State of Land Information in Malawi

An Open Data Assessment



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 Namibia, South Africa, Uganda, South Sudan, Tanzania, Kenya, Malawi and Senegal. 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.

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Introduction

Why Open Data

The governance of land in Malawi is increasingly being contested and challenged (de Satge 2021), a situation not unlike that facing many developing countries. As one of the poorest countries in the world (UN 2022) with a fragmented tenure system, Malawi illustrates the land governance problems that result in increased inequality, conflict and social stratification (Peters 2013, Chinsinga 2008, Peters 2002). The Malawi Growth and Development Strategy (MGDS) III (Government of Malawi 2017) sets out a number of development goals, which recognise the importance of information infrastructures for ensuring good governance in support of sustainable agricultural development.

Malawi's recognition that data, information and an underlying infrastructure play a role in facilitating economic development is supported by research on how findable, accessible, interoperable, and reusable data support innovation, improved service delivery and accountability. 1,2,3,4 Opening up data is key to helping deliver the goals and objectives of the MDGS III as well as the sustainable development goals as set out in the Malawi/UN Sustainable Development Cooperation Framework (UNSDCF) for 2019-2023 (UN 2019). Malawi could become a part of a global effort to improve access to land information, including global land indicators, to achieve sustainable development and improve land governance and decision making.

International measures of openness assume online and internet connectivity, but this is often not the case in developing countries. In countries with low levels of internet penetration, providing information at town halls, local administrative offices and through radio and

- 1 European Commission Final Report and Action Plan from the Expert Group on FAIR Data: Turning Fair Into Reality, 2018. Retrieved November 2022, from https://ec.europa.eu/info/sites/default/files/turning fair into reality 0.pdf 2 IDC White
- 2 Paper: Digitization of the World from Edge to Core, 2018. Retrieved November 2022, from https://www.seagate.com/files/www-content/our-story/trends/files/idc-seagate-dataage-whitepaper.pdf
- 3 Policy Paper–UK Government National Data Strategy 2020. Retrieved November 2022, from https://www.gov.uk/government/publications/uk-national-data-strategy/national-data-strategy#fn:2
- 4 Data: A New Direction, 2021. Retrieved November 2022, from https://www.gov.uk/government/consultations/data-a-new-direction/outcome/data-a-newdirection-government-response-to-consultation

newspapers remain important media for transparency and accountability. In January 2022, there were 4.03 million Internet users in Malawi, indicating Internet penetration of 20.2%, an increase of 17.4% on their 2021 score.⁵ 18% of Malawi's population lives in urban centres, while 82% lives in rural areas. While there is increasing demand by the growing population of Internet users for online access to the country's official and authoritative land datasets, 15.88 million people in Malawi did not use the internet at the start of 2022, meaning that 79.8 percent of the population remained offline at the beginning of 2022.

It is important that the indices quoted below and the assessment that follows be understood in this context. This assessment provides a baseline and serves as a diagnostic tool that can be used to address data gaps, support the publication of more gender disaggregated data and improve information for policy making, rather than to assess the relative merit of information dissemination and governance in Malawi. These assessments are tools for improvement in the digital world, rather than statistics for condemnation.

Global Indices

Despite Malawi enacting access to information legislation in 2017, it performed poorly in the 2022 Global Data Barometer⁶ survey with an overall openness score of 15 out of 100, and noticeably scoring zero for the openness of its land data. The 2020-2021 Open Data Inventory (ODIN)⁷ scored Malawi 40 out of 100 and ranked it 135 out of 187 countries. This indicator, which measures the completeness of mostly statistical data and adherence to open data standards, does not specifically assess land data, although it includes some indicators on the built environment and land use. An openness score of 5% in the (2016/2017) Global Open Data Index⁸ indicates a very low level of open data, with Malawi ranking 90 out of the 94 countries surveyed. Some progress is reported for the openness of statistical data scoring 30% and the openness of budget data scoring 45%, but the score for the other land and related categories was 0%. All three indices indicate that there is no open land data in Malawi. An active programme is needed to implement and make operational open access to land governance information despite the progress made in opening up financial and statistical information.

- 5 https://datareportal.com/reports/digital-2022-malawi?rq=malawi
- 6 https://globaldatabarometer.org/results/
- 7 https://odin.opendatawatch.com/Report/countryProfileUpdated/MWI?year=2020
- 8 https://index.okfn.org/place/mw.html

Objectives of the Report

This report serves as a diagnostic tool for the land information ecosystem in Malawi to enable targeted interventions for improved information management at a later stage. The first section describes Malawi's legal framework for data governance and for opening up information. It examines Malawi'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 which information is collected, stored and disseminated. The second section, "Availability of Land Data and Information," examines the availability of land data and information provided by the Malawi government offices responsible for land administration. This overview is organised 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 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



LAND VALUE DATA

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 landuse permits; and the distribution of development costs.

CATEGORY 5:

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.

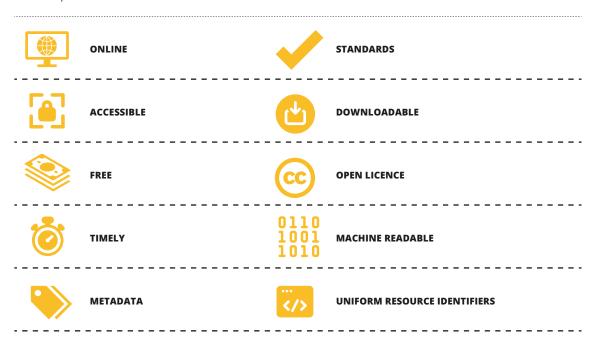
CATEGORY 6:

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.

This research does not attempt to quantify or assess the quality of the data, or determine what constitutes the "best" data. It focuses on whether the data is publicly available. Data users are best placed to determine what they are looking for in the data and how appropriate it is for their needs.

Table 2: Open Data Assessment Criteria



Methodology

This 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 prioritises 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 requires 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, standardised, and openly licensed. Inputs on this categorization and methodology are welcomed to continuously improve the assessment process.

The report prioritises 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 Malawi government is the primary custodian of 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. However, as the data landscape is not static and is constantly in flux, this document only provides a unique temporal baseline.

Unit of Analysis

The "dataset" is the primary unit of analysis. A dataset is a structured collection of information, including statistical data, bibliographic data, spatial data and multimedia contents. For example, a dataset can list property ownership and boundaries details, contain statistical information about the number of women land owners, or be a bibliographic database of publications on a certain topic of land governance. This report focuses on datasets the government produces as part of its ongoing functions and excludes project data, which entities (donor, private, NGO) might create on a specific issue but which might not be 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. 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 Malawi

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

During the colonial era, data and information was largely treated as confidential. According to Mambulasa (2016) many statutes in Malawi dating back to colonial times promote government secrecy and the withholding of public information. This has resulted in many lingering land administration and management challenges. Land-related problems have been a constant feature of Malawian society, including the pre-colonial, colonial and post independence period starting in 1964.

In Malawi, the right to access information is enshrined in the Constitution of 1994.9 Chapter IV, Section 37 of the Constitution specifies the right of access to information and states that "every person shall have the right to information held by the State or any of its organs at any level of government as far as such information is required for the exercise of his rights". The Access to Information Act 2017 places a responsibility on public authorities to make available to the public on request, any information which is under their control. The Act makes provision for the primacy of access to information as the default position stating that "the presumption that favours access to information shall be preferred to that of restricting information". Less explicitly, the National Information and Communication Policy of 2006¹⁰ recognises that the "delivery of modernised public services" requires the timely and efficient "provision of government information" to the public as well as within government departments.

The 2014 Malawi National Access to Information Policy¹¹ sets out a broad framework for access to public information for the promotion of civil, political and socio-economic rights and to increase transparency and accountability within a broader framework for growth and development. Similarly the Malawi Growth and Development Strategy (MGDS) III (Government of Malawi 2017) recognizes that an information and communication infrastructure is crucial for social and economic development. It has a strategic focus on "access to information and communication technology" but does not specifically advocate for access to data and information. The Malawi Public Service Charter¹² specifies that "clients and stakeholders have the right to access services and information" in order to ensure transparency and accountability. The Government of Malawi recognizes that an efficient and high performing public service is crucial for delivering quality services to the public and achieving national development goals and aspirations.

