South Sudan

land portal

State of land information South Sudan

Uncovering South Sudan's land information ecosystem

Our mission

To build an information ecosystem for land governance that supports better informed decision and policy making at national and international levels.

Our objectives

To improve documentation, mapping and monitoring of land governance issues through the provision of a widely used platform which includes structured information, tools and services.

Promote, inform and enrich global debate and practice on key land issues while providing further awareness on selected thematic areas of central importance to land governance.

Raise awareness on Open Data principles, support the creation of a solid data infrastructure and build the capacities of information providers, in order to strengthen the flow of land governance information at all levels.

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Executive Summary

With this State of Land Information Report we seek to provide an overview of existing data and information on key land issues. Our aim is to uncover the many different sources of land data and information in South Sudan and thus provide a basis to substantiate, refute or nuance the often-repeated rhetoric that there is a lack of land data. To this end, we developed an original scoping and assessment methodology building on existing internationally recognized and well-known frameworks. For the very first time, we systematically reviewed and categorized the entire landscape of data and information related to key land topics in South Sudan, assessing over 114 land resources from 70 different sources. This robust scoping exercise not only allowed us to see trends and gaps when it comes to land data collection, but also prompted us to provide very practical recommendations to improve visibility and usability of data and information, and thus improving the land information ecosystem in the country.

In performing this scoping study on "what is known" or somehow documented about land in South Sudan, we considered that it would be an oversight if we only scoped for raw data and statistical indicators. Our expectation was that much of what is known, particularly at the grassroots level, is not captured in an indicator, but rather in a publication or news article, for example. Our research confirms this expectation, highlighting that **85% of key land resources in South Sudan are available as documents, not statistical data.** A large majority of the resource was published between 2010 and 2017 (72%), but notably South Sudan has much more recent resources than the other three countries: 11% of the resources were published in 2018 or after that.

Due to the current political climate in South Sudan, the picture of its land data and information ecosystem is slightly different from the other three countries in East Africa that were included in the pilot State of Land Information Reports. **The main provider of the key resources identified in this scoping study are International Organizations (accounting for 60% of the total), where Research Institutions provide one-fifth of the total.** Governmental Institutions provide a mere 5% of the total resources. Where South Sudan does not differ from the other three countries, is the lack of information provision by National Civil Society. They account for 5% of the key resources that were identified in this scoping study for South Sudan. This suggests that their data and information - which they undoubtedly have - is not published at all, or at least not in such a way that makes it visible for a wider audience beyond the personal networks of these CSOs.

Availability of Data and Information							
Key Category	**Data available?**	**Representation of Sources**					**Data up-to-date?**
		Government	Research Institutions	National CSOs	Int. Organizations	Other	
Land Tenure Data	✘	!	✘	✘	✔	✘	!
Land Cover, Use & Management	✔	✘	✘	✘	✔	✘	!
Land Disputes	✘	✘	✔	!	✔	✘	!
Human Settlements	✔	!	!	✘	✔	✘	!
Land Markets & Financing	✔	!	✘	✘	✔	✘	!
Land, Climate Change & Environment	✘	✘	✘	✘	✔	✘	!

✔ = good practice   ! = room for improvement   ✘ = poor practice

All the resources identified are available online (99%) (though this is a skewed image, considering the scoping study primarily took place online), it is largely available for free (96%) and mostly publicly accessible without requiring registration or identification (99%). The basic access to data and information there seems to be in a very good state in the South Sudan Data and Information Ecosystem. When it comes to more sophisticated accessibility assessments however, the data and information providers score much less high:

Accessibility of Data and Information								
Online	No (log in) barriers	Free (unpaid)	Metadata	Standards	Downloadable	License	Machine-readability	(Linked) Data URIs
✔	✔	✔	✘	✘	✘	✘	✘	✘

✔ = good practice   ! = room for improvement   ✘ = poor practice

Overall, the health of the South Sudan Land Data and Information Ecosystem is scored with **35/105 points.**

Recommendations

Overall, the health of the South Sudan Land Data and Information Ecosystem is scored with 35/100 points. The following recommendations are made while recognizing that the situation in South Sudan remains complex in the light of the ongoing crisis. It is submitted that nevertheless there are things that can be done even in the prevailing context to establish the foundation for meaningful progress when peace is restored.

- **Undertake a rapid assessment to identify (state and non-state) institutions and frameworks** which can form the nucleus for establishing a network on access to land information in South Sudan, and work with them on strategies for carrying the process forward;

- **Support active linkages** between the said group and land information actors in the other countries of Eastern Africa to promote learning, capacity development and networking;

- Work with the group to **integrate access to information in the ongoing peace process,** and to prioritize land governance (policy and institutional development) in peace building and rehabilitation;

- **Support the establishment of a single website f**or data on land and natural resources governance and management;

- **Involve actors from South Sudan in a proposed regional learning event on land governance open data** that aims to enable actors in the region to share and learn from each other and to strategize on regional data access and sharing mechanisms.

Introduction

Availability of accurate and up to date data and information on land and different land uses, such as agriculture, forestry, mining, wildlife, water, housing and infrastructure, is critical to effective land governance and crucial for planning and managing the use of land and land-based resources. Public institutions and the government need land data and information for appropriate and timely decision-making; while land users, the general public and other stakeholders need it to effectively monitor and influence those decisions. Land data and information is also critical for effective tracking of land policy implementation processes to inform lesson learning and generate good practices, as well as to ensure sustainable and equitable land investments.

It is an often-repeated rhetoric that there is a lack of land data; either there is no data or the data that exists is unreliable or out of date. Collecting new data is a time-consuming and costly process. Data is collected and captured on a massive scale already, but research shows that of all existing data worldwide, less than 1% is actually analyzed and digested.[1] With increasing digitization of information, increased use of internet in all parts of the world, and continuously growing demand for more data, the risk is that existing data is either purposely cast aside (as the source may be from outside our trusted networks) or simply overlooked. The current reality of land data is that in many parts of the world, data remains inaccessible, fragmented, poorly managed or simply unusable.

The Republic of South Sudan is a relatively young state in East Africa, becoming independent from Sudan in 2011. Despite being a young country, South Sudan has existed as a separate policy and law making entity for 15 years - first as semi-autonomous Southern Sudan during the Interim Period (2005 to 2011) and since 2011 as the independent state of South Sudan). The government adopted a Right of Access to Information Act in 2013, giving "every citizen the right of access to information, including electronic records held by any Public or Private Body".[2] The most significant policy and legislative developments in the land sector occurred during the Interim Period, climaxing in the enactment of the Land Act, 2009. The challenges of policy development since independence are best illustrated by the failure to complete the National Land Policy, the latest draft of which was approved by the Council of Ministers and presented to the National Legislative Assembly in February 2014. It has been pending there since. The country's progress in policy and law making came to an abrupt and complete halt in December 2013 with the breakout of the current conflict.

