local authorities. The ZRA collects property transfer taxes. This ad valorem tax is charged when the land/property is sold or transferred. The information on taxes paid for each individual property is normally available on the property transfer tax clearance certification as well as on the tax administration system called **TaxOnline**.[103] The status of an individual's personal taxes, including property transfer tax, is available online to that taxpayer on the TaxOnline portal.

General information about property transfer tax application requirements is available on the ZRA website and does not require a login. Information on global tax statistics is only made available to the public when authorisation to access such information is granted. Land value estimates for rating taxation are available on valuation rolls at local authorities. The **Rating Act of 2018**[104] which provides for assessment of rateable property and levying of rates (taxes), also makes provision for the valuation roll (with information about property description, ownership details and rateable values) to be "*open to the public for inspection in paper format at the offices of a rating authority at specified dates and times*" as part of the validation process. A valuation roll cannot be approved if the provisional roll is not availed to the public. While it is usually prepared in the form of spreadsheets such as Microsoft Excel, local authorities often share them in printed formats only.

Ground rent data on eligible land is generated and stored on the Land Administration System at the Ministry of Lands and Natural Resources and made available to the public in printed format for each specific land parcel. Some services such as access to ground rent status at the Ministry of Lands and Natural Resources are available online for free on the Government's Smart Zambia Institute Electronic Services Portal called **Zamportal**[105] but one needs a login account. Local authorities provide ground rent bills in printed format. They generate ground rent and rate bills on individual properties periodically and dispatch them to ground rent and property rate payers or taxpayers can obtain them on request from local authorities. This is done physically and there is no online access.

The Ministry of Lands and Natural Resources makes available information on land markets such as newly demarcated/ subdivided land parcels, degazetted portions of forest areas, or conversions from customary land to State land. Local authorities also have information pertaining to land allocations and transactions through their respective departments of housing. The available information can be obtained in paper format on request if permission is granted. Information elements of the land markets can be obtained online from the **Zambia Statistics Agency website**[106] in the form of reports and other publications. Local authorities periodically open new areas of land for development.

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103 **https://portal.zra.org.zm/**
104 **https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20Rating%20Act%20No.%2021%20of%202018.pdf**
105 **https://eservices.gov.zm/#/service-directory**
106 **https://www.zamstats.gov.zm/**

These are often pieces of land converted from customary land to state land or forest reserves made available for development. Successful applicants are required to pay various fees to local authorities, based on information available for inspection at their respective offices. This information is not usually available online.

Land Value (open market) data may take from a few days to several years to be updated on the lands register due to delays in the land registration process. Land valuation analysis by the Government Valuation Department is updated regularly to aid in property valuations. Property transfer tax data is updated in real time at the Zambia Revenue Authority as transactions occur. There are delays of from a couple of months to more than two years in Valuation Roll preparation for rating taxation. Ground rent bills are generated in a timely manner, at the beginning of the billing period (January to December, but access to the data by the public is not provided in real time. Delays can take up to six months in some instances. Data on 'new' land offloaded on the land market is made available when the land is ready for allocation by local authorities and the Ministry of Lands and Natural Resources.

Valuation surveyors and other players in Zambia have for a long time sought a centralized open access repository of analyzed land/ property market data. Market data imperfections have sometimes resulted in different valuation surveyors making large disparities in valuations on the same land or property. Data on price declarations to the **Zambia Revenue Authority**[107] for property sold is not captured consistently on the Lands Register and hence not consistently available to the public.

Other gaps include:

- Data on rate of payment/default on Property taxes not readily available to the public;
- Data on evidence of implementation and effectiveness of land transaction, land valuation and land investment frameworks not available; and
- Data on the national government's foreign land investments is not readily available.

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107 **https://www.zra.org.zm/**

Category 6: Other Land Data

Roads, utilities and corresponding rights are available from the **Road Development Agency (RDA)**[108] and the Ministry of Lands and Natural Resources in the form of maps and reports. Reports from RDA are available online but maps from the Ministry of Lands and Natural Resources are only available to members of the public in paper format and sold at prices set to recover stationery and printing costs. Roads, utilities and corresponding rights data in form of reports and maps is updated at least quarterly. Satellite imagery showing the road network is freely accessible on the National Spatial Data Infrastructure (NSDI) portal but does not cover all parts of the country. Data on water utilities is available from the Ministry of Water Development and Sanitation and state-owned water and sewerage companies in the form of design reports and maps. Electricity utilities data is available from the Ministry of Energy and the Zambia Electricity Supply Corporation in the form of spatial data and reports but not online. **Geological/mineral resources and rights data** in the form of exploration data, geological surveys data, mining cadastral maps and mining licenses are available at the Ministry of Mines and Minerals Development but not online. Geological/ mineral resources and rights data on explorations can take several years to be updated. Roads, utilities and corresponding rights data is in the form of maps and reports which cover description and coordinates of roads, water reticulation network and power grid. Data on land acquisition and compensation made to allow construction of utilities is included in the respective reports among other data. Types of geological/mineral resources and rights data include mining rights, applications, mining rights granted, cadastral maps and registers for mining areas, geological maps, and explorations data. The **sources for roads, utilities and corresponding rights data** include the Road Development Agency, the Ministry of Water Development and Sanitation, State owned water and sanitation utility companies, the Ministry of Energy, **Zambia Electricity Supply Corporation**[109] and **Copperbelt Energy Corporation**.[110] Sources for geological/mineral resources and rights data include the mining cadastre office and the office of the Director of Geological Survey in the **Ministry of Mines and Minerals Development**[111] as well as the **Zambia Statistics Agency**.[112] Sources of natural resources and environmental mapping/rights data are the Zambia Statistics Agency, the **Ministry of Lands and Natural Resources**[113] and the **Ministry of Green Economy and Environment**.[114] Natural resources and environmental mapping/ rights data in the form of environmental statistics were last published in 2015.