Access to data and information in Malawi has its origins in the International Covenant on Civil and Political Rights¹³, which Malawi ratified in 1993, states that the right to access data and information held by public bodies or authorities is a fundamental human right recognised and protected by international law (Article 19). Malawi is a also a party to the African Charter on Human and Peoples' Rights¹⁴ which protects the right to access information in Article 9.

Legal Framework on Access to Land Information

Malawi started reviewing its land related laws in 2003 in order to comply with the 1994 constitution and the Malawi National Land Policy of 2002. 15 This included standardising the parcel identification numbering and indexing systems in order to improve the accessibility of large volumes of parcel records. The Constitution, based on the principles of participatory democracy, required a review of all policies, legislation and regulations.

The Ministry of Lands adopted a Service Charter 16 to respond to the growing demand for improved service delivery and to deliver the public sector reforms to improve service, non-discrimination, participation, responsiveness, transparency and accountability. The Service Charter sets standards for providing a range of cadastral and topographic data and information services, including cadastral information, minimum time periods and geospatial information quality standards. A Special Law Commission on Land Related Laws was established to review policies and legislation to improve usability and standardise land records and improve record management. While this effort to improve land records management and introduce a Service Charter does not constitute a framework or policy for the provision of open land data, it does recognise the importance of land information management and access to information and data services for the public.

 $^{11 \}quad https://npc.mw/wp-content/uploads/2020/07/access_to_information.pdf$

¹² https://uclgafrica-alga.org/wp-content/uploads/2019/06/UNPAN039481.pdf

¹³ 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

¹⁴ https://www.achpr.org/legalinstruments/detail?id=49

¹⁵ http://www.reforms.gov.mw/psrmu/sites/default/files/National%20Land%20Policy%202002.pdf

¹⁶ https://www.malawi.gov.mw/index.php/proud/thuwala/acts/category/15-land-acts?download=51:service-charter-final

Land Tenure Data and Information

Land tenure data and information is managed by a range of laws that cover formal statutory and customary tenure systems and the transition of land between these two regimes.

The Land Survey Act No. 18 of 2016¹⁷ (Section 54) established the Malawi Geographical Information Council as an authority for licensing and registering spatial data. Its functions include establishing and enforcing national spatial standards, establishing and maintaining centralised and decentralised spatial data access points, developing and maintaining a national spatial data infrastructure, ¹⁸ entering into agreements and developing user licences for data sharing, and auditing the quality of metadata provided to major access points. The Act also makes provision for all cadastral information to become the property of the government (Section 41(1)) and reserves for the government the right to "sell the information taking into account the provisions of the copyright act" (Section 42 (5)). There is no mention of the right for the public to access cadastral information.

Data and information related to land registered for titling purposes is managed under the authority of the **Registered Land Act**¹⁹ which makes provision in Part IV Section 29(1) for any person to inspect during official working hours any register and any sheet of the registry map or any filed instrument or plan. Any person is also entitled to a certified paper copy of any register or plan. Additionally, Section 29 (3) entitles any person to an official search of the registry in which case the registrar must give the individual a certificate of official search.

Land registry data and information is managed in accordance with the **Deeds Registration**Act.²⁰ which makes provision for any person to "search the indexes and registers at the office of the Registrar and to have a certified copy of any entry" including against an "index of names". Section 34 establishes the principle that land data is a public record, but provision is made only for analogue information.

With regard to unregistered rights to land, provision has been made under the Adjudication of Title Act²¹ to adjudicate land rights in order to establish title. During the adjudication process, the Act requires that adjudication areas and interests in land rights are published as part of a public process to establish legitimate interests in the land. This approach recognises that publicity and openness of land data and information is required to fairly and equitably establish rights and interests in land.

The Customary Land Act of 2016²² introduced a number of ways in which to improve the management of customary land data and information. Land data access is decentralised through the creation of local land records for Traditional Land Management Areas (TLMA).

¹⁷ https://www.malawilii.org/akn/mw/act/1952/14/eng%402014-12-31

¹⁸ With an SDI Readiness Index of only 0.35, a lot of effort is still required for Malawi to implement a Spatial Data Infrastructure as reported by Mwange, Mulaku & Siriba (2018).

¹⁹ https://media.malawilii.org/files/legislation/akn-mw-act-1967-6-eng-2014-12-31.pdf

²⁰ https://www.malawilii.org/akn/mw/act/1916/8/eng%402014-12-31

²¹ https://www.ecolex.org/details/legislation/adjudication-of-title-act-cap-5805-lex-faoc117640/

²² http://extwprlegs1.fao.org/docs/pdf/mlw170882.pdf

Transfers of land for public interest are gazetted with information on the location, extent, boundaries, rationale for the proposed transfer and date of the transaction. Any transfer of land is published in the **Government Gazette**. ²³ The Act introduced statutory measures to address customary land conflicts which were previously handled by village headmen, but there is no mention of how information on conflicts should be managed or disclosed.

Land Use Data and Information

The **Town and Country Planning Act**²⁴ makes provision for the adhoc sharing of intragovernmental information upon request by the planning authority, and it gives the planning authority the power to publish land planning information and make it available to the public as required. While this does not obligate the publication of data and information, it does recognise that in some instances making available data and information, both within government and for the public benefit, is necessary.

The National Agriculture Policy²⁵ seeks to improve the collection and timely dissemination of agriculture price information through an automated agriculture market information system. The policy also proposes the development of a database and establishment of agri-business information centres across the country. While the National Forest Policy²⁶ does not reference access to data and information, it proposes the provision of sound technical advice based on indigenous knowledge and scientific research to all stakeholders using different information, education and communication methods. The policy also proposes the establishment of centres to disseminate up-to-date information on management methods of forestry. As of December 2022, neither of the information initiatives stipulated under these two policies has been implemented.

The first Malawi Housing Policy in 1971 identified the housing problems, challenges in overcoming these problems and possible issues related to financing of housing. Since then there has been no mention of or reference to the collection of information or data on housing. The Malawi Housing Corporation (MHC)²⁷ maintains a database of housing as part of its annual reports, but this is not an open database and the Malawi Housing Corporation Act²⁸ makes no mention of such a database. At the time of research, the MHC website provided a table on the number plots sold, number of tenants, and number of houses, but with no further explanation or metadata on what these numbers represent.

The National Decentralization Policy²⁹ seeks to promote accountability and good governance at local level. The policy stipulates a range of land management functions that are the responsibility of district councils (valuations of property, valuations of public and customary land, land development and cadastral surveys).

²³ https://www.malawilii.org/gazettes

²⁴ https://www.malawilii.org/akn/mw/act/1988/26/eng@2014-12-31#part_X_sec_71

²⁵ https://cepa.rmportal.net/Library/government-publications/national-agriculture-policy-2016/view

²⁶ https://cepa.rmportal.net/Library/government-publications/malawi-government-national-forest-policy-june-2016/view

²⁷ At the time of publication the website was down and being migrated from an old address to http://www.mhcmw.org

²⁸ https://www.malawilii.org/akn/mw/act/1963/21/eng@2014-12-31

²⁹ https://npc.mw/wp-content/uploads/2020/07/Decentralization-policy.pdf

While this implies that data and information about these functions will be generated/ needed at local level, there is no mention of or any provision in the policy relating to making information or data available.

The National Urban Policy of 2019³⁰ recognizes that there is limited access to real-time data due to weak information management systems which affect the capacity for urban planning and development. The policy recognises that effective urban governance is a prerequisite for regulated and coordinated urban growth and development. The policy objectives refer to key concepts such as "connectedness", "transparency and accountability" and "integration" which naturally speak to land governance, but could also relate to open data. However the policy makes no direct reference to information or data.