For a state that has been plagued with a civil war, data and information collection, provision and publishing have understandably not been high on the government's priority list, nor of other actors. However, we still focus on South Sudan as one of the four countries in East Africa for these pilot State of Land Information Reports, as the land data ecosystem of this young country is still in its beginning stages and growing, which hopefully provides opportunities to build up a healthy data and information ecosystem from its beginning stages.

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1   John Gantz & David Reinsel: "IDC's Digital Universe Study", EMC, December 2012.

2   Article 6, Rights of Access to Information Act, 2013: http://www.ssbalaw.org/downloads/

With this **State of Land Information Report**, we seek to provide an overview of publicly available data and information on key land issues, from not only government, but also other sources. 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 actual data and information gaps, with a view to establishing a baseline for targeted 'information-based' interventions to improve the information ecosystem. What sets this research apart from other monitoring initiatives, is that the focus is on the database or dataset and its sources; the value or content of the information is not our main focus. Our belief is that data quality, accuracy and reliability lies in the judgement of the user. For the very first time, we look at the entire landscape of a country to see trends and gaps when it comes to land data collection, as well as how accessible it is on the world wide web. The State of Land Information report concludes with -where necessary- concrete recommendations to data and information providers to improve their data sharing practices, to help establish a functioning, inclusive and democratized ecosystem of data.

Why is this report useful?

The report is useful as a tool for any land governance work that requires access to data and information. For example, a **researcher** may use this report to identify gaps in information and identify research priorities accordingly. A **land practitioner** working at the global level may use the information sources as a basis to monitor land governance performance against international indicators. **Private companies** may find the report a useful starting point in due diligence processes prior to working or investing in a country. **Local information providers** may identify weak links in their data sharing practices and implement concrete recommendations. **Governments** can use the outcome to establish or strengthen their policies that aim to increase access to data and information by citizens. Ultimately, we hope the report will make data and information more visible and usable by any potential user and thus **improve the local information ecosystem from the bottom-up.**

Methodology

The State of Land Information methodology consists of **two consecutive phases, namely the scoping research, followed by an accessibility assessment of the identified datasets and other sources of information.** These aspects together provide a snapshot of the state of the land data ecosystem in South Sudan in 2019 and the only true, comprehensive reference point for available land data and information in the country. We intend this to be a "living" document to be updated regularly and through an open process.

Scoping the Land Data Landscape

The parameters for the scoping study were set on the basis of key land issues identified by the Land Portal. The mantra of "building on rather than duplicating" that underlies the entire effort of this study has also been applied to the process of identifying the key land issues. We drew from key land indicators and guidelines from several global and regional land monitoring initiatives. The Land Portal team assessed overlaps and availability of information based on indicators identified in the following initiatives:

❶ Sustainable Development Goals, "SDGs" (United Nations)[3];

❷ Voluntary Guidelines on the Responsible Governance of Tenure, "VGGTs" (FAO)[4];

❸ Land Governance Assessment Framework, "LGAF" (World Bank Group)[5];

❹ Global Land Indicator Initiative, "GLII" (network facilitated by GLTN/UN-Habitat)[6];

❺ Monitoring & Evaluation of Land in Africa, "MELA" (IFPRI & Land Policy Initiative)[7];

❻ International Land Coalition Dashboard (facilitated by ILC)[8];

❼ Africa Data Revolution Report (facilitated by Open Knowledge International)[9].

Based on the categories, indicators and principles included in these international land data monitoring and governance guidelines and frameworks, the Land Portal has grouped overlapping indicators and principles into the following seven categories: Legal, Policy & Institutional Framework; Land Tenure data; Land Cover, Use and Management Data; Land Disputes; Human Settlements; Land Markets & Financing; and Land, Climate Change & Environment. For each of those categories, associated key information has been identified based on the principles and indicators identified in the initiatives above. The full methodology can be accessed through the online and open **State of Land Information Research Guide**.

It is important to mention that although the scoping study performed has been as rigorous and as targeted as possible with the use of key issues around land, we do not claim to have captured all data and information ever captured or published about land in South Sudan. Most particularly, offline resources are difficult to find and it is difficult to know all the possible sources that somehow have collected some form of data, information or knowledge about land issues. Moreover, new perspectives are constantly being collected every day.

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3   **https://www.un.org/sustainabledevelopment/sustainable-development-goals/**

4   Food and Agriculture Organization of the United Nations, "Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security", Rome 2012.

5   **http://www.worldbank.org/en/programs/land-governance-assessment-framework**

6   **https://gltn.net/global-land-indicators-initiative-glii/**

7   **https://melafrica.wordpress.com/**

8   International Land Coalition, "The Dashboard Indicators", Rome May 2018.

9   World Web Foundation, "Africa Data Revolution Report 2018. Status and Emerging Impact of Open Data in Africa", 2018.

The picture of the Data Landscape in South Sudan we are presenting in this report is therefore not all-encompassing, but is, rather, a snapshot of a certain moment in time. That said, it is the most comprehensive and definitive resource for land data and information in South Sudan available and will be considered a "living" document that we aim at having updated regularly.

Data or Information?

You will notice we use data and information almost interchangeably, purposely so. When we perform a scoping study on "what is known" or somehow documented about land in a country, it would be a major oversight if we only include raw data and statistical indicators. Much of what is known, particularly at the grassroots level, is not captured in an indicator, but rather in a publication or news article, for example. In this scoping exercise, we therefore very purposely talk about both data and information.

Assessing Accessibility

Following the scoping research, the study focuses on a rigorous assessment based on the accessibility of the identified sources of data and information on key land issues in South Sudan. Similar to the scoping study, accessibility of the data and information was assessed on the basis of key criteria, guidelines and principles that have generally been accepted to define "accessible" and "open" data. The following frameworks and initiatives have been used to identify the criteria:

❶ Open Data Index (Open Knowledge International)[10];

❷ Open Data Barometer (Web Foundation)[11];

❸ 5 Stars of Linked Open Data (Tim Berners-Lee)[12];

❹ FAIR principles of Open Research Data[13];

❺ Open Data Inventory (Open Data Watch)[14];

❻ Africa Data Revolution Report (Open Knowledge International)[15];

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10   Open Knowledge International, "Global Open Data Index. Methodology", consulted website September 2018: **https://index.okfn.org/methodology/**

11   World Wide Web Foundation, "Open Data Barometer. Methodology", consulted website September 2018: **https://opendatabarometer.org/leadersedition/methodology/**

12   Berners-Lee, "5 Stars of Linked Open Data", consulted website September 2018: **https://5stardata.info/en/**

13   Wilkinson, Dumontier et al, "The FAIR Guiding Principles for scientific data management and stewardship", Scientific Data No 3, March 2016.