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108 **http://www.rda.org.zm/**
109 **https://www.zesco.co.zm/**
110 **https://cecinvestor.com/#gallery**
111 **https://www.mmmd.gov.zm/**
112 **https://www.zamstats.gov.zm/**
113 **https://www.mlnr.gov.zm/**
114 **https://web.facebook.com/ZambiaMGEE?_rdc=1&_rdr**

Administrative and political boundaries data (digital and analogue) on international, provincial, chiefdom, district, constituency and city/municipal boundaries data may be obtained from the Survey Department in the Ministry of Lands and Natural Resources, the **Electoral Commission of Zambia**[115] and local authorities. This information is often shared for a fee as printed maps and is not available online. The data includes demographics on the administrative regions from the population census as well as land reform data on resettled households made available online through publications by the **Ministry of National Planning and Development**[116] website. National census and socio-economic indicator data made available includes population data, access to housing and services, and other social-economic indicators relating to land available from the Zambia Statistics Agency[117] and the Ministry of Finance. National agricultural census data and land indicators are included in the agricultural statistics from the Ministry of Agriculture, Ministry of Lands and Natural Resources and the Zambia Statistics Agency.

Data on asset declarations by parliamentarians are made available on request by the National Assembly of Zambia in the form of hard copies. Beneficial ownership data where applicable is captured in the lands and deeds registry and with local authorities. Public procurement data on upcoming tenders and notifications for successful bidders is published by the **Zambia Public Procurement Agency (ZPPA)**.[118] Public procurement data on public tender adverts, awards and bid amount is normally updated regularly and promptly and published online accordingly. Key land datasets for resilience and climate change include those pertaining to emergency preparedness, response and recovery and are updated online in an irregular manner. Sources of data on key land datasets for resilience and climate change include the Ministry of Green Economy and Environment, the Ministry of Lands and Natural Resources and the **Disaster Management and Mitigation Unit**[119] in the Office of the Vice President.

Administrative and political boundaries data are updated less frequently as boundaries rarely change. Land reform data on resettlement is supposed to be updated annually and published in the form of annual reports. However, the publication of the reports is delayed by more than a year in some instances. National census data/socio-economic indicators census data, due to be updated in 2020, is outdated as it could not proceed due to Covid-19 and other factors. The census was completed in September 2022 and data is available on the Zambia Statistics Agency website. Agricultural statistics from the Zambia Statistics Agency were last published in 2017. Public asset declarations at the National Assembly of Zambia are made in a timely manner in line with the law but only offline upon specific request by members of the public. Beneficial ownership data is entered on the lands register as part of the ongoing activities of land registration as transactions occur at the Ministry of Lands and Natural Resources. There are often delays from a few days to several years in updating this data. Similar delays are experienced at local authorities which mainly have manual systems of registration.

115 **https://www.elections.org.zm/**
116 **https://www.mndp.gov.zm/**
117 **https://www.zamstats.gov.zm/**
118 **https://www.zppa.org.zm/**
119 **http://www.dmmu-ovp.gov.zm/**

Gaps in the data are mainly due to the difficulty associated with accessing information maintained by data providers. In most instances the information exists but is not shared with the public or other interested organizations.

How Open is Land Data and Information in Zambia?

Category 1: Legal and Policy Data

Fully open

Category 2: Land Tenure Data

Slightly open

Category 3: Land Use Data

Partially open

Category 4: Land Development Data

Slightly open

Category 5: Land Value Data

Not open

Category 6: Other Land Data

Fully open

● Not open   ● Slightly open   ● Partially open   ● Fully open

Open Data Compliance Assessment in Zambia

This section assesses the legal policy/framework, land tenure, land use, land development, land value and other land data types described against ten open data criteria drawn from the methodologies used by the **Open Data Index**[120] and the **Open Data Barometer**.[121] This has enabled more detailed results than covered in the **2016 Open Data Barometer**[122] which only considered land ownership data.

In line with the **2019 State of Open Data report**,[123] this assessment focuses primarily but not exclusively on digital government data. It covers land governance data traditionally created or used during the business of governing; created or published at the request of governments; or collected by international organizations, civil society organizations, private enterprises and individuals. Digital data held in offline information systems is also acknowledged.