Land Development Data and Information

The Physical Planning Act of 2016³¹ governs land developments and stipulates the rules and procedures for land development. Sections 47 & 49 make provision for the development authority to seek data and information from other government departments and compel them to respond with the information within fourteen days. Section 97 of the Act provides a discretionary power to the Commissioner for Physical Planning to make information available to the public in the form of "periodicals and reports" to assist the public to "understand and comply with the purpose and practices of physical planning". This bibliographic information is made available to the public without charge.

The creation, development, maintenance and repair of streets as critical urban infrastructure is regulated by the **Urban Areas (Public and Private Streets) Act.**³² The Act requires that the public be informed (through newspapers and notices) about any developments, closures or changes to public streets. The council is also obliged to make available at its offices for inspection by the public full particulars of the proposals and the subject of such notices for a period of four weeks.

Information on land to be expropriated must be published in the Government Gazette, making it public in accordance with Section 5(1) of the Land Acquisition Act.³³ It also invites any person claiming interest in the land in question to submit particulars of the claim to the Minister within two months of the publication of the gazette. This generates publicity of the process and makes information available, but only in an ad hoc fashion in relation to an expropriation event. It does not make provision for systematic publication of expropriation information.

³⁰ https://www.finance.gov.mw/index.php/our-documents/debt-aid?download=79:2019-april-national-urban-policy-signed

³¹ http://extwprlegs1.fao.org/docs/pdf/mlw170909.pdf

³² https://www.malawilii.org/akn/mw/act/1956/13/eng@2014-12-31#part_II_sec_9

³³ https://www.ecolex.org/details/legislation/lands-acquisition-amendment-act-2017-no-9-of-2017-lex-faoc169261/?.

Land Value Data and Information

There is a legal requirement for valuations to be made public and available for members of the public to copy. The Local Government Act No. 22 of 2017³⁴ provides explicit expectations for public access to valuation information, and obligates the data custodians to ensure that the information is made available. Section 75 (2) requires that the custodian announces "in at least two newspapers circulating in the local government area" that the valuation roll is open for inspection. In addition Section 75 (3) states that any "person may, without payment, at any time during which the offices of the Council are open for business, inspect such valuation roll and copy information therefrom". While this does not refer to digital data, the intent of the Act to have this information as widely available and accessible as possible is clear. With respect to the financial records of the local authorities council, the Act also requires that financial records are made public (Section 94 (2)) and can be copied. Any person guilty of refusing or prohibiting the public from accessing the information is committing a punishable offence under Section 94 (3).

Part VII of the Act provides the legal basis for the process of property valuation and rating. Property taxes are based on the valuation of property (updated every five years) and published as the Valuation Roll. City councils carry out valuations based on market prices to assess property values for tax purposes including property taxes (e.g. city rates) and income tax on properties that are rented out. Local authorities are responsible for collecting city/town rates while the Malawi Revenue Authority is responsible for collecting income tax.

Other Land Data and Information

- Though women's land rights are an increasing area of global concern,
 Malawi has no official government data specifically regarding women and land.
- While the National Irrigation Policy 2016 (NIP)³⁵ makes provision for upgrading the existing database on irrigation development potential and requires that it is easily accessible for all stakeholders, the database could not be discovered and/or does not exist currently.
- The Mines & Minerals Policy of Malawi³⁶ states that there is inadequate geological data and information about mineral resources in Malawi. This policy supports the compilation, generation and interpretation of available geological information and data and encourages the collection and archiving of information submitted by mineral rights holders. One output of this policy is the publicly available Malawi Mining Cadastre Map Portal.³⁷.

³⁴ https://www.malawilii.org/akn/mw/act/1998/42/eng@2017-12-31

³⁵ https://cepa.org.mw/Library/government-publications/national-irrigation-policy-2016/view

³⁶ https://resourcegovernance.org/sites/default/files/Mines%20&%20Minerals%20Policy%20of%20Malawi. pdf#:~:text=ln%20April%202002%2C%20the%20Government%20of%20Malawi%2C%20through,Malawi%20 Growth%20and%20Development%20Strategy%20produced%20by%20Government

³⁷ https://portals.landfolio.com/malawi/

The National Environmental Policy of Malawi³⁸ has a specific goal (2.2.10) to develop up to date "environmental information systems to facilitate planning and decision-making at local, national and international levels". It refers in several instances to the importance of participatory processes and has a guiding principle (Section 2.3 {k}) for sharing information on the environment.

Availability of Land Data and Information

This section describes six categories of land data and information in Malawi. Modern land administration theory provides four categories, which prioritise the management of land in support of 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.

Central Government's³⁹ land data and information custodians include the Ministry of Lands, the Ministry of Local Government and the ministries responsible for agriculture and natural resources. The Malawi Spatial Data Platform (MASDAP)⁴⁰ provides access to spatial datasets across 12 thematic areas including boundaries, buildings and land cover. Local level data and information custodians include the city, municipal and district councils and the Malawi Housing Corporation (MHC). Customary land data is under the custodianship of the Traditional Land Management Area (TLMA) offices. The Malawi National Statistical Office⁴¹ has the overall responsibility for collecting, managing and disseminating official statistical data of the government. However it is not a significant source of land related data and information as defined in this research.

Parastatals such as the Malawi Housing Corporation⁴² and private entities such as Malawi Property Investment Company (MPICO),⁴³ Airport Development Limited (ADL)⁴⁴ and Knight Frank (Malawi)⁴⁵ are active players in the real estate and land information markets.

- 39 https://www.malawi.gov.mw/
- 40 https://www.masdap.mw/
- 41 http://www.nsomalawi.mw/
- 42 At the time of writing the website was down and was being migrated from the old address to http://www.mhcmw.org
- 43 https://www.mpicomw.com/about
- 44 http://www.reforms.gov.mw/psrmu/airports-development-limited
- 45 https://www.knightfrank.mw/



Category 1: Legal, Institutional and Policy Data

Legal and policy data (acts, policies, regulations, judgments) related to land governance are online and freely available. The sources of information from the government are provided through a website Malawi Laws, ⁴⁶ managed by Blackhall Publishing, a private publishing company that provides legal publishing services for the Government of Malawi. Further legal and policy information is provided through the Malawi Legal Information Institute (MalawiLII)⁴⁷ hosted by a Malawian non-governmental organisation in partnership with the African Legal Institute. It offers a searchable text function and the information is freely available and downloadable. Other research and land related information is hosted by the government on an open access platform, the Malawi National Digital Repository. ⁴⁸ The official website of the Government of Malawi⁴⁹ and the National Planning Commission ⁵⁰ also offer bibliographic information resources including policies, acts and laws, reports and tenders.

There are gaps in the data and information, and government website links do not always work. The MalawiLII database is missing some legislation and is not completely up to date.

Primarily the data is available in proprietary formats such as Adobe PDF and MS Word formats. The MalawiLi database 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

Central government agencies (Ministry of Lands, Ministry of Local Government), local government agencies (city, municipal and local councils) and customary land authorities are the main custodians of land tenure data and information.

Figure 1: Information System at the Ministry of Lands, Source: Chikhwenda (2019)





- 46 https://malawilaws.com/
- 47 https://www.malawilii.org/
- 48 http://www.ndr.mw:8080/xmlui/handle/123456789/1
- 49 https://www.malawi.gov.mw/index.php/proud/thuwala/acts
- 50 https://npc.mw/

Land ownership data, including title deeds and the deeds registry, are not available digitally in Malawi. Analogue data and information is available to the public at the Ministry of Lands but only upon payment of a fee. Cadastral data and survey information (field books, survey computation sheets, the official sketch plans, original working plans, original deed plans) are available for inspection but it is challenging to access these analogue records given their condition. As different departments use differing key indices, there is no ability to link different data sources.

The Malawi Housing Corporation (MHC), the custodian for tenure data on public land transactions, has a digital database but information is only made available in an analogue format. The data on public land transactions is available to the public upon request, free of charge after a 24-48 hour period. The digital property management system is only available for internal use within the organisation.