14   Open Data Watch, "Open Data Inventory 2017. Methodology Report", 2018.

15   World Web Foundation, "Africa Data Revolution Report 2018. Status and Emerging Impact of Open Data in Africa", 2018.

7 EU Open Data Maturity Assessment (European Union)[16];

8 OUR Data Index (OECD)[17].

The Land Portal identified 18 criteria against which every information item identified during the scoping study has been assessed. This has been done on the basis of extensive studying of the available data and information online, as well as contacting data owners with additional questions and clarifications to gain as much information about the particular data or information source as possible.

Why does Open Data matter?

Open Data principles are critical to bring a perspective to data that makes it more useful, more democratic and less harmful.[18] It is a common misunderstanding that publishing publications on a website is all you need to do to make the information accessible and useable. Data that is published according to Open Data principles is much more visible on the web than a single PDF on a website, and, perhaps more importantly, make it possible for anyone to use, re-use and build upon the data for innovations, thereby empowering citizens and fostering transparency and accountability. Open Data empowers, democratizes and enables large-scale impact!

An important caveat to this research is that the above-mentioned criteria and initiatives are based on assessing datasets, whereas this study focuses on documents and other types of information as well. This means that the application of the criteria from the above-mentioned initiative are therefore not always (completely) performed in the way they were intended. To understand how we interpreted those criteria when it comes to documents and other sources of information than data, please refer to our public **Open Data Assessment methodology**.

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16   European Commission, "Open Data Maturity in Europe 2017. Open Data for a European Data Economy", November 2017.

17   Ubaldi, B., "Open Government Data: Towards Empirical Analysis of Open Government Data Initiatives", OECD Working Papers on Public Governance, No. 22, OECD Publishing, Paris 2013.

18   Joel Gurin, "Big data and open data: what's what and why does it matter?", The Guardian, April 15th 2014.

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Availability of Land Data & Information in South Sudan

The availability of land data and information in South Sudan was assessed with reference to: types of data or information, representation of sources of data and information and finally, timeliness of the resources (are they up to date). This is done for all key categories with the exception of the first category, Legal, Institutional and Policy framework, as this category mostly covers the availability of laws and policies, and therefore less suitable to assess based on the aforementioned criteria. For each criteria, a general score is given. ✔ indicates a good practice; ! indicates a practice that can be improved; and ✘ indicates a poor practice. More information about how these scores were allocated can be found in Annex I–Scoring Chart.

Legal, Institutional & Policy Framework

The first category of key land issues is the Legal, Institutional and Policy Framework. The scoping research aimed to uncover whether the legislative and policy framework could be identified with the accessible data and information, as well as use the framework as the basis to find possible data and information providers from the government based on their respective mandates. Naturally, this category lends itself to mostly documents and other types of information, rather than (statistical) data.

Of the four countries reviewed in East Africa (Kenya, Tanzania, Uganda and South Sudan), South Sudan naturally is critically different from the other three countries. The situation of South Sudan with regards to the state of land information is unique for two reasons. Firstly, South Sudan has existed as a separate policy and law making entity for only 15 years (first as semi-autonomous Southern Sudan during the Interim Period (2005 to 2011), and since 2011 as the independent state of South Sudan). Secondly, the country's progress in policy and law making came to an abrupt and complete halt in December 2013 with the breakout of the current conflict.

The most significant policy and legislative developments in the land sector occurred during the Interim Period, climaxing in the enactment of the Land Act, 2009. The challenges of policy development since independence are best illustrated by the failure to complete the National Land Policy, the latest draft of which was approved by the Council of Ministers and presented to the National Legislative Assembly in February 2014. It has been pending there since.

There is no structured framework for facilitation of access to government policies and laws in South Sudan. Many Government websites, including those of the Ministries of Lands and Legal Affairs have long ceased to function. The Ministry of Finance and Economic Planning (http://grss-mof.org) and the Ministry of Gender, Child and Social Welfare (http://mgcswss.org) are the only ones posting current policy documents, but these are limited to their mandates.

Many policy documents were drafted during the Interim Period, but few of them were ever formally adopted, and even fewer are accessible online. Where copies are accessible online, it is impossible to establish their actual status with regards to adoption and implementation. The latest draft of the National Land Policy is not available online.

The website of the South Sudan Bar Association (SSBA) – www.ssbalaw.org - contains the Constitution of the Republic of South Sudan and a good collection of laws, but these do not include the Land Act, 2009. This has only been accessed through the website of the IGAD Land Governance Portal (www.land.igad.int) which also contains a number of policies and papers on land and natural resource governance in South Sudan.

Land Tenure Data

When scoping for land tenure data, the researchers scoped for cadastral data (of mining, forestry or agriculture cadasters) and/or land registry data (are there individual or community land records available; are these disaggregated by urban/rural areas, by gender or rights holder, by indigenous and non-indigenous peoples or communities?). The scoping research also focused on whether any evidence existed on whether or not the land registry data is contested.

Types of data or information

Publicly available information on land tenure identified in this scoping study were **exclusively documents (100%)**. This includes legal information sources (laws and policies) that govern land tenure, as well as various research and assessment reports.

Is there data?	✘

Sources of data or information

International organizations provide 66% of the information identified in this scoping study, in the Land Tenure Data category. The government follows with 15% of the information (though largely policies and laws, some of which were not available online).

Government	Research Institutions	(National) Civil Society Organization	International Organization	Other
❗	✘	✘	✔	✘

Timeliness of data and information

For the timeliness of data and information assessment, we excluded laws and policies because it is not in the nature of laws and policies to be updated regularly. A largely majority of the resources identified were published between 2010 and 2017 (77%), with a minor 4% of the resources published in 2018 or later. A striking result was that nearly 20% of the resources were not dated at all.

Is the data up to date?   **!**

Land Cover, Use and Management

For the Land Cover, Use and Management category, we sought to establish whether there was any land cover data or information (i.e. land surface data, soil type data) or data or information on land management (such as land consolidation, exchanges or other approaches for the readjustment of parcels or holdings).

Types of data or information

A majority of the information on land cover, use and management that were identified are in the form of documents (73%). The documents are legal documents, map documents (published as images), as well as research reports. No raw data associated with these maps or reports were identified in this scoping exercise. Seventeen percent of the data was statistical data and another 10% made up geospatial data. These latter types of data were largely published by international organizations. All the statistical and geospatial data identified were openly accessible without any login or payment barriers.