120 2016/2017 Global Open Data Index methodology. **https://index.okfn.org/methodology/**

121 Open Data Barometer Methodology. 4th ed. 2016.
     https://opendatabarometer.org/4thedition/methodology/

122 Open Data Barometer. 4th ed Zambia 2016.
     https://opendatabarometer.org/4thedition/detail-country/?_year=2016&indicator=ODB&detail=ZMB

123 State of Open Data: histories and horizons. 2019. **https://stateofopendata.od4d.net/**

Table 3: Ten Open Data Criteria and Descriptions

CRITERIA	DESCRIPTION
Online	Availability of key land resources and whether or not the data is available online or offline
Accessible	Describe how accessible the data is to users. Consider whether you are required to register, log in or request access in order to be able to access the resource.
Free	There is no charge for the data.
Timely	Data is updated according to an acceptable time frame.
Metadata	Information that explains the origin of the dataset and how it is maintained. It could be information about the structure of the data, the type of data, the quality of the data or the conditions determining the inclusion/exclusion of data.
Standards	Information that describes whether the data conforms to a particular standard if appropriate. Consider whether the data is only available in proprietary formats, or whether open formats are used. It also may includes evidence of standards for a particular type of content domain such as land administration data (Land Administration Domain Model (LADM)-ISO 19152:2012)
Downloadable	The data can be downloaded in bulk in open formats.
Open licence	The data is licensed for legal reuse by anyone, using, for example, a Creative Commons Attribution by 4.0 International licence.
Machine-readable	Presented in open formats which can be read electronically without human intervention, for example, APIs (application programming interfaces.)
Uniform Resource Identifiers	A URI may be thought of as a permanent name given to an online information resource so that it can always be identified by search queries.

Table 4: Open Data Compliance Scoring Categories

SCORE	DESCRIPTION
Fully/Very Open	The digital data meets all or most of the open data criteria.
Partially Open	The digital data meets more than half of the open data criteria.
Slightly Open	The digital data meets few of the open data criteria or there is digital land governance data but it is not yet online.
Not Open	There is no evidence of digital or open data.

Table 5: Overall Results of the Open Data Assessment for Zambia's Land Data

	Online	Accessible	Free	Timely	Metadata	Standards	Downloadable	Open licence	Machine readable	Linked Data (URIs)	TOTAL
Legal	Fully Online	Partially Accessible	Fully Free	Fully Timely	Full Use of Metadata	Full Use of Standards	Fully Downloadable	Full Use of Open Licenses	Partially Machine-readable	No Linked Data	Fully Open
Land Tenure	Slightly Online	Slightly Accessible	Slightly Free	Slightly Timely	Slight Use of Metadata	Slight Use of Standards	Slightly Downloadable	Slight Use of Open Licenses	Slightly Machine-readable	No Linked Data	Slightly Open
Land Use	Slightly Online	Slightly Accessible	Partially Free	Fully Timely	Full Use of Metadata	Full Use of Standards	Partially Downloadable	Partial Use of Open Licenses	Partially Machine-readable	No Linked Data	Partially Open
Land Devpt	Slightly Online	Slightly Accessible	Slightly Free	Slightly Timely	No Use of Metadata	No Use of Standards	Not Downloadable	No Use of Open Licenses	Not Machine-readable	No Linked Data	Slightly Open
Land Value	Not Online	Not Accessible	Not Free	Not Timely	No Use of Metadata	No Use of Standards	Not Downloadable	No Use of Open Licenses	Not Machine-readable	No Linked Data	Not Open
Other Land Data	Partially Online	Fully Accessible	Fully Free	Fully Timely	Full Use of Metadata	Full Use of Standards	Fully Downloadable	Partial Use of Open Licenses	Partially Machine-Readable	Partially Linked Data	Fully Open
OVERALL	**Partially Online**	**Slightly Accessible**	**Partially Free**	**Partially Timely**	**Partial Use of Metadata**	**Partial Use of Standards**	**Partially Downloadable**	**Partial Use of Open Licenses**	**Partially Machine-readable**	**Slightly Linked Data**	**Partially Open**

Criteria 1: **Online**

Online open data is "*digital data that is made available with the technical and legal characteristics necessary for it to be freely used, re-used, and redistributed by anyone, anytime, anywhere*".[124] Online open data on the Internet offers equal access for everyone who has Internet access and encourages transparent, accountable, efficient, responsive, and effective governments and civil society and private sector organizations.

For this criterion, the primary focus is on land governance datasets that are available online, including via tools for mobile and offline use. It also notes datasets that are digital and used online within government and other organizations, but which are not yet publicly available online. A next step for a government could be to make internal digital datasets publicly available on the Internet.

In January 2023, there were 4.30 million Internet users in Zambia, indicating Internet penetration of 21.2%, an increase of 2.8% over the results for 2021.[125] While there is increasing demand by the growing population of Internet users for online access to the country's official and authoritative land datasets, 15.99 million people in Zambia (78.8% of the population) did not use the internet at the start of 2023.

How much of Zambia's land related data is online?

Not Free	Slightly Free	Partially Free	Fully Free

Partially Online

Table 6: How much of Zambia's land data and information is online?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework Data	*Fully Online*	Zambia's primary source for online legislation, including the Constitution, is the National Assembly website which offers PDF formats of all legislation. ZambiaLII, provided in partnership with Laws.Africa offers html and pdf formats but is currently incomplete while it migrates content from its former site. The FAOLex database offers national legislation, policies and bilateral agreements on food, agriculture and natural resources management.
Land Tenure Data	*Slightly Online*	Zambia's Integrated Land Management & Information System, the hub for the Land Titling (systematic land registration) programme, has been in full operation offline since June 2014. The following land tenure data is offline: • Spatial data survey diagrams and general plans at the Ministry of Lands and Natural Resources; • Lands and common leaseholds registers and village registers and customary land occupancy certificates; • Spatial customary land parcels and the customary land rights register; • Spatial land parcels in informal settlements, layout maps for informal settlements and the register of informal settlement land rights; Reports and spatial data on water and sanitation utilities, electricity utilities and mining cadastral/geological survey/licensing data. Road Development Agency Reports and Spatial data on roads are online. The Slum Dwellers International (SDI) network of community-based organizations of the urban poor in 32 countries and hundreds of cities and towns across Africa, Asia and Latin America provides online visualized Zambian data of cities and settlements.