The Government of Malawi plans to launch the **Land Information Management System (LIMS)** in 2023.⁵¹,⁵²,⁵³ The project seeks to transform and migrate existing digital cadastral records into the LIMS database and convert land-related paper records and cadastral maps to establish comprehensive digital land records. The project will focus on the automation of the main land administration services carried out by the Ministry of Lands. This is a World Bank funded project whose main objective is to implement a modern land information management system using Trimble's proprietary Landfolio software.

Data and information on administrative boundaries are available on the Malawi Spatial Data Platform (MASDAP)⁵⁴ under the custodianship of the Ministry of Lands, in collaboration with the National Statistics Office and other ministries. It requires user registration, without which the boundary data may only be viewed.

The **major challenges** are the limited availability of digital land tenure information in digital format and the poor state of the manual and paper records. There are some restrictions on analogue data and information that can be released to the public. At the Ministry of Lands, official requests for information must be paid for. It must be acknowledged that the process of acquisition, storage, retrieval, analysis and maintenance of data and information is expensive. The number of property transactions in a month is also not tracked or published and would constitute very valuable information on the functioning of the land market.

The **types of data and information** held by the Ministry of Lands (but not publicly available) include cadastral datasets, field books and computations, survey reports, working plans, deed plans, general plans, registration diagrams, maps sheets at a scale of 1:50,000 for the whole country, and map sheets at a scale 1:2,500 for urban centres. The map sheets at the Surveys Department are both in cadastral and topographic formats. Other information that is accessible but not publicly available at the Surveys Department includes ward boundaries, constituency boundaries, traditional area boundaries, traditional land management areas, boundaries for individual plots, block of plots, subdivisions and amalgamations, National Triangulation stations, easements, protected areas, forestry reserves, geographic names, and gazetted reserves for roads, railways, power lines and waterways.

⁵¹ https://africabrief.substack.com/p/land-information-management-system

⁵² https://times.mw/new-system-to-improve-land-services-minister/

 $^{53 \}quad https://themalawiexclusive.com/government-to-launch-land-information-management-system/$

⁵⁴ http://www.masdap.mw/

Information held by the deed registry includes deeds, conveyances, wills and instruments, charges upon land, interest in land, mortgages, certificate of registration, grant of letters of administration, certificate of title, mining prospecting rights, and fees for deeds registry processes. In the land registry, analogue data for freehold as well as leasehold land is also accessible. The **Customary Land Act of 2016**,55 allows data on customary estates to be accessed at the district land registry. The data and information include the registered number of customary estates in a Traditional Land Management Area, registered number of land disputes, number of appeals, witness and summons and fees and fines.

Land tenure data and information is timeously being updated as new transactions are registered. However, making the data accessible to the public is delayed. This is especially true for cadastral parcel data where the updating of the map sheets is only done at the Department of Surveys Headquarters in Lilongwe. The implication is that surveyors from regional offices may not have updated map sheets. Similarly, data and information from the deed's registry can only be accessed in Lilongwe since there are no deeds registries in the districts.



Category 3: Land Use Data

The primary sources of land use data and information are the Department of Physical Planning in the Ministry of Lands⁵⁶ and the city and district councils across the country. City councils, including in the capital city Lilongwe,⁵⁷ are the local data custodians but only publish land use information as paper maps. Sometimes the plans are available for download in PDF format, such as the 2010 Urban Development Master Plan for Lilongwe City Council.⁵⁸ The central government prepares and maintains National Development Plans while the city councils prepare land use data. In most of the city councils, the section of Town Planning oversees preparation of land use plans. Currently the land use maps are not online. The Physical Planning Act of 2016⁵⁹ mandates district councils to develop district development plans and local development plans, but none of the district councils had a website or provided any online land use information.

Spatial data on a variety of environmental, water, forestry, climate, agriculture, disaster risk and related datasets at varying scales (including administrative boundary data) are available on the Malawi Spatial Data Platform (MASDAP)⁶⁰ under the custodianship of the Ministry of Lands, in collaboration with the National Statistics Office and other ministries. MASDAP is a free open source web-based data sharing and downloading tool. After registration and approval by the administrators users are able to upload, manage and browse spatial data, explore, compose and share maps, search and download relevant documents. Different levels of access is provided to registered users (viewing, editing, uploading) based on the nature of their work and needs.

- 55 http://extwprlegs1.fao.org/docs/pdf/mlw170882.pdf
- Note: The Official Government of Malawi website lists all the Ministries, including the Ministry of Lands, but the website links are not active and there appears to be no active website for the Ministry of Lands. The Ministry does have a facebook page where it provides general information to the public on its activities.
- 57 https://lcc.mw/
- 58 https://openjicareport.jica.go.jp/pdf/12003778_01.pdf
- 59 http://extwprlegs1.fao.org/docs/pdf/mlw170909.pdf
- 60 http://www.masdap.mw/

The Ministry Of Agriculture⁶¹ is a major custodian of land use data at the national level but currently does not provide any spatial or land use data on its website. Some information and data can be extracted from reports and projects activities, such as contained in the Lifidzi Irrigation Scheme Report.⁶² Similar reports on activities and projects related to land use are available for download⁶³ (27 reports in total). The Land Cover Atlas Malawi⁶⁴ offers data and information resources for download as PDFs. These resources do not amount to a consistent and reliable source of information on land use.

The MASDAP portal does have 21 land cover information resources available for viewing and download as an image file as well as a geopackage⁶⁵. However, as most of the city councils in Malawi do not have digital land use plans, there is a significant gap in the availability of land use information. No information is available about enforcement of restrictions and adherence to regulations. The Ministry of Agriculture does not make land use data available consistently, and the Ministry of Natural Resources does not have a website.



Category 4: Land Development Data

Land development data – development layouts as well as national, district and local development plans – is the responsibility of the Department of Physical Planning in the Ministry of Lands. It holds information on a range of development functions, including data and information on development applications and approvals, purchase notices, enforcement notices, notices of appeal against development permission, and notices of appeal against enforcement notices.

The 38 local authorities at various district/town/municipal/city council levels are mandated to prepare district and local physical development plans subject to the approval of the central government. Prior to the enactment of the Physical Planning Act of 2016, only the local authorities of Blantyre, Lilongwe, Mzuzu and Zomba city councils, had delegated powers to prepare local physical development plans. The Physical Planning Act of 2016 now requires all local government councils to develop physical development plans. Land development data is usually accessed in the city, town, municipality, and district councils. The implementation of the Customary Land Act of 2016 ensures that land development data and information (including data on conflicts)) should be available in Traditional Land Management Areas (TLMA) offices.

As none of the above mentioned information is available digitally, there is a significant gap in the availability of land development data and information. Some data and information in customary areas is not captured and might be completely undocumented. This is especially the case for information on conflicts which is managed at the level of the village Chief, where such proceedings are based on an oral tradition and locally recognized but remain undocumented. Proceedings that escalate to the level of the courts can become part of the public record, but this represents only a fraction of the conflicts.

- 61 http://www.agriculture.gov.mw/index.php
- 62 http://www.agriculture.gov.mw/index.php/downloads/category/3-report
- 63 http://www.agriculture.gov.mw/index.php/downloads
- 64 https://www.fao.org/documents/card/en/c/830c7eef-560f-47c9-b8d2-51e4f80dc904/
- 65 GeoPackage is an open, standards-based, platform-independent, portable, self-describing, compact format for transferring geospatial information. Retrieved in December 2022 from https://www.geopackage.org/

The physical development plans are usually updated every five years or when the need arises. The data and information for land disputes are supposed to be updated regularly when such disputes exist.