Is there data?   **✔**

Sources of data or information

International Organizations are the source of 70% of the data and information identified in this category. Government and National Civil Society Organizations both make up 10% of the information provision for this Land Cover, Use and Management category. A notable missing source of information for this category are Research Institutions, not providing any of the key resources identified in the scoping study.

Government	Research Institutions	(National) Civil Society Organization	International Organization	Other
✘	✘	✘	✔	✘

Timeliness of data and information

From the other three East African countries that were included in the pilot State of Land Information reports, South Sudan scores most up to date with the information in the Land Cover, Use and Management category. Just shy of 20% of the key resources identified in this category were published in 2018 or later. The majority of the resources however, were still published between 2010 and 2017 (60%). Another notable finding is that for 15% of the resources, we were unable to retrace the date of publication or collection.

Is the data up to date?	**!**

Land Disputes

For land disputes, the scoping research focused specifically on (historical) data and information. We also looked for data or information on the legal framework for land disputes resolution and specifically evidence on the effectiveness of this framework. Finally, we looked for data on concrete disputes, such as share of land affected by disputes (possibly disaggregated by type of land: agricultural, forest, urban), the number of people affected by land disputes (possibly disaggregated by type of people, indigenous/gender).

Types of data or information

The knowledge found during the scoping study consisted 1**00% of knowledge captured in documents** and no concrete statistical data. The documents found concerned the legal framework, but mainly research reports on (historical) land disputes in South Sudan.

Is there data?	✘

Sources of data or information

Both International Organizations (40%) as well as Research Institutions (30%) provide for the majority of key resources identified in this category. National Civil Society Organizations follow closely, with 20%. Government notably only provides for 10% of the key resources identified in this scoping study.

Government	Research Institutions	(National) Civil Society Organization	International Organization	Other
✘	✔	❗	✔	✘

Timeliness of data and information

The Land Dispute information identified in this scoping study was published between 2010 and 2017. None of the key resources were published in 2018 or after, and for a notable one third of the total resources we were unable to trace a publication or collection date associated with the resource at all. Important to note for this criteria is that laws and policies were excluded from this rating, considering it is not in the nature of such legal instruments to be updated regularly.

Is the data up to date?	❗

Human Settlements

For Human Settlements, the scoping study focused on whether or not there is any data or information about the number of people without a registered address (possibly disaggregated by women, indigenous peoples, youth and other marginalized groups); legal frameworks on (social) housing provisions and any evidence of their effectiveness in practice; data on informal settlements (such as the number of people living in informal settlements; data and information about their access to basic services within informal settlements); laws and policies on regularization of tenure in informal settlements; and any evidence on the implementation and effectiveness of these policies in practice. In addition, the scoping exercise focused on displacement and eviction information (such as the number of displaced people (possibly disaggregated by gender, youth, indigenous/non-indigenous peoples), statistics or other information about the cause of displacement (such as conflict/violence, natural disasters, development, or others) and finally, expropriation data (such as the number of expropriations, statistics or information on the provided compensation for the people that were expropriated, etc).

Types of data or information

From all key land issue categories in this scoping study, the Human Settlements category - with the exception of the Land Tenure data category - has most resources that are available. **Most of the information identified in this scoping study is captured in documents (90%) and 10% of the total identified data and information under this category being statistical data.** The statistical data that was available, is freely accessible without any payment or log in barriers. In fact, those resources in this category that had a payment barrier, were all academic research reports. Another notable finding is that the statistical and geospatial data identified was predominantly published by international organizations.

Is there data?	✔

Sources of data or information

As we have seen with other key categories of land issues in South Sudan, **International Organizations provide most of the key resources for the Human Settlements category as well (69%).** Governmental Institutions provide 13% of the resources identified in this scoping study, followed by Research Institutions that account for 12% of the total key resources identified. National Civil Society Organizations notably provide for less than 4% of the information in this category.

Government	Research Institutions	(National) Civil Society Organization	International Organization	Other
!	!	✘	✔	✘

Timeliness of data and information

In order to gain the most realistic perspective of the timeliness of data and information related to human settlements, laws and policies have been excluded from this particular exercise. In contrast to the other East African countries included in these pilot State of Land Information reports (for Kenya, Uganda and Tanzania), South Sudan again has the most recent key resources in this category as well. Just shy of 15% of the key resources identified were published in 2018 or later. **The majority of the resources, however, were published between 2010-2018 (68%).** For a notable 11% of the resources, we were unable to identify the publishing date.

Is the data up to date?	**!**

Land Markets & Financing

The scoping exercise focused on land valuation information as well as land transaction data and information, such as market transaction data (disaggregated by sale and lease), market transaction data of indigenous and community lands, any information on land investments (if possible, disaggregated by public/private investments, disaggregated by scale of land areas, disaggregated by indigenous and non-indigenous lands, or foreign and domestic investments), as well as data or information on national government's foreign land investments (in other countries).

Types of data or information

The large majority of knowledge about land markets & financing is captured in documents (90%). The scoping study identified only one dataset, the Land Matrix, on large-scale land acquisitions.

Is there data?	**✔**

Sources of data or information

For the Land Markets & Financing category, **International Organizations as the source of the majority of the key resources (72%),** mostly providing for research reports. Governmental Institutions provide a further 18% of the resources, mostly legal documentation such as laws and policies. Research Institutions make up a final 10% of the resources, with National Civil Society Organizations being a notable gap again.

Government	Research Institutions	(National) Civil Society Organization	International Organization	Other
!	✘	✘	✔	✘

Timeliness of data and information

Laws and policies have been excluded from the identified resources under this category, to gain the most accurate picture of the timeliness of the data. When it comes to key resources for Land Markets & Financing, one third of the key resources identified were published in 2018 or after that, which again is a notable difference with the other three East African countries included in this research (Kenya, Uganda and Tanzania). **The majority of the resources (57%) was published between 2010-2017** however. We were unable to verify the publication date of 14% of the key resources identified in this scoping study.

Is the data up to date?	!

Land, Climate Change & Environment

The data and information that was scoped for under the Land, Climate Change & Environment category, was land degradation information (data on proportion of degraded land over total land area, data or information on causes of land degradation), data and information on protected areas (proportion of protected areas over total land area, data or information on existing restrictions of land use or access with regards to protected areas and evidence of possible non-compliance with restrictions) and data and information on natural disasters (data on number of natural disasters per year including disaggregation by type of natural disasters, and number of displacements due to natural disasters).

Types of data or information

In this scoping study, t**he resources identified under this key category were exclusively documents (100%).** Most of these documents include research documents and program reports by International Organizations. Raw data that lies at the foundation of these research documents were not identified in this scoping study.