124 International Open Data Principles. **https://opendatacharter.net/principles/**
125 **https://datareportal.com/reports/digital-2023-zambia?rq=zambia**

CATEGORY	SCORE	NOTES
Land Use Data	*Slightly Online*	The National Spatial Data Infrastructure (NSDI) Maps Portal supplies public and free access to read only online spatial data. The African Development Bank's Zambia Data Portal was not online on 2 March 2022. The Central Statistical Office's 2015 Environmental Statistics report is read-only. The following datasets and information are offline: • Ministry of Water Development and Sanitation's spatial data and reports on public land for or in connection with sanitary improvements of any kind including reclamations; • Ministry of Transport and Logistics' data on aviation land and data on construction of railways; • Ministry of Lands and Natural Resources' spatial data and reports on land for obtaining control over land contiguous to any railway, road or other public works. • Zambia Electricity Supply Corporation's spatial data and reports on land for obtaining control over land required for or in connection with electricity generation and supply purposes; • Ministry of Green Economy and Environment Forest data for or in connection with the preservation, conservation, development or control of forest produce, fauna, flora, soil, water and other natural resources. LandMatrix, an online open access digital platform provides details (data, infographics, charts, maps, and other material) of land deals in Zambia. The ISRIC–World Soil Information Database offers downloadable open soil data. Zambian data produced as part of the World Bank's Satellite Monitoring Service of Urbanization in Africa project, in partnership with the Center (DLR), is available online.
Land Development Data	*Slightly Online*	Land Development Fund (LDF) budgets are set out within the online Government estimates of revenues and expenditures. No other land development data is online including the following datasets: • Ministry of Local Government and Rural Development's national planning framework and regional development plans; • Local authorities' Integrated development plans, local area plans, sectoral plans, planning agreements and the register of planning permission; Spatial data on land consolidation or subdivision, records of land compulsorily acquired in the digital land administration system or register of all orders and judgments of the Lands Tribunal.
Land Value Data	*Not Online*	Records of transactions on the lands register on each property; property sales evidence and analysis; land values approved as basis for property transfer taxation; data on newly 'created' land parcels; property transfer tax charged and collected on property; and reports on ground rent collection are all offline.
Other Land Data	*Partially Online*	The Zambia Data Portal offers visualized digital data for export. Zambia Public Procurement Authority offers online public tender adverts and awards. The Ministry of Lands and Resettlement spatial administrative and political boundaries data and Zambia Statistics Agency's socio-economic demographic data within administrative and political boundaries are offline. The Africa Portal and the Regional Centre for Mapping of Resources for Development (Kenya) Geoportal offer general online digital datasets or documents which are related to land governance. The Climate Change Knowledge Portal provides online historical and projected climate data.

Overall Score: Partially Online

Criteria 2: Accessibility

This criterion assesses whether the land data is easily discoverable and accessible, and made available without bureaucratic or administrative barriers which can deter people from accessing it. This includes seeing whether users must identify themselves through registration, log in, or a request for access. It is normal for users who wish to bulk download data or use an API to supply an email address to receive updates of the data. This criterion also assesses whether access is easy for people with disabilities.

In the future, initiatives could be introduced to raise awareness of open data, promote data literacy, build capacity for effective use of open data, and ensure citizen, community, and civil society and private sector representatives have the tools and resources they need to effectively understand how public resources are used.[126]

Is Zambia's land data and information is accessible?

Slightly Accessible

- **Not Accessible**
- **Slightly Accessible**
- **Partially Accessible**
- **Fully Accessible**

Table 7: How much of Zambia's land data and information is accessible?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework Data	*Partially Accessible*	Zambia's primary sources for online legislation, including the Constitution, are in pdf format which is partially accessible. ZambiaLII, provided in partnership with Laws.Africa, offers html and pdf formats, and does not require any login.
Land Tenure Data	*Slightly Accessible*	Road Development Agency Reports and Spatial data on roads are accessible.
Land Use Data	*Slightly Accessible*	The National Spatial Data Infrastructure Portal, LandMatrix, and the ISRIC–World Soil Information Database are accessible.
Land Development Data	*Slightly Accessible*	Land development fund (LDF) budgets are set out within the online Government estimates of revenues and expenditures.
Land Value Data	*Not Accessible*	There is no online data.
Other Land Data	*Fully Accessible*	The Zambia Data Portal offers visualized digital data for export. Zambia Public Procurement Authority offers online public tender adverts and awards. The Africa Portal and the Regional Centre for Mapping of Resources for Development (Kenya) Geoportal offer general online digital datasets or documents which are related to land governance.

Overall Score: Slightly Accessible

Criteria 3: Free

This criterion assesses whether the online land data is released free of charge. It excludes bibliographic data such as online articles.

Is Zambia's land data and information free of charge?