Category 5: Land Value Data

The Local Government Act of 2017⁶⁶ provides legal authority for both fiscal decentralisation and property taxation. Data on property taxation has been decentralised. Major valuation data and information custodians include local government authorities, the Ministry of Local Government,⁶⁷ the National Local Government Finance Committee,⁶⁸ Malawi Local Government Association,⁶⁹ and the Ministry of Finance, Economic Planning and Development.⁷⁰ Property taxes are assessed based on valuation of property updated every five years through the Quinquennial Valuation Roll (QVR) and annually through the Supplementary Valuation Roll (SVR). In three cities – Blantyre, Lilongwe and Mzuzu – local authorities are responsible for collecting property rates, ground rent, fees, and service charges. The Malawi Revenue Authority (MRA)⁷¹ is responsible for collecting income tax and publishes information about the procedures for collection of revenue but not on the actual revenue collected. In Malawi, market value data is also accessible through private property companies such as Press Property LTD, Malawi Property Investment Company (MPICO), Airport Development Limited (ADL), etc.

Typical types of data and information include property taxes, user fees, development impact charges and scrutiny fees on all property owners who directly or indirectly benefit from public services. These are betterment taxes, levies for infrastructure, and property tax as well as applicable exemptions. The valuation roll is printed and hard copies are available for inspection, but access is limited. With the development of a digital valuation roll, public access has increased, but only for Blantyre City Council⁷² which has the only current, online and freely available digital valuation roll.⁷³ The valuation roll can be downloaded as a series of PDF files from the city website. The valuation data for Blantyre is updated and timely and is current for 2021. In terms of the valuation process this is up to date as the Local Government (Amendment) Act of 2016 provides a five-year cycle for undertaking valuation of assessable property. The budget information as well as the city charges that were found online were all up to date. The valuation roles for Lilongwe City and Mzuzu city are in digital format but are not available online. Some local authorities such as the Lilongwe City Council⁷⁴ provide information on rates, taxes and other charges⁷⁵ information on their websites. Data and information of fees, levies and budgets are not uniformly available across all jurisdictions. In many cases the

- 66 https://www.ecolex.org/details/legislation/lands-acquisition-amendment-act-2017-no-9-of-2017-lex-faoc169261/?.
- 67 The Ministry of Local Government has a facebook page but neither the website listed on the facebook page or on the Official Government of Malawi homepage are available online.
 - Ministry of Local Government Facebook Page: https://www.facebook.com/profile.php?id=100068943108281)
- 68 https://www.nlgfc.gov.mw/
- 69 Website address (http://www.malgamw.org/) not active but the Facebook page is available at https://www.facebook.com/Malawi-Local-Government-Association-MALGA-735544396802531/
- 70 http://www.finance.gov.mw/
- 71 https://www.mra.mw/
- 72 https://bccmw.com/
- 73 https://bccmw.com/document-category/qvr-data/
- 74 https://lcc.mw/
- 75 https://lcc.mw/city-charges/

criteria for designating and levying property tax in urban areas are not clearly defined, and rates, taxes and charges are not publicly stated. The Ministry of Finance publishes budget information on expenditure and income⁷⁶ as downloadable PDFs but has limited information on land governance related expenditure and income which is not in searchable databases.

Category 6: Other Land Data

Several other custodians contribute statistical data related to land.

- The Malawi National Statistical Office⁷⁷ which publishes an extensive range of national data and statistical information, although "land" is not one of its key data categories. The Statistical Office also supports the Malawi Data Portal⁷⁸ which provides a range of visualisations for national statistical data sets but not for land, and provides access to other global datasets provided by international organisations such as the UN and FAO. The Statistical Office maintains the Malawi National Data Archive (MNADA)⁷⁹ as a web-based storage house where raw statistical data at household level from various surveys is documented.
- The Malawi Mining Cadastre Map Portal⁸⁰ is Malawi's freely accessible online portal displaying licencing information for mining, exploration and reconnaissance. Data on this platform include exclusive prospecting and reconnaissance licences, the area of the licence, commodity types and whether the licences are active or not. The information also shows where new applications have been received.
- The Malawi Electoral Commission⁸¹ is empowered by the Malawi Constitution to demarcate boundaries of constituencies and wards for electoral purposes.
 The maps are available online⁸² and are freely downloadable but only as image files with no accompanying metadata.
- The Business Registration Authority⁸³ provides important information on business registration and related information but not on existing businesses. There is also work ongoing to develop an "inclusive information and communications technology-based value chain governance geospatial platform", but other than the reporting on the platform the links to the online platform could not be established.⁸⁴
- A Land Cover Change Database of Malawi, produced under the auspices of the Malawi Climate Change Monitoring National Programme, could not be located online. A digital copy of the Land Cover Change Atlas⁸⁵ is available online.

⁷⁶ http://www.finance.gov.mw/index.php/our-documents/budget-statements

⁷⁷ http://www.nsomalawi.mw/

⁷⁸ https://malawi.opendataforafrica.org/

⁷⁹ http://www.nada.nsomalawi.mw/

⁸⁰ https://portals.landfolio.com/malawi/

⁸¹ https://mec.org.mw

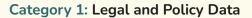
⁸² https://mec.org.mw/maps/

⁸³ https://www.registrargeneral.gov.mw/services/registration-of-businesses.html

⁸⁴ https://www.geospatialworld.net/prime/case-study/agritech/sustainable-transformation-through-ict-based-agricultural-value-chain-governance-platform-in-malawi/

⁸⁵ https://www.fao.org/3/be893e/be893e.pdf

How Open is Land Data and Information in Malawi?





Category 2: Land Tenure Data



Category 3: Land Use Data



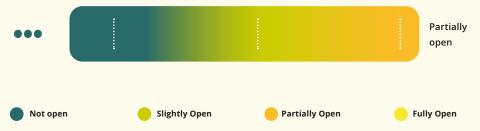
Category 4: Land Development Data



Category 5: Land Value Data



Category 6: Other Land Data



Open Data Compliance Assessment in Malawi

This chapter assesses the legal policy framework, land tenure, land use, land development, land value and other land data types described in the previous chapter against ten open data criteria drawn from the methodologies used by the Open Data Index⁸⁶ and the Open Data Barometer.⁸⁷ This approach has enabled more detailed results than reported in the 2016 Open Data Barometer⁸⁸ and the 2016/2017 Global Open Data Index which only considered land ownership data.

In line with the 2019 State of Open Data report (Davies, Walker, Rubinstein & Perini 2019) this assessment focuses primarily but not exclusively on digital government data which is open. This covers land governance data traditionally created or used during the business of governing; created or published at the request of governments; and collected by international organisations, civil society organisations, private enterprises and individuals. Digital data held in offline information systems is also acknowledged.

⁸⁷ Open Data Barometer Methodology. 4th ed. 2016.

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.				
Ö	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)				
4	Downloadable	The data can be downloaded in bulk in open formats.				
(3)	Open licence	The data is licensed for legal reuse by anyone, using, for example, a Creative Commons Attribution by 4.0 International licence.				
0110 1001 1010	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					

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.

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STATE OF LAND INFORMATION IN MALAWI OPEN DATA ASSESSMENT

While a score is provided as part of the assessment, it is important to reflect that the focus of this report is not on the data score or data being "open" as an outcome. Rather, opening up data is a process, and any assessment of openness should be seen as a continuum. The formal features of an open data assessment are important, but not for their own sake. The main purpose of the assessment of "openness" is to provide a baseline for understanding the current state of data and to support usability of data for data-dependent services and public interest.