Is there data?	✘

Sources of data or information

The large majority of sources of the key resources under this category are **International Organizations, accounting for no less than 80% of the resources identified in this scoping study.** Research Institutions and Other sources each account for 10% of the key resources respectively. Notably, both Government and National Civil Society Organizations are missing from this overview.

Government	Research Institutions	(National) Civil Society Organization	International Organization	Other
✘	✘	✘	✔	✘

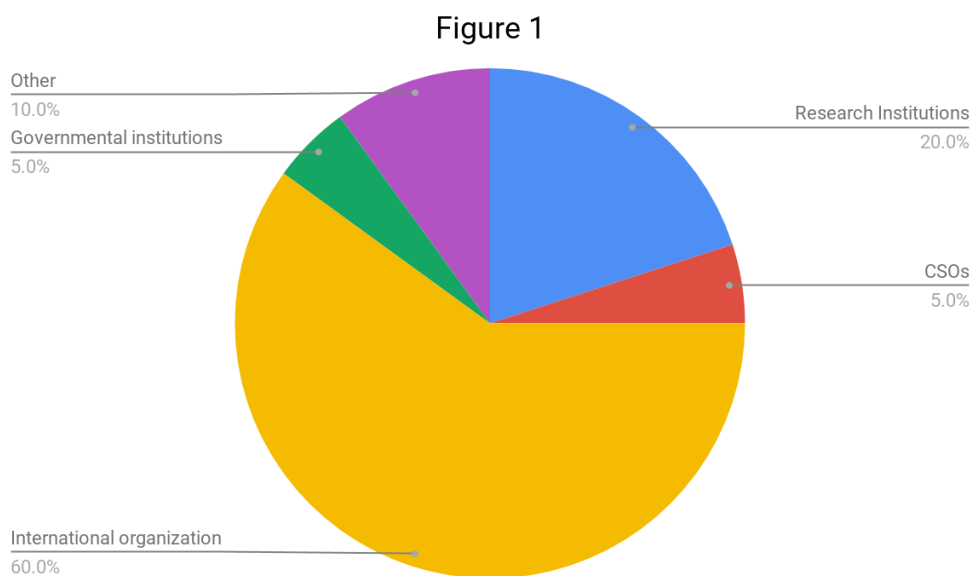### Timeliness of data and information

Similar to the other categories, the majority of Land, climate Change and Environment resources identified in this scoping study were published between 2010-2017, namely 70%. But again, South Sudan scores relatively high compared to other East African countries with the number of key resources that were published in 2018 or later: 20% for this category. Finally, from 10% of the resources, we were unable to identify the date of publication or collection. Important to note with this criteria is that laws and policies have been excluded from this scoring, as it is not in their nature to be updated regularly.

Is the data up to date?	!

Overall Availability of Land Data & Information

Overall, we conclude that as regards land South Sudan has an information ecosystem and not a data ecosystem. Our findings show that over **85% of key land information resources in South Sudan can be found in documents, not datasets.** Although whether or not there are documents or datasets, highly varies between the different categories of land data and information. The documents and data all available are predominantly available online (99%), though this is a very skewed picture considering that offline data and information are harder to access and therefore easily missed in scoping the information landscape.

As regards availability of up-to-date information (excluding laws and policies), only 4% of the information is dated from before 2010, which is understandable due to the relatively young state South Sudan is. We were unable to determine the date of publication or creation for 12% of the information. Altogether, this means that 16% of the total resources are outdated or lack details about date of publication or production. This is the lowest score of the four East African countries we've researched in these four State of Land Information pilot reports. Most of the information identified was published between 2010 and 2017 (72%), with 11% of the key resources identified in this scoping study published in 2018 or later.

A data ecosystem is defined not only by the type and coverage of the information it contains, but also by its data and information providers. The source of data and information is almost as important as its content. As consumers of data and information, our judgment of the accuracy and reliability of the data is, to a large extent, based on our perception of the trustworthiness of the source. From the identified datasets and other resources on key categories of information on land governance in South Sudan, the division of types of information providers can be grouped as follows[19]:

Figure 1

Other
10.0%

Governmental institutions
5.0%

Research Institutions
20.0%

CSOs
5.0%

International organization
60.0%

This overview shows the land data ecosystem of this relatively young state of South Sudan is considerably different than that of the other three East African countries that were piloted, Kenya, Uganda and Tanzania. For a young government in a conflict, data and information provision has evidently not been a high priority. Governmental Institutions make up only 5% of the total information identified in this scoping study for South Sudan. International Organizations have evidently filled this gap, by providing well over half of the total resources identified, namely 60%. Research Institutions are far behind, accounting for one-fifth of the total resources. A common theme across all four pilot countries is that National Civil Society Organization do not publish their data and information in a way that makes it accessible to a wider audience, and thus missing the scope of this study, unless researchers knew personally of the CSOs working on particular issues and knew who to contact or where to find this information. As a result, potentially important perspectives from the civil society are underrepresented in this comprehensive overview of land data, information and knowledge in South Sudan.

● ● ●

19   An important note to this figure in comparison to the scoring per key land category above, is that these aggregate numbers in Figure 1 are calculated based on the resources identified with duplicated resources removed. For example, the Constitution of South Sudan provides information about more than just one key category of land data and will therefore be reflected in more than one category. In this aggregate figure, such a document has only been counted twice. This is particularly visible in terms of the share of government information, which, while still high, is lower than the individual categories above might have suggested.

Accessibility of the South Sudan Land Information Ecosystem

Having mapped the information ecosystem based on availability, type and relevancy of the data and information, the study subsequently focuses on the accessibility of the data and information. **The criteria to assess the accessibility are based on Open Data principles** as laid out in the initiatives highlighted in Chapter 2 of this report. The final criteria against which each document or dataset was assessed against are: 1) Online; 2) Accessible; 3) Free; 4) Metadata; 5) Standards; 6) Downloadable; 7) Open License; 8) Machine Readability; and 9) (Linked) Data URI for key elements of the data.

In this chapter we highlight, per criteria, how the various data and information sources on key land issues are ranked. For each criteria, we provide a general score. ✔ **indicates a good practice;** **!** **indicates a practice that can be improved; and** ✘ **indicates a poor practice.** More details on how those scores are allocated can be found in **Annex I-Scoring Chart**. The chapter concludes with an overall assessment of these criteria combined to provide one measurement for the state of South Sudan's data and information ecosystem.

Online

A first criteria to assess the accessibility of key land resources is whether or not the information is available online or offline. The findings of the scoping exercise are positive and indicate **99% of the key resources are available online.**

Why is it important data & information are online?