Partially Free

● Not Free   ● Slightly Free   ● Partially Free   ● Fully Free

Table 8: How much of Zambia's land data and information is free of charge?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework	*Fully Free*	Zambia's online legislation is free.
Land Tenure Data	*Slightly Free*	Road Development Agency Reports and Spatial data on roads are free.
Land Use Data and Information	*Partially Free*	The National Spatial Data Infrastructure Portal, LandMatrix, and the ISRIC–World Soil Information Database are free.
Land Development Data and Information	*Slightly Free*	Land Development Fund (LDF) budgets within the online Government estimates of revenues and expenditures are free.
Land Value Data	*Not Free*	There is no online data.
Other Land Data	*Fully Free*	The online databases are free.
	Overall Score: Partially Free	

Criteria 4: **Timeliness**

This criterion assesses whether open data is released in a timely manner, without undue delay, whether it is comprehensive, accurate, and whether it is released in accordance with prioritization informed by consultations with open data users, including citizens, other governments, and civil society and private sector organizations. Timely data is released in its original, unmodified form, and linked to any relevant guidance, documentation, visualizations or analyses. To the extent possible, released data is disaggregated to the lowest levels of administration, including disaggregation by gender, age, income, and other categories.

How timely is Zambia's land related data updated?

Partially Timely

● Not Timely　　● Slightly Timely　　● Partially Timely　　● Fully Timely

Table 9: How much of Zambia's land data and information is released and updated timely?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework Data	*Fully Timely*	The legal databases are updated regularly, but ZambiaLii is currently incomplete.
Land Tenure Data	*Slightly Timely*	The link for the Road Development Agency reports was not working.
Land Use Data	*Fully Timely*	The online digital databases are updated regularly.
Land Development Data	*Slightly Timely*	Land Development Fund (LDF) budgets within the online Government estimates of revenues and expenditures are produced annually.
Land Value Data	*Not Timely*	There is no online data.
Other Land Data	*Fully Timely*	The online digital databases are updated regularly.
	Overall Score: Partially Timely	

Criteria 5: **Metadata**

This criterion assesses whether the land governance data include consistent core metadata, that the data is fully described, all documentation accompanying the data is written in clear, plain language; and data users have sufficient information to understand the source, strengths, weaknesses, and analytical limitations of the data.

Metadata is the data providing information about one or more aspects of data within a dataset. It is used to summarize basic information about data, which can make it easier to track and work with specific data. Core metadata is a limited set of metadata which provides important, fundamental information about data, and should be defined by a consistent vocabulary across all datasets. Core metadata elements may include the dataset title, source, publication date, and format, as well as other relevant information that describes the dataset and supports discoverability (that is, makes it easier for users to search for and find the dataset).

Is Zambia's land related data accompanied by metadata?

Partial Use of Metadata

⬤ No Metadata   ⬤ Little Metadata   ⬤ Partial Metadata   ⬤ Full Metadata
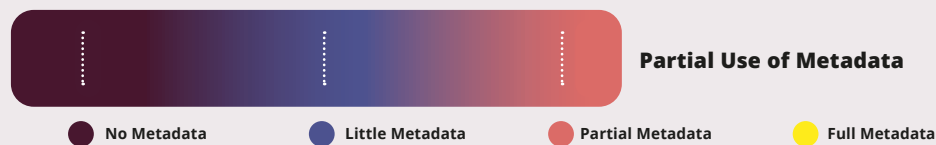
Table 10: How much of Zambia's land data and information is accompanied by metadata?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework Data	*Full Use of Metadata*	
Land Tenure Data	*Slight Use of Metadata*	The link for the Road Development Agency reports was not working.
Land Use Data	*Full Use of Metadata*	The online digital databases are updated regularly.
Land Development Data	*No Use of Metadata*	Most land development data is offline.
Land Value Data	*No Use of Metadata*	There is no online data.
Other Land Data	*Full Use of Metadata*	The online digital databases provide metadata.
Overall Score: Partial Use of Metadata		

Criteria 6: Standards

This criterion assesses whether the organization releasing the land data implements consistent, open standards covering data formats, interoperability, structure, and common identifiers when collecting and publishing data. This also considers whether the organization supports increased interoperability between existing international standards, the creation of common, global data standards where they do not already exist, and whether it ensures that any new data standards created are, to the greatest extent possible, interoperable with existing standards.

How much of Zambia's land related data uses standards?

Partial Use of Standards

● Does Not Use   ● Uses Slightly   ● Uses Partially   ● Fully Uses

Table 11: To what extent are appropriate data standards applied to land data in Zambia?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework Data	*Full Use of Standards*	The legal databases meet standards.
Land Tenure Data	*Slight Use of Standards*	The link for the Road Development Agency reports was not working.
Land Use Data	*Full Use of Standards*	The online digital databases meet standards.
Land Development Data	*No Use of Standards*	Most land development data is offline
Land Value Data	*No Use of Standards*	There is no online data
Other Land Data	*Full Use of Standards*	The online digital databases meet open standards. The Zambia Public Procurement Authority offers online public tender adverts and awards in conformance with the Open Contracting Standard.
Overall Score: Partial Use of Standards		

Criteria 7: Downloadable

This criterion assesses whether the land governance data are made available for users to download in human-and machine-readable formats, including via Application Programming Interfaces (APIs) (software intermediaries that allow two applications to talk to each other). It does not assess the bibliographic articles.