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

















0110 1001 1010



	Online	Accessible	Free	Timely	Metadata	Standards	Downloadable	Open licence	Machine readable	Linked Data (URIs)	TOTAL
Legal	Partially Online	Partially Accessible	Partially Free	Partially Timely	Full Use of Metadata	Partial Use of Standards	Fully Downloadable	Partial Use of Open Licences	Partially Machine Readable	No Linked Data	Partially Open
Land Tenure	Slightly Online	Slightly Accessible	Not Applicable	Not Timely	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No Linked Data	Not Open
Land Use	Slightly Online	Slightly Accessible	Partially Free	Very Timely	Partial Use of Metadata	Standards Used	Partially Downloadable	Full Use of Open Licences	Partially Machine Readable	No Linked Data	Partially Open
Land Devpt	Not Online	Not Accessible	Not Applicable	Not Timely	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No Linked Data	Not Open
Land Value	Slightly Online	Slightly Accessible	Slightly Free	Slightly Timely	No Use of Metadata	No Use of Standards	Slightly Downloadable	No Use of Open Licences	Not Machine Readable	No Linked Data	Not Open
Other Land Data	Fully Online	Fully Accessible	Fully Free	Very Timely	Partial Use of Metadata	Standards Used	Partially Downloadable	Partial Use of Open Licences	Partially Machine Readable	No Linked Data	Partially Open
OVERALL	Slightly Online	Slightly Accessible	Partially Free	Partially Timely	Partial Use of Metadata	Partial Use of Standards	Partially Downloadable	Partial Use of Open Licence	Partially Machine Readable	No Linked Data	Slightly 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, reused, and redistributed by anyone, anytime, anywhere".89 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 organisations.

This criterion focuses on land governance datasets that are available online, including via tools for mobile and offline use. It also takes into account datasets that are digital and used online within government and other organisations, 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.

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



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

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework	Partially Online	Much of Malawi's legislation, including Malawi's Constitution, is available online. Four databases offer online Malawi legislation: MalawiLII, Blackhall's Laws of Malawi, FAOLex and Ecolex. However, land-related legislation is only partially online: MalawiLII's database seems incomplete (for example, it lists the Land Act 1965, and the Customary Land (Development) Act 1967, but not the current Land Act 2016 and the current Customary Land Act 2016). The FAO's Ecolex website links mostly to Blackhall's Laws of Malawi which requires a subscription to gain online access to the legislation. The 2002 Malawi National Land Policy, the 2014 National Access to Information Policy, the 2019 National Urban Policy, the 2016 National Agriculture Policy, the 2016 National Forest Policy, the 2016 National Irrigation Policy and the 2013 Mines and Minerals Policy of Malawi are all online and readable in PDF format. The National Housing Policy is offline. The Malawi National Digital Repository is an open access e-repository platform of Malawian research and other relevant work.
Land Tenure Data	Slightly Online	Malawi's land tenure datasets, generated by the Ministry of Lands (MOL), in accordance with the Land Act of 2016, Land Survey Act of 2016, the Physical Planning Act of 2016, the Registered Land (Amendment) Act of 2016, the Customary Land Act of 2016 and the subsidiary legislations, are not available online. The project by MOL to implement a Land Information Management System (LIMS) will create digital data and digitise land-related paper records and cadastral maps with API functionality. This three-year project is expected to roll out by January 31 2023 ⁹⁰ and records digitised to date are available in-house. MOL's geospatial freehold, leasehold, and customary estate data are digital but offline. The Malawi Housing Corporation's digital property rights database is only accessible to employees in the Estates Department. Online minerals data is available on the Malawi Mining Cadastre Portal. The Slum Dwellers International (SDI) network of community-based organisations of the urban poor in 32 countries and hundreds of cities and towns across Africa, Asia and Latin America provides visualised but not downloadable data of cities and settlements in Malawi.
Land Use Data and Information	Slightly Online	While up-to-date land use maps are not online, the government's Malawi Spatial Data Platform, a free, open source, web-based data sharing tool, offers environment, water, forestry, climate, agriculture, and disaster risk related datasets at varying scales. Users can upload, manage and browse spatial data, explore, compose and share maps, search and download relevant documents. The African Development Bank's Malawi Data Portal offers land use visualisations, but users must register to access the data. LandMatrix, an open access digital platform provides details (data, infographics, charts, maps, and other material) of land deals in about 100 countries, including Malawi. As of July 2021, only three land investments had been captured in the database for Malawi since 2012. ⁹¹ The International Soil Reference and Information Centre (ISRIC) Datahub includes the 2006 Soil and Terrain Database (SOTER) for Malawi, which is licenced for non-commercial use and can be downloaded. Malawian data produced as part of the World Bank's Satellite Monitoring Service of Urbanization in Africa project, in partnership with the German Aerospace Center (DLR), is available online.
Land Development Data and Information	Not Online	The Ministry of Lands' Department of Physical Planning and Local Councils' land development data are offline. There is no Malawi data in the African Development Bank (AfDB)'s Statistical Data Portal.
Land Value Data	Slightly Online	MOL's and key cities' valuation data is offline. Private sites, for example, Numbeo and Malawi Property Investment and Press Properties Ltd, offer property valuation data for clients. The Blantyre CC has valuation data online and some rates, taxes and budget data are online.
Other Land Data	Fully Online	The Malawi Data Dissemination Platform and the Malawi Data Portal of the National Statistical Office, the Africa Portal and the Regional Centre for Mapping of Resources for Development RCMD) Geoportal all offer general online digital datasets or documents which are related to land governance. The FAO Gender and Land Rights Database links to digital legislation but is out of date. The Malawi Electoral Commission offers digital maps of electoral boundaries. The Climate Change Knowledge Portal provides online historical and projected climate data.
		Overall Score: Slightly Online

 $^{90 \}quad https://times.mw/new-system-to-improve-land-services-minister/?amp=1$

⁹¹ https://landmatrix.org/resources/tracking-down-elusive-data-land-deals-malawi/



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 public awareness of open data, promote data literacy, build capacity for effective use of open data, and ensure that citizen, community, and civil society and private sector representatives have the tools and resources they need to effectively understand and use public resources.92

Is Malawi's land data and information is accessible?



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

CATEGORY	SCORE	NOTES	
Legal, Policy and Institutional Framework	tional Accessible Accessible		
Land Tenure Data	Slightly Accessible	There is no online government data. The private Malawi Mining Cadastre Portal only provides up-to-date visualisations.	
Land Use Data and Information	Slightly Accessible	Government land use maps are not accessible. The International Soil Reference and Information Centre (ISRIC) Datahub's Soil and Terrain Database (SOTER) for Malawi is available as a visualisation and can be downloaded. Registration is required for uploading data from the Malawi Data Portal and the Malawi Spatial Data Platform. The Land Matrix is an open access platform.	
Land Development Data and Information	Not Accessible	The Ministry of Lands' Department of Physical Planning and Local Councils' land development data is offline.	
Land Value Data	Slightly Accessible	The Blantyre CC has valuation data online and some rates, taxes and budget data is online.	
Other Land Data	Fully Accessible	The Malawi Data Dissemination Platform and the Malawi Data Portal of the National Statistical Office, the Africa Portal, the Electoral Commission and the Regional Centre for Mapping of Resources for Development (Kenya) Geoportal all offer accessible online digital datasets or documents related to land governance.	
Overall Score: Slightly Accessible			



Criteria 3: Free

This criterion assesses whether the online land data is released free of charge. 93 It excludes bibliographic data such as online articles. Land tenure and land development data are excluded as they are not online.

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



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

CATEGORY	SCORE	NOTES		
Legal, Policy and Institutional Framework	Partially Free	MalawiLII, FAOLEX and Ecolex are free. Blackhall's Laws of Malawi requires a subscription.		
Land Tenure Data	Not There is no online government land tenure data. Applicable			
Land Use Data and Information	Partially Free	Government's digital land use maps are not online. Digital data on the Malawi Data Portal, the Malawi Spatial Data Platform, Land Matrix and ISRIC's Data Hub are free.		
Land Development Data and Information	Not Applicable	The Ministry of Lands' Department of Physical Planning and Local Councils' land development data is offline.		
Land Value Data	Slightly Free	There is no online valuation data other than the Blantyre City Council.		
Other Land Data	Free	Data on the Malawi Data Dissemination Platform and the Malawi Data Portal of the National Statistical Office, the Africa Portal and the Regional Centre for Mapping of Resources for Development (Kenya) Geoportal, and the Electoral maps are free. The Malawi Mining Cadastre Portal's up-to-date visualisations 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 prioritisation informed by consultations with open data users, including citizens, other governments, and civil society and private sector organisations. Timely data is released in its original, unmodified form, and linked to any relevant guidance, documentation, visualisations 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.94

How timely is Malawi's land related data updated?