Only 55% of the world's population makes use of the Internet as of June 2018.[20] A valid question therefore is why data or information being online is one of the criteria used to define accessibility. There has been an exponential increase in Internet users in the last few years, particularly in the global South. Another undeniable advantage of the Internet is that knowledge can reach a great audience at an unequalled speed and scale than any other medium. The potential of knowledge being put into practice in other parts of the world, is endless. To ensure maximum reach and impact of data or information, making it available online is essential.

The representation of online materials through this scoping research may be skewed, considering the scoping research was largely a desktop study and offline materials are more difficult to scope. A potential recommendation for continued or future expansion of this scoping research could be to apply scoping methods to allow for more inclusion of offline sources and resources.

Overall Score "Online"   ✔

20   Internet World Stats, "Internet Users in the World by Regions", June 30, 2018, Miniwatts Marketing Group.

Accessibility

The 'Accessibility' criteria looks into the ease with which the resource may be accessed. We studied whether users are required to register, log in or perhaps request access, to be able to study the complete resource of key land information. For this criteria, too, the key land resources in South Sudan ranked very high with **99% of the resources accessible without any log in barriers**. Similar to the 'online' criteria, however, the representation of accessible resources may be biased with the scoping exercise, revealing mostly those resources that are more easily accessed.

Overall Score "Accessibility"   ✔

Free

Another important criteria that helps determine the extent to which data and information is inclusive and useful to a wider audience, is whether or not it is available for free (unpaid). Particularly in the academic sector, data and other research findings are often hidden behind publisher paywalls. So how about key land resources in South Sudan? Our research findings suggest that the data and information ecosystem overall is freely accessible, with **96% of the data and information available on the web for free.** The same caveat applies as for the two previous criteria, in that the scoping research is more likely to identify freely accessible resources than those behind paywalls.

Overall Score "Free"   ✔

Metadata

Crucial to the accessibility of data and information is being able to find it on the web. Metadata, or information about the data or information, is key to catalogue data and information in databases or repositories.

What is metadata and why does it matter?

Metadata, or 'data about data', explains a dataset or information resource and allows for data providers as well as users to understand what the data or information resource is about at a later time.[21] Metadata provides information on the source of the data, the date of publication and other important characteristics of the data. Metadata therefore plays an important role in the useability of the data or information resource. But it is not only that, metadata also plays a key role in discoverability of data and information resources on the web, playing a key role in cataloguing of resources in databases and for search engine optimization.

From the key land resources identified in this scoping exercise, o**nly 32% of the data and information came accompanied with metadata**.

Overall Score "Metadata"	✗

21   GODAN Action, "Open Data in Agriculture & Nutrition: Making Data Open", November 2017.

Standards

The standards criteria is based on the FAIR-principles and is arguably one of the more subjective criteria to assess accessibility of key land data and information in this study. The importance of standards in accessibility of data is largely uncontested, the qualification of whether something is a 'standard' or not is mostly subjective. The approach taken here is to assess whether any kind of standard is used, whether that is a standard way to classify geographical or topical coverage, or the type of metadata fields.

Potential of a Standard Vocabulary for Land

Land is a topic which is debated across the world, in many natural languages and in a variety of different (academic) disciplines. Having a common and standard vocabulary to classify data and information to ensure no perspective is lost, is therefore very important. When a grassroots NGO wants to spread its good practice on mapping land boundaries in a "favela" in Rio de Janeiro, it would be a missed opportunity if this could not be applied in a "township" in Johannesburg, simply due to a linguistic difference in describing an issue– and therefore the right connections are not being made. To accommodate for the fact that no vocabulary standard for land existed, the Land Portal helped facilitate the establishment of LandVoc, the Linked Land Governance Thesaurus.[22] LandVoc is a part of widely accepted agriculture thesaurus by the Food and Agricultural Organization, AGROVOC.

Sixteen percent of the data and information providers make use of standards in their data or their metadata. Of the total resources, including those that did not provide metadata, a mere **5% of the key resources were published using standards** either within the data or its metadata. Commonly found standards were ISO3 codes as well as DOI identifiers, when publishing data.

Overall Score "Standards"	✗

● ● ●

Downloadable

A measure of accessibility that is crucial for the usability of the data and information, is whether or not the data or information can be downloaded by the user. Downloading the data allows a user to perform more rigorous data analysis and application for their particular use; it is also important to be able to reach offline communities and make the data or information useful to them. In principle, many of the key land resources are downloadable by the user. About 5% of the data providers actually prevent a user to download the data and restrict its use to their own platform (unless one would download an entire webpage in itself). However, in order to meet the accessibility criteria, being able to download a single file is not sufficient. The data and information should be downloadable in bulk and/or queried in bulk through an API or other access protocol. The data and information providers scored incredibly low on this criteria - **only 2% of key land resources are available to download in bulk.**[19]

Overall Score "Downloadable"   ✘

Open License

A license regulates the manner in which data and information can be used. It is one of the cornerstones of Open Data, because the Open Definition[24] specifies that open data should be allowed to be used, re-used and modified by anyone and for any purposes. This includes commercial purposes, thereby allowing a data user to make a profit out of the use and application of another party's data.

● ● ●

23   When the key resources referred to a document, the downloadable-criteria was applied to the database this particular document was hosted.

24   **https://opendefinition.org/**

From the key resources on land in South Sudan, **24% of the information providers have applied an open license to their resources.** A staggering 72% did not provide any type of license when publishing the data. Of the resources that were provided with a license, only 21% of those licenses met the 'open'-criteria and thus allowed for re-use of the data or information. Many resources identified were licensed with an 'All Rights Reserved' license, meaning users will have to contact the data or information owners and gain explicit permission to use their data or information for an explicit purpose. **Of the total resources, only 5% provided an Open License.**

Overall Score "License"   ✗

Machine Readability

The criteria of machine readability is a common criteria used to assess compliance with (linked) open data principles. As mentioned, the Open Definition includes that data and information should be able to be re-used and modified by anyone for whatever purposes. For users to be able to modify, re-use and build on existing data–for example by designing innovations or technologies based on the data–the data needs to be in a machine readable format. A machine readable format means that a machine (a computer) can easily process the data.

A mere 10% of the key resources related to land in South Sudan are published in a machine readable format. The most commonly used formats for data and information are PDFs (not machine readable), HTML, CSV and XLS (the latter two are common formats for tabular data). An important caveat to mention with this criteria is that machine readability in the Open Data assessment tools on which these Accessibility criteria are based, really applies to raw, numerical data - not documents. The laws and legislations various websites, for example, are available both in PDF as well as HTML formats. HTML is a machine readable format. The application of this criteria on such documents (which, as mentioned, account for 85% of the key land resources in South Sudan) needs to be interpreted carefully; having an HTML page through which a computer could process the contents, does not mean that the raw HTML code allows for 'clean' data exchange or application in technologies without any manual intervention. To mitigate this, the criteria was applied to the metadata of documents, where possible, not the document itself.