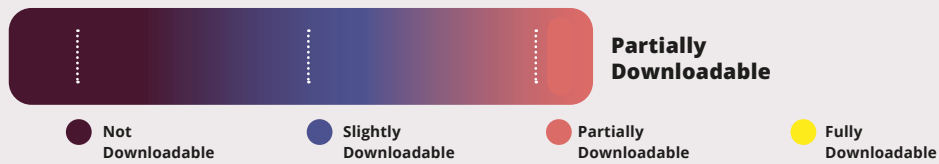## How much of Zambia's land data and information is downloadable?

Partially Downloadable

- Not Downloadable
- Slightly Downloadable
- Partially Downloadable
- Fully Downloadable

Table 12: How much of Zambia's land data and information is downloadable?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework Data	*Fully Downloadable*	Html and PDF formats are downloadable for content.
Land Tenure Data	*Slightly Downloadable*	The link for the Road Development Agency reports was not working. The Spatial Data Infrastructure Portal is downloadable in csv formats.
Land Use Data	*Slightly Downloadable*	Government data is mostly offline. The digital datasets can be downloaded
Land Development Data	*Not Downloadable*	Most land development data is offline.
Land Value Data	*Not Downloadable*	There is no online data.
Other Land Data	*Fully Downloadable*	The data portals offer data downloads.
	Overall Score: Partially Downloadable	

Criteria 8: Open License

This criterion assesses whether land governance data are released under an open and unrestricted license that ensures that data users can easily find and understand the conditions of their data access and re-use. The most open license most used by governments is the Creative Commons Attribution CC-BY International 4.0 License which allows users to copy and redistribute the information provided they attribute the copyright owner.

How much of Zambia's land related data makes use of open licenses?

Partial Use of Open Licenses

● Does not use   ● Slightly Uses   ● Partially Uses   ● Fully Uses

Table 13: How much of Zambia's land related data makes use of open licences?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework Data	*Full Use of Open Licenses*	Permission from the Clerk of the National Assembly of Zambia is required for any reproduction of, or extended quotation from, the records, and is usually given provided suitable acknowledgement is made in the work. ZambiaLii has an open license.
Land Tenure Data	*Slight Use of Open Licenses*	Most of the land tenure data is offline. The National Spatial Data Infrastructure Portal allows personal non-commercial use, provided you retain all copyright and other proprietary notices.
Land Use Data and Information	*Partial Use of Open Licenses*	While government data is offline, Land Matrix and ISRIC's Data Hub have open licences.
Land Development Data and Information	*No Use of Open Licenses*	Most land development data is offline.
Land Value Data	*No Use of Open Licenses*	There is no online data.
Other Land Data	*Partial Use of Open Licenses*	Some of the data portals offer open licences.
Overall Score: Partial Use of Open Licenses		

Criteria 9: Machine Readability

This criterion assesses whether the land governance data is made available in formats that ensure it can be read and manipulated by either machines or humans (machine-readable and human-readable). Machine-readable data is "*Data in a data format that can be automatically read and processed by a computer.*"[127] This is needed by analysts downloading data in bulk, for example, for policy development, analysis or visualization on their computers.

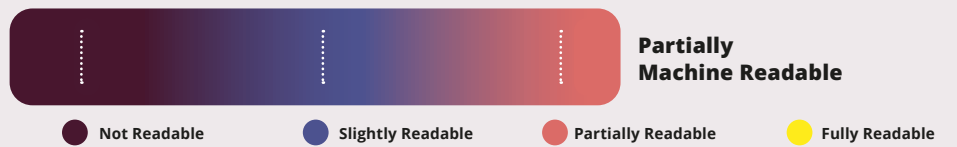**How much of Zambia's land related data is machine readable?**

Partially
Machine Readable

● Not Readable   ● Slightly Readable   ● Partially Readable   ● Fully Readable

Table 14: How much of Zambia's land data and information is machine readable?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework Data	*Partially Machine-readable*	The National Assembly website's legislation is only in PDF (not easily readable) format. ZambiaLii has machine-readable html and PDF (not easily readable) formats
Land Tenure Data	*Slightly Machine-readable*	Most of the land tenure data is offline. The National Spatial Data Infrastructure Portal is machine-readable.
Land Use Data	*Partially Machine-readable*	While government data is offline, Land Matrix and ISRIC's Data Hub are machine-readable.
Land Development Data	*Not Machine-readable*	Most land development data is offline.
Land Value Data	*Not Machine-readable*	There is no online data.
Other Land Data	*Partially Machine-readable*	Some of the data portals are machine-readable. The Zambia Public Procurement Authority offers online public tender adverts and awards in conformance with the Open Contracting Data Standard.
Overall Score: Partially Machine Readable		

127 Open Data Handbook. **https://opendatahandbook.org/**

Criteria 10: Linked Data (Uniform Resource Identifiers - URI)

This criterion assesses whether land governance data is made available as Linked Data, which is "*structured data which is interlinked with other data, so it becomes more useful through semantic queries. It builds upon standard Web technologies such as HTTP, RDF and URIs, but rather than using them to serve web pages only for human readers, it extends them to share information in a way that can be read automatically by computers. Part of the vision of linked data is for the Internet to become a global database*".[128]

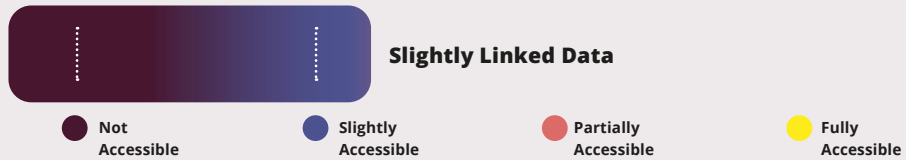**How much of Zambia's land related data is available as linked data?**