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

CATECORY	CCORT	NOTES
CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework	Partially Timely	The legal databases are updated regularly, although MalawiLII does not offer all land-related legislation.
Land Tenure Data	Not Timely	There is no online government data.
Land Use Data and Information	Timely	The available digital land use reports are updated regularly.
Land Development Data and Information	Not Timely	The Ministry of Lands' Department of Physical Planning and Local Councils' land development data is offline.
Land Value Data	Slightly Timely	The Blantyre City Council is up to date.
Other Land Data	Timely	The online digital databases are updated regularly (Malawi Data Dissemination Platform, Malawi Data Portal of the National Statistical Office). The Malawi Mining Cadastre Portal's up-to-date visualisations seem timely.
		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.⁹⁵

Metadata is the data providing information about one or more aspects of data within a dataset. It is used to summarise 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). ⁹⁶ Land tenure and land development data are excluded as they are not online.

Is Malawi's land related data accompanied by metadata?



Table 10: How much of Malawi's land data and information is accompanied by metadata?

CATEGORY	SCORE	NOTES		
Legal, Policy and Institutional Framework	Fully accompanied by metadata			
Land Tenure Data	Not applicable	The government digital databases are offline.		
Land Use Data and Information	Partially accompanied by metadata	The Malawi Spatial Data Platform, Land Matrix and ISRIC's Data Hub provide metadata.		
Land Development Data and Information	Not applicable	The Ministry of Lands' Department of Physical Planning and Local Councils' land development data is offline.		
Land Value Data	Not accompanied by metadata	The Blantyre valuation data is not accompanied by metadata and there is no other valuation data. The budget and finance information does not have metadata.		
Other Land Data	Partially accompanied by metadata	The Malawi Mining Cadastre Portal provides no metadata but the other other online digital databases provide metadata.		
Overall Score: Partial Use of Metadata				

⁹⁵ https://opendatacharter.net/principles/

⁹⁶ https://drive.google.com/file/d/1ruIYMNsHLAvfv9gOlmLDMhEWI_pM_dmL/view



Criteria 6: Standards

This criterion assesses whether the organisation releasing the land data implements consistent, open standards covering data formats, interoperability, structure, and common identifiers when collecting and publishing data. It also considers whether the organisation 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.97 Land tenure and land development data are excluded as they are not online.

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



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

CATEGORY	SCORE	NOTES	
Legal, Policy and Institutional Framework	Partial Use of Standards	MalawiLII information is in HTML (non-proprietary) or proprietary Adobe Acrobat PDF. FAOLex and Ecolex offer PDF formats. PDF formats are partially interoperable. Unknown for Blackhall's Laws of Malawi due to it requiring a subscription.	
Land Tenure Data	Not Applicable	The digital databases are offline. There is no online government data.	
Land Use Data and Information	Standards Used	While government data is offline, the online digital databases meet open standards.	
Land Development Data and Information	Not Applicable	The Ministry of Lands' Department of Physical Planning and Local Councils' land development data is offline.	
Land Value Data	No Use of Standards	The very little valuation data available online does not meet open standards.	
Other Land Data	Standards Used	The online digital databases meet open standards.	
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 cited in the Data Matrix. Land tenure and land development data are excluded as they are not online.

How much of Malawi's land related data is downloadable?



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

CATEGORY	SCORE	NOTES	
Legal, Policy and Institutional Framework	Downloadable	The Html and PDF formats are downloadable	
Land Tenure Data	Not Applicable	The datasets are offline	
Land Use Data and Information	Partially Downloadable	After registration, users can download data from the Malawi Spatial Data Platform and the Land Cover Atlas Malawi	
Land Development Data and Information	Not Applicable	The Ministry of Lands' Department of Physical Planning and Local Councils' land development data is offline.	
Land Value Data	Slightly Downloadable	Only one local authority valuation is downloadable, but not in bulk formats.	
Other Land Data	Partially Downloadable	Some of 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 licence that ensures that data users can easily find and understand the conditions of their data access and reuse. 98 The most open licence most used by governments is the Creative Commons Attribution CC-BY International 4.0 Licence which allows users to copy and redistribute the information provided they attribute the copyright owner. 99 Land tenure and land development data are excluded as they are not online.

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



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

CATEGORY	SCORE	NOTES		
Legal, Policy and Institutional Framework	Partially Openly Licensed	Malawi LII is freely available but copyright restricted. Blackhall's Laws of Malawi is a restricted subscription service. Ecolex grants users an open licence to use, download, remix and print the materials contained in ECOLEX solely for non-commercial purposes. Copying, browsing, redistribution, publication, or commercial exploitation of any material contained on or otherwise made available on ECOLEX is strictly prohibited. The FAOLEX licence could not be checked.		
Land Tenure Data	Not Applicable	As this data is not online or downloadable, a licence is not applicable.		
Land Use Data and Information	Openly Licensed	The land use data on the Malawi Data Portal, the Malawi Spatial Data Platform, Land Matrix and ISRIC's Data Hub has open licences.		
Land Development Data and Information	Not Applicable	The Ministry of Lands' Department of Physical Planning and Local Councils' land development data is offline.		
Land Value Data	Not Openly Licensed	There is very little online data and the valuation information that is online has no licensing information.		
Other Land Data	Partially Openly Licensed	Some of the data portals offer open licences.		
Overall Score: Partially Openly Licensed				

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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." This is needed by analysts downloading data in bulk for example, for policy development, analysis or visualisation on their computers or for remixing with other data to create new applications and products. Land tenure and land development data are excluded as they are not online.

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

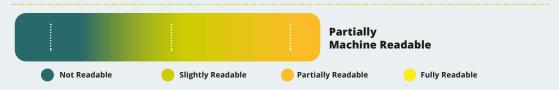


Table 14: How much of Malawi's land data and information is machine readable?

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework	Partially Machine- readable	MalawiLII has machine-readable html and PDF (not easily readable) formats. FAOLex and Ecolex link to PDF formats.
Land Tenure Data	Not Machine- readable	This offline data is not machine-readable.
Land Use Data and Information	Partially Machine- readable	While government data is offline. Malawi Data Portal, the Malawi Spatial Data Platform, Land Matrix and ISRIC's Data Hub is machine-readable.
Land Development Data and Information	Not Machine- readable	The Ministry of Lands' Department of Physical Planning and Local Councils' land development data is offline and not available in machine readable formats.
Land Value Data	Not Machine- readable	There is no central data repository on valuation records and the Blantyre City Council valuation data is not machine readable.
Other Land Data	Partially Machine- readable	Some of the data portals offer open machine- readable formats.
Overall Score: Partially Machine Readable		



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

This criterion assesses whether land governance data is made available as Linked Data. Linked Data 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". 101

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



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

CATEGORY	SCORE	NOTES
Legal, Policy and Institutional Framework	No Use of URIs	There is no use of URIs or reference to linked data.
Land Tenure Data	No Use of URIs	There is no use of URIs or reference to linked data.
Land Use Data and Information	No Use of URIs	There is no use of URIs or reference to linked data.
Land Development Data and Information	No Use of URIs	There is no use of URIs or reference to linked data.
Land Value Data	No Use of URIs	There is no use of URIs or reference to linked data.
Other Land Data	No Use of URIs	There is no use of URIs or reference to linked data.
	Overall Score: No Use of URIs	

Conclusions

With the adoption of a new constitution in 1994, Malawi abandoned its historical pattern of censorship and lack of access to information. Political democracy and the alignment with international human and civil rights declarations have ushered in a new phase of openness and transparency, making progress to develop stronger legal frameworks in support of access to information, and ratifying international instruments that guarantee access to information, as fundamental rights.