Overall Score "Machine Readability"   ✗

● ● ●

25   More specifically, PDFs can be read by computers but it is not easily editable or processable by machines.

(Linked) Data URI

The final criteria in our Open Data-compliance assessment is investigating whether the key land resources can be awarded the fourth star of the famous "Five Stars" of Linked Open Data.[22] This fourth star is awarded to a dataset if it contains URIs: a Uniform Resource Identifier. The URI was invented by Sir Tim Berners-Lee as a protocol to provide unique 'identifier' to a resource, a piece of data. This unique identifier is usually in the form of a code that should not change in the future; it is an ever-fixed reference point in the world wide web, completely unique for this one resource. Each indicator, piece of data and overall dataset should have a URI to comply with fifth star of Linked Open Data. If that URI refers to (links) to other URIs, we create what Sir Berners-Lee called the "linked web".[23]

South Sudan attains a very low score when it comes to this criteria. **Only one of the key resources contained unique identifiers to classify key elements or the data or metadata.**

Overall Score "(Linked) URIs"	✗

Overall Accessibility assessment

The **South Sudan Land Data and Information Ecosystem scores well with a basic interpretation of accessibility, namely whether it is online, accessible without registration or other types of barriers, and free.** However, true accessibility of data goes much beyond these three criteria. True accessibility of data and information means that any person is free to use, re-use and modify the data and information for any possible purpose and that the data and information is published in such a way that allows for effective and unrestricted flow across websites and to and from people. For these latter accessibility criteria, the South Sudan Land Data and Information Ecosystem scores much less high.

A lot of key land data and information on South Sudan is available online, can be accessed without needing to register or request access and can be viewed without needing to pay. **The discoverability of the resources within the ecosystem is still considerably poor.** Thirty one percent of the data and information were published with metadata and even fewer made consistent use of standards in their metadata. In several instances, a publication date of a particular resource was untraceable. Not only do these weak data publishing practices make the data and information less discoverable on the web (metadata and standards strengthen the (relevant) cataloguing in databases and the web in general), but it also restricts the possible use of the resource -- metadata often contains vital information for a user to determine whether or not the resource is of relevance or of sufficient quality and reliability for them to use.

Scores are equally low for other criteria that are intended to promote the use of the data, for whatever purpose. Only 1% of the data and information are available to download in bulk and only 5% of the data providers apply an open license to their data. What's even more striking, is that 73% of the resources were published without specifying a license! These criteria are at the very core of the Open Definition. Using, re-applying and building on data and information has an enormous potential and can increase the impact of the knowledge considerably. Another criteria that supports re-use and modification of data and information, machine readability of data and information, did not meet much better results: 11% of the data and information are made available in a machine readable format.

Finally, as regards having unique identifiers (URIs) for key elements of data and/ or metadata and linking to other URIs, only one key resource provided this in their data.

Overall Score South Sudan "Data & Information Ecosystem"   **35/105!**

Conclusions & Recommendations

It is an often-repeated rhetoric that there is a lack of land data - that the data is either unavailable of if available is unreliable and/or out of date. With this State of Land Information Report we seek to provide an overview of existing data and information on key land issues. Our aim was to uncover the many different sources of land data and information in South Sudan and thus provide a basis to substantiate, refute or nuance the rhetoric that no land data exists. For the very first time, we looked at the entire landscape of data and information related to land in South Sudan, assessing over 114 land resources from 70 different sources, to see trends and gaps when it comes to data collection as well as how accessible it is on the world wide web. Ultimately, we hope to improve the overall health of the South Sudan Data & Information Ecosystem on land.

The statement that there is a lack of data is partially accurate: **our scoping exercise shows that 85% key land resources are available as documents, not statistical data.** However, there was no key land category where no knowledge or information was found, suggesting that there is indeed knowledge generated and published, but not (yet) translated to statistical data (where possible). Our research also shows that the knowledge is published online (99%), it is largely available for free (96%) and mostly publicly accessible without requiring registration or identification (99%). The rudimentary access to data and information there seems to be in a very good state in the South Sudan Data and Information Ecosystem, but important to mention is that those resources that are online, free and accessible without barriers are also those most likely to have been identified in our scoping exercise.

Another important caveat to the statement knowledge was found for each key category of land, is that there were **very little key resources that were as recent as last year (2018) or published since then (only 11%)**. Admittedly, this is the best score of the four East African countries included in these pilot State of Land Information Reports (other countries are Kenya, Uganda and Tanzania). But South Sudan was no different than the other countries in that most of the resources were published between 2010 and 2017 (72%). Fifteen percent of all resources that were identified in the scoping study were either dated from before 2010 or published without a clear publishing or collection date. This is a significant constraint for these resources to be useful or used.

Another important aspect that defines the usability of a resource for a user, is knowing the source of the data or information. Other than the other East African countries, in South Sudan International Organizations account for most of the key resources identified (60%). Research Institutions follow by providing one fifth of the total resources. The government is a noticeable gap, accounting for no more than 5% of the total key resources, but understandable given the current political situation in the country. Where South Sudan does not deviate from the other four East African countries in terms of weakest link in information provision **national Civil Society Organizations**, who accounted for less than 5% of the total resources identified and provided little information for almost each key category. This is not necessarily because CSOs do not have data, information or knowledge to share, and may well reflect on their poor information sharing practices, and demonstrate the need to improve the discoverability of their perspectives online.

Availability of Data and Information							
Key Category	Data available?	Representation of Sources					Data up-to-date?
		Government	Research Institutions	National CSOs	Int. Organizations	Other	
Land Tenure Data	✘	!	✘	✘	✔	✘	!
Land Cover, Use & Management	✔	✘	✘	✘	✔	✘	!
Land Disputes	✘	✘	✔	!	✔	✘	!
Human Settlements	✔	!	!	✘	✔	✘	!
Land Markets & Financing	✔	!	✘	✘	✔	✘	!
Land, Climate Change & Environment	✘	✘	✘	✘	✔	✘	!

✔ = good practice   ! = room for improvement   ✘ = poor practice

On accessibility of key land resources, the South Sudan data ecosystem is not quite in a very good state either. As mentioned, on a basic level (available online, for free and without restrictions), the South Sudan information ecosystem performs well. **When it comes to more sophisticated accessibility, however, the state of the ecosystem is still considerably poor.** Only 32% of the data and information were published with metadata and even fewer made consistent use of standards in their metadata. Not only do these weak data publishing practices make the data and information less discoverable on the web, they also restrict the possible use of the resource. Metadata often contains vital information for a user to determine whether or not the resource is of relevance or of sufficient quality and reliability for them to use.