Slightly Linked Data

● Not Accessible   ● Slightly Accessible   ● Partially Accessible   ● Fully Accessible

Table 15: How much of Zambia's land related data is available as linked data?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework Data	*No Linked Data*	There is no reference to Linked Data.
Land Tenure Data	*No Linked Data*	There is no reference to Linked Data.
Land Use Data	*No Linked Data*	There is no reference to Linked Data.
Land Development Data	*No Linked Data*	There is no reference to Linked Data.
Land Value Data	*No Linked Data*	There is no online data.
Other Land Data	*Slightly Linked Data*	Zambia Public Procurement Authority offers online public tender adverts and awards in conformance with the Open Contracting Data Standard. Each tender is allocated a unique OCID (Open Contracting Identifier)
Overall Score: Slightly Linked Data		

128 What is linked data? Accessed Feb 11, 2022. **https://jsld.org/**

Conclusions

The report identifies the various Government and public sector sources that provide country-level land-related data or information. It ascertains the availability, timeliness and gaps in legal, institutional and policy, land tenure, land use, land development, land value, and other land data. The report also considers whether land governance data is collected and managed in open and re-usable formats in Zambia and establishes a baseline for targeted interventions to improve the land information ecosystem in Zambia.

Land Data and Information is Partially Open

While the rankings and scores for Zambia in the global open data indices[129] indicate that little to no land data is openly available, this assessment concludes that since 2016 Zambia has made some progress in making land data more open. **Legal and policy data and resources are considered to be fully open**. **Land use data is considered partially open** although more data needs to be more accessible and online. **Land tenure and land development data is only a little open** and improvements need to be made across all of their open data criteria. **Land valuation data is not open** and improvements are needed across all of their openness criteria. Related environment, energy, mineral rights, public procurement and **other statistical data is fully open and available** from the Zambia Statistics Agency and the relevant sector organizations.

A Legal Framework for Open Data and Information is Developing

A freedom of information bill is expected to be presented to Zambia's National Assembly in 2023. This would strengthen and make operational the comprehensive but still developing legal framework for good data governance and access to information. The Constitution establishes a right to information, supporting Zambia's ratification of international instruments (the International Covenant on Civil and Political Rights and the African Charter on Human and Peoples' Rights) that guarantee access to information as a fundamental right. The Statistics Act provides for proactive release of statistical data to the public. The Electronic Government Act requires that where data is made public it should be in machine readable formats and must be accompanied by metadata and it makes provision for sharing data (including land data) electronically among public bodies. The Data Protection Act and the Electronic Communications Act protect personal data and secure a safe and effective environment for digitisation and online transactions.

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129 Note that Zambia is not included in the 2022 Global Data Barometer rankings

The Cyber Security and Cyber-Crimes Act, which addresses cyber-crime and protects critical information infrastructure, completes the legal data governance frameworks.

Land Data and Information is Moving from Analogue to Digital

Government Ministries generate a significant amount of land data under each land data category. The considerable amount of publicly available land data in analogue formats reduces accessibility and inhibits efforts to open it up. Despite this, many government departments now have digital platforms or digital information systems that share data, albeit in a restricted manner. They provide a strong foundation for increased digitisation and data availability. This assessment concludes that overall, Zambia's land data is neither online nor sufficiently open. Increased access to Internet services has increased demand for free, accessible, and usable land data and information. The Government's response has been to provide e-services through the Smart Zambia Institute's Zamportal which is designed to facilitate payment for services and other functions online. The National Spatial Data Infrastructure, created by the Ministry of Lands, permits access to data on land parcels. While these initiatives represent significant progress, more open digital land data would increase their use and scope.

Spatial Data Infrastructures and Online Portals do Exist

The National Spatial Data Infrastructure (NSDI) platform provides free access to surveyed land parcels and boundary data country-wide. It aims to support and enable the development of land administration services and improve land related service delivery. The data in the NSDI is not sufficiently open, and national parcel data is incomplete. The Zambia Statistics Portal provides national level data on a range of indicators, including a few related to land. None of the government services in the Zamportal relate to land administration functions. The next step for the government of Zambia is to build on these foundations and systematically provide more open land data and online services.

Valuation and Land Market Data and Information

While all categories of publicly available land data except land valuation data released at least a little open data, its timeliness was mostly inadequate. As land is both a commodity and the basis for significant economic activity and revenue collection there is an opportunity to improve valuation data and release it publicly to the marketplace in a timely manner.

Recommendations

Zambia notably is already providing access to a range of e-government services and has established the beginnings of a robust framework for open data. This places Zambia in the enviable position of having already started to provide the necessary institutions and the data infrastructure to contribute to significant economic growth through digital innovation and services. Zambia should strive to increase public access to land data that supports interoperability, data sharing and re-use. These recommendations to open up more data for digital services in the land sector could also be applied to digital services across the public sector.

Legal and Policy Reforms

Building on the Constitution's provision for access to information as a fundamental right and legislation in place for data protection and security, cyber crimes and the provision of statistical data in machine readable formats, it is recommended that Zambia:

- Complete the process to develop an access to information law based on the model **Access to Information**[130] (ATI) Law adopted by the African Union. This will complement existing legal frameworks and provide the legislation to support implementation of the constitutional rights.