Land Data and Information is Slightly Open

This report concludes that land data and information in Malawi is only **slightly open**, with most of its land data offline and inaccessible. This contrasts with the call for open information contained in the Malawi Constitution and the Access to Information Act. This report's results are a slight improvement upon the 2022 findings by the Global Data Barometer (GDB), which scored Malawi 0 out of a 100 for the openness of its land data and whose scope was narrower than covered by this assessment.

Legal and policy data and information in Malawi was found to be **partially open**, with the databases only being partially accessible or not up to date. Land use data was found to be **partially open**, but, with no use of metadata and little data being online and freely accessible, more work is needed to improve availability. Other land data such as agricultural data and mining data is considered to be **partially open** but with improvements needed to allow for bulk downloads, open licences and improved use of machine readable formats. Land tenure data, land development data and land value data are not open in Malawi.

Strong Legal and Policy Framework for Open Data

The right of access to information in Malawi's constitution, its key policies, public service charters and 2017 Access to Information law provide a sound foundation for opening up land governance information. Malawi is a signatory to the International Covenant on Civil and Political Rights and the African Charter on Human and Peoples' Rights which guarantee access to information as a legal principle in Malawi.

Analogue Framework for Land Data and Information

The numerous land related policies and frameworks, designed to improve information access, have not resulted in open land governance information. Currently most of the data is offline and only accessed physically in the respective government departments.

Increasingly government departments are attempting to make information available online through their websites and dedicated information portals. The best examples are MalawiLII, Malawi Laws and the Malawi National Digital Repository (focussed on bibliographic resources) but more effort is required for these repositories to be considered fully open. The Malawi Data Portal offers statistical data and visualisation but has no "land" data topic or resources. The Malawi Spatial Data Portal contains land cover data and land use data but no tenure data and is not fully open.

Online Land Information Systems

Data and information on land tenure, land value and land development is mostly offline and can only be accessed by visiting central and local government offices. The Ministry of Lands is implementing a Land Information Management System (LIMS) which aims to transform and migrate existing digital records, convert land-related paper records and cadastral maps to data and establish comprehensive digital land records by 2023.

Progress on Open Data

The slow transition from analog to digital land data has limited Malawi's progress towards adopting and enshrining access to information as a fundamental constitutional right and a priority for service delivery. Information infrastructure challenges and limited internet penetration are additional challenges for achieving digital and online services.

Foundational progress has been made with the development of a legal framework for access to data, the partial provision of legal and policy data and information, and the development of open data platforms for statistical and spatial data. There are significant opportunities for improvement in the provision of online open land governance data.

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Recommendations

In an increasingly knowledge and data driven society (and economy), unlocking the value of open land data is critical. In line with Malawi's progress over the last two and a half decades towards democratisation, transparency and good governance, the next step is public access to data that is interoperable, online, accessible, free, timely, downloadable, machine-readable, meets standards and is described by metadata.

The following recommendations aim to continue to improve citizen engagement and to use open land data to create an enabling environment for land governance and innovation. While they are directly linked to current land data initiatives in Malawi, they may also be applied in the broader context of any new initiative to publish open data in Malawi.

Make Data Portal and Websites More "Open"

While admirable progress has been made in publishing bibliographic, statistical and spatial data in Malawi to increase availability, these information sources can be improved and made more open.

- Make the three primary bibliographic portals (MALAWILII, Malawi Laws and Malawi National Digital Repository) more equitable. Consider removing login and other access barriers on these websites, ensuring that the legal information is updated, amendments to acts and regulations are included and that the databases are made searchable and downloadable in machine readable formats. Improving the openness of the bibliographic resources is achievable without requiring significant additional resources. The result would be a priority category of land data becoming openly available for use and reuse by the public. It could change the openness of legal data from partially open to fully open.
- Improve the value and functionality of the two key government data portals for statistical data (Malawi Data Portal) and spatial data (MASDAP). Provide better metadata and remove any access and login barriers for accessing data. Where practicable, add land tenure, land value and land development data to MASDAP.

Carry out Legal and Policy Reforms

Malawi has already adopted foundational protections which recognise the right to access information and taken steps to operationalise this across the functions of government. However much of the land related legislation reviewed in this report do not contain any clauses on access to information in a digital environment as contemplated in the understanding of truly open data.

- Review current land policies, laws and other legal instruments to include access to information in "digital formats". This would significantly enhance and clarify land information protections.
- The research concluded that Malawi makes only slight use of open licences. Adopt or develop a framework or guidelines for the legal use of open data licences to enable the legal use and reuse of land data and information within a clear regulatory framework. Discussions and initiatives could draw on the existing data sharing and release information on the government data platforms as well as consider the free open licences such as the Creative Commons Suite of International Licences¹⁰² which have been recommended for government use by, for example, New Zealand¹⁰³ and Australia.¹⁰⁴ An alternative would be to develop its own Open Government Licence, but this approach has long-term update cost and resourcing implications.

Move towards Open Land Tenure Data

It is an opportune time to bring stakeholders together to develop strategies and consider **international examples**¹⁰⁵ for including open land tenure data as part of the Land Information Management System in support of broader government information release. Opening up access to land tenure data will help to overcome geographic challenges such as land registration information that is only accessible locally and offline.

Publish Open Land Value Data

Land value data is critical for a well functioning land market. The City of Blantyre publishes its valuation data¹⁰⁶ but only as downloadable PDF files. This can be improved by publishing the data using open standards and could be a model for other local authorities to publish their land valuation data. This would make the process of valuation transparent for the residents as well as enable more informed planning (improved revenue estimates) by the government. It supports computeraided mass appraisals and allows for improved revenue collection¹⁰⁷ as endorsed by the International Centre for Tax and Development.¹⁰⁸

¹⁰² https://creativecommons.org/

¹⁰³ https://www.data.govt.nz/toolkit/policies/nzgoal/

¹⁰⁴ https://humanrights.gov.au/our-work/commission-general/copyright

¹⁰⁵ https://www.linz.govt.nz/products-services/land-records

¹⁰⁶ https://bccmw.com/document-category/qvr-data/

¹⁰⁷ https://www.ictd.ac/blog/property-tax-reform-increases-municipal-revenue-in-mzuzu-malawi/

¹⁰⁸ https://www.ictd.ac/

Clarify Custodianship of Government Data

In Malawi, the Ministry of Lands is responsible for land administration and regulating land use, including data management. Local authorities and the Malawi Housing Corporation manage similar data. This may result in duplication of data and even conflicting data between institutions under their specific mandates. The Ministry of Land's mandate tends to overlap with local government and parastatals, especially where traditional boundaries are recognized in both entities. Malawi has numerous land policies such as the land policy, housing policy, land use and management policy, mining policy, national parks policy, and forestry policy. The conflicts between these policies may cause confusion over jurisdiction, result in inadequate policy interventions, and affect the accessibility of land data and information. While some overlap in the mandates and responsibilities for land governance between government agencies is normal and can be accommodated, it is important to continue to clarify and demarcate the custodianship of governmental datasets to achieve optimal data management.

Improve Land Data Publishing

In general the following reforms and recommendations for the publishing of more open land data and information should be considered:

- Remove login requirements wherever possible to improve access to land data and information.
- Develop and enforce minimum requirements for the provision of metadata for the different land data categories and types (bibliography, statistical, spatial) and ensure that data custodians adhere to these when publishing land data and information.
- Develop policies for publishing downloadable raw data in machine readable formats alongside visualisations and other summarised results to enable the reuse of data and information by specialist users and members of the public.
- Engage data stakeholders on land sector specific and open data standards when planning to publish open land data. It will promote interoperability and re-use of data and allow for enhanced data integration and better decision making. If needed, consider specialised training on such standards as the Land Administration Domain Model (LADM) Standard ISO 19152.¹⁰⁹

In conclusion, the social economic development of Malawi relies on 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 may perpetuate land administration procedures that are bureaucratic and inefficient and potentially foster corruption. Improved access to and availability of land data and information provides a system for better land governance decisions. Implementing these recommendations will significantly boost the availability of land data and information in Malawi.

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