For **other criteria that are intended to promote the use of the data, for whatever purpose, the scores are very low as well.** Only 1% of the data and information are available to download in bulk and only 5% of the data providers apply an open license to their data. Even more striking is the fact that 72% of the data providers do not even specify a license! These criteria are at the very core of the Open Definition. Using, re-applying and building on data and information has an enormous potential and can increase the impact of the knowledge considerably.

Another criteria that supports re-use and modification of data and information, machine readability, hardly met better results, with only 11% of the data and information available in machine readable format. Finally, as regards the criteria of the linked web, namely having unique identifiers (URIs) for key elements of data and/or metadata and linking to other URIs, only one of the key resources had this included this in their data.

Accessibility of Data and Information								
Online	No (log in) barriers	Free (unpaid)	Metadata	Standards	Downloadable	License	Machine-readability	(Linked) Data URIs
✔	✔	✔	✘	✘	✘	✘	✘	✘

✔ = good practice   ! = room for improvement   ✘ = poor practice

Overall, the health of the South Sudan Land Data and Information Ecosystem is scored with 35/100 points. The following recommendations are made while recognizing that the situation in South Sudan remains complex in the light of the ongoing crisis. It is submitted that nevertheless there are things that can be done even in the prevailing context to establish the foundation for meaningful progress when peace is restored.

- **Undertake a rapid assessment to identify (state and non-state) institutions and frameworks** which can form the nucleus for establishing a network on access to land information in South Sudan, and work with them on strategies for carrying the process forward;

- **Support active linkages** between the said group and land information actors in the other countries of Eastern Africa to promote learning, capacity development and networking;

- Work with the group to **integrate access to information in the ongoing peace process,** and to prioritize land governance (policy and institutional development) in peace building and rehabilitation;

- **Support the establishment of a single website** for data on land and natural resources governance and management;

- **Involve actors from South Sudan in a proposed regional learning event on land governance open data** that aims to enable actors in the region to share and learn from each other and to strategize on regional data access and sharing mechanisms.

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Annex I
Scoring Chart

For ease of reference and understanding, the various criteria used in availability and accessibility assessments in this study have been collated into three scoring categories highlighted through colors: ✔ **indicates a good practice;** ❗ **indicates a practice that can be improved; and** ✘ **indicates a poor practice.** This Scoring Chart highlights for each individual assessment, how a certain scoring category was determined and allocated.

Types of Data Criteria

We assessed per key land category whether or not there is statistical data available. Please find below the scoring:

Criteria	Scoring Chart
Statistical data is available and accessible, with fewer than 33% of the datasets accessible only after registering or identifying yourself.	✔
Statistical data is available, but more than 33% of the datasets are not accessible without having to register or identify yourself.	❗
Statistical data is not available	✘

Representation of Types of Sources Criteria

Per key category of land issues, we highlighted the groups of sources and assessed their contribution to the key resources identified for each respective category. The following types of data and information providers were grouped together:

❶ Governmental Institutions;

❷ Research Institutions (including universities);

❸ (National) Civil Society Organizations;

❹ International Organizations;

❺ Other.

Whenever a data source was an international research institution or international civil society organization, these were grouped under 'international organizations', in order to highlight as much as possible whether a perspective was 'local' or not.

The classification of the representation of these groups for a particular category was done as follows:

Criteria	Scoring Chart
Group accounted for more than 25% of the total resources per category	✔
Group accounted for between 10% and 24% of the total resources per category	!
Group accounted for less than 10% of the total resources per category	✘

The threshold of 25% for the green score was chosen relatively low to avoid misrepresentation of perspectives and reduce the chance that the scoring of one group is too heavily dependent on the actions of another group. For example, in the event many different groups provided a similar amount of resources per category, the respective percentages of the total would automatically be on the lower side (if all provided the same amount, all would account for 20% of the resources for a category). Similarly, if one group of information providers simply provided an extremely large volume in comparison with the other groups, other groups—even though they might also provide a fair amount of data and information—would rank lower simply because another group increased the total significantly. To allocate absolute number-thresholds was not possible either because that would have been heavily dependent on each category and differ per each country.

Timeliness Criteria

For each key category of information, we assigned a red, orange or green score indicating whether or not the key resources are up-to-date. The scoring based on the findings was done as follows:

Criteria	Scoring Chart
Majority of resources were either not-dated or published before 2010	✘
Majority of resources were published between 2010 and 2017	!
Majority of resources were published since 2018	✔

Laws, policies and other legal documentation were purposely left out of this assessment, as it is not in the nature of legal documents to be regularly updated.

Accessibility Criteria

To determine the accessibility of the key land resources in South Sudan, the resources were assessed against the following criteria:

❶ Online;

❷ Accessible (no registration or other types of barriers);

❸ Free (unpaid);

❹ Metadata;

❺ Standards;

❻ Downloadable

❼ Openly Licensed;

❽ Machine Readable;

❾ (Linked) data URIs.

We allocated one score (red, orange or green) for each category, assessing all the key resources identified. The scoring was based on the following criteria:

Criteria	Scoring Chart
Accessibility criteria is met by less than 33,33% of the total key land resources	✗
Accessibility criteria is met by between 33,33% and 66,66% of the total key land resources	!
Accessibility criteria is met by exactly or more than 66,67% of the total key land resources	✔

Overall Accessibility Score

Not each of the nine accessibility criteria is generally considered of equal importance. Therefore, to accommodate for that fact and provide a general assessment for ease of reference and understanding, an "overall accessibility" score has been given to assess the overall "health of the Data and Information Ecosystem in the country.

Following the Open Data Barometer methodology[24], particular weight is given to the criteria Free (3), Downloadable (6), Openly Licensed (7) and Machine Readable (8). Points per criteria along with their associated weight have been incorporated as follows:

Accessibility Criteria	Points if red score	Points if orange score	Points if green score
Online	0	5	10
Accessible	0	5	10
Free	0	5	15
Metadata	0	5	10
Standards	0	5	10
Downloadable	0	5	15
Openly Licensed	0	5	15
Machine Readable	0	5	15
(Linked) Data URIs	0	2	5

The total score (if all green scores are given) can be 105 points. Based on the scoring per country of the overall accessibility, a subsequent green, orange or red score will be given to the "overall accessibility" of the information ecosystem. This ranking is allocated as follows:

Criteria	Scoring Chart
Total points below 35	
Total points between 35 and 65	
Total points of 65 and higher	

● ● ●

26   World Wide Web Foundation, "Open Data Barometer. Methodology", consulted website September 2018:
       https://opendatabarometer.org/leadersedition/methodology/