- Conduct a review of land governance and administration legislation to identify opportunities to update the provisions relating to the public right to access information. Research has shown several instances where access to information is mentioned under land specific legislation, but the clauses have not been updated to reflect an increasingly digital world and Zambia's drive towards the provision of online services.

- Review whether the Zambia National Lands Policy may be amended to make provision for open land tenure data and information. In its current state, it only provides for the establishment of a mechanism for the dissemination of statistics and information on land allocations.

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130   African Union. AU Repository. Model Law on Access to Information for Africa. **https://archives.au.int/ handle/123456789/2062**

- Review the provisions of the Urban and Regional Planning Act to better balance the need for confidentiality with the right to access information on land use planning in accordance with open data requirements. The Urban and Regional Planning Act impedes the availability of land use data information by prohibiting publication or disclosure of information relating to planning without the consent of a planning authority (section 9(1).

Improve Land Data Publishing

Building on Zambia's efforts to digitize government services and provide e-platforms for the delivery of services across a range of sectors such as business, immigration, tourism and taxes, it is recommended that Zambia:

- Expand the scope of e-government services to include the delivery of land related services (transfers of land, land taxes, land development applications). This would broaden the bundle of services available, strengthen the use and importance of the e-platform, and provide an improved return on the investment in the IT infrastructure and system. Potential services could include land transfers and valuations for taxation as well as applications for development.
- Expand the range of online government services to include more open and interoperable land data administration services, using the ZAMPORTAL or on another platform. This would include a comprehensive analysis to determine the most critical types of uses for land data and take steps to fully open up this data.
- Make publicly available current and legacy data, which is housed and archived on the internal Land Administration System at the Ministry of Lands and Natural Resources. Review, process and publish this data and/or aggregated data in order to provide reliable statistics on land.

Improve Openness of Land Value Data

Prioritize opening up valuation data for use and re-use by government departments. The total lack of open valuation data inhibits the functioning of an equitable tax and revenue generation system to support land administration. The report on tax performance and options for reform by the **International Growth Centre (2016)**[131] cited "*the weak monitoring of property transactions*" and lack of a "*centralized unit to provide information on the value of property*" as two key issues for reform. Improved access to valuation information can increase transparency and enable better planning, improved revenue estimation and support computer-aided mass appraisals. It is critical for driving economic development and diversifying revenue collection in Zambia.

131 Jibao, S. (2016). Property taxation, capital gains tax, and mining rights tax in Zambia. International Growth Centre. Retrieved March 28, 2023, from **https://www.theigc.org/sites/default/files/2017/02/Jibao-2017-final-report.pdf**

Improve Openness of Existing Data Portals

Investigate which land and data services could be considered for the Zamportal. While Zambia has already started to make government data more open, a review of the Zamportal reveals that it does not substantially include core land administration services.

Improve the Zambia NSDI (which provides free access to data on land services and infrastructure as well as cadastral data) to make its data more open, accessible and available for legal re-use in line with the global Open Data Charter principles. The attribute data of the cadastral lots is available for download as CSV files, but the vector data, including the cadastral lots, are available only for download as image files, limiting their utility.

Improve the publication of land development data to address gaps in its availability. Consider publication on the Zambia NSDI, and investigate the development of local/ provincial land portals for relevant land development data.

General Recommendations

Zambia's notable progress in opening up land data for re-use in support of innovation and e-service delivery is shown by this report's finding that **land data is partially open**. However significant improvements toward full openness are still needed to realize full e-service delivery and improve land governance. The following reforms and recommendations for the publishing of more open land data and information are offered or consideration:

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- prioritize making all categories of non-personal land administration data publicly available and accessible in line with global web development and accessibility standards.[132] This report's finding of **little compliance with the global open data accessibility principle** is a major concern.

- Continue to review and apply minimum requirements for providing metadata for each land data category and type (bibliography, statistical, spatial) and ensure that data custodians adhere to these when publishing land data and information.

- Develop policies for publishing downloadable raw non-personal data in machine readable formats alongside visualizations and other summarized results to enable re-use of data and information by specialist users and members of the public in support of innovation.

- Engage data stakeholders on applying land sector specific and open data standards when planning to publish open land data. Use of these standards will promote interoperability and re-use of data for enhanced data integration and decision making. Consider specialized training on such standards as the Land Administration Domain Model (LADM) Standard ISO 19152.109

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132 **https://www.oxfordsemantic.tech/fundamentals/what-is-w3c-what-are-the-w3c-standards-why-do-they-matter**

— Use the findings of this report to diagnose problems and identify opportunities for opening up Zambia's land data. This report can be the first step in implementing in Zambia the Open Up Guide for Land Governance which is a tool for use by national and local authorities mandated to or interested in making their land governance data open and available for others to re-use.

Zambia is opening up land data and providing e-services on a range of government activities on its ZAMPORTAL and the Zambia NSDI Portal. These services require access to reliable land data that is interoperable, online, accessible, free, timely, downloadable, machine-readable and meets international standards. Inadequate digital and open land data could delay achieving these laudable e-governance goals. Improved access to land data will expand the range of e-government services, improve revenue collection and create efficiencies in infrastructure investments. Implementing these recommendations will improve the availability and openness of land data and information in Zambia and support better land governance.

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