

Senegal

State of Land Information in Senegal

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 South Africa, Uganda, South Sudan, Tanzania, Kenya, and Senegal. We aim to develop SOLI reports for a dozen countries in Africa by 2024. Though SOLI reports are independent research products, they 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.

About the Open Data Charter

The **Open Data Charter** is a collaboration between over 150 governments and organisations working to open up data based on a shared set of principles. ODC promotes policies and practices that enable governments and CSOs to collect, share, and use well-governed data, to respond effectively and accountability to the following focus areas: anti-corruption, climate action and pay equity.

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Executive Summary

This State of Land Information (SOLI) report is an analysis of the current state of land data in Senegal, assessing the availability of land information and the compliance of this information with open data standards.

The momentum is increasing around international land monitoring initiatives, together with an unprecedented demand for free, accessible, and usable land data and information. The increasing digitization of information, internet usage, and growing demand for data transparency have contributed to the expansion of the land information ecosystem. However, the current reality is that land data in many parts of the world remains undocumented, or offline, inaccessible, fragmented, poorly managed, and otherwise unusable.

Land data is critical to address land governance challenges. Limited access to land data prevents the government from formulating strategies and policies for the delivery of land related services. At the same time, access to data and information can promote transparency, equity and participation, and support sustainable development.

This report's overview of the land data ecosystem in Senegal serves as a baseline and diagnostic tool to inform conversation around land and data governance.

The report provides a scoring of how open land data is. It is meant to enable comparability across countries. Nevertheless the scoring is not meant as a performance tool, but rather a basis to identify opportunities and challenges within the land data ecosystem.

With regard to data governance, Senegal has ratified a range of international instruments that protects public access to information as a right. In addition to that Senegal has a number of national laws that further enhance access to information. However, Senegal has no access to information law yet.

As shown in the table at *page 8*, legal and policy data in Senegal is completely available online, but only partially open – it does not fully have the other characteristics of open data. In fact, no type of land data could be said to be fully open.

Overall, no metadata is made available for legal and policy data, nor for data related to the four land administration functions (tenure, use, development, and value).

In Senegal, land tenure and land use data are generally not available online, making it impossible to assess these data types against the other open data criteria.

Land development plans are freely available on the web, and up to date as PDFs, but with no possibility to extract geographic layers. There is no metadata and licence information.

While access to information as a right is recognized in Senegal, more needs to be done to improve access to data. This includes developing instruments such as data sharing agreements, regulations and plans available.

The assessment revealed that several databases not related to land in Senegal seem to comply with a number of open data criteria. This suggests that a good understanding of open data and a certain degree of data literacy – including at the institutional level – exist in Senegal. This could provide an opportunity for cross sectoral learning and capacity development.

Senegal's commitment to develop an access to information law by 2023 demonstrates the political will and support for more open data in Senegal. A number of strategies, policies, and projects are currently in place that indicate progress is being made to create a stronger and more open land information system. Success in these projects may improve Senegal's open data compliance in the medium-to-long term.

Open Land Data Assessment for Senegal



	Online	Accessible	Free	Timely	Metadata	Standards	Downloadable	Open licence	Machine readable	Uniform Resource Identifiers	TOTAL
Legal	Yes	Little	Yes		None	None	None	None	None		Partial
Land Tenure	None	None	Unknown		Unknown	None	None	None	None		None
Land Use	None	None	Partial	Due to the lack of information available, Timeliness did not factor into the assessment.	Unknown	None	None	None	None	Uniform Resource Identifiers could not be assessed due to lack of information and available online data.	None
Land Devpt	Little	Little	Partial		Unknown	None	None	None	None		Little
Land Value	None	Little	Partial		Unknown	None	None	None	None		None
Other Land Data	Yes	Yes	Partial		Partial	Little	Partial	Yes	None		Partial
OVERALL	Little	Little	Partial	Unknown	No	No	No	No	No	Unknown	Little

Unknown: Where we could only make a partial assessment of some data categories resulting in a score of “unknown,” it is treated as a “none” in the overall assessment. This applies to the “unknown” assessments for the Free and Metadata criteria. The underlying premise is that if an assessment could not be made, that information category is, by definition, not open.

Introduction

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The land sector is extremely contested terrain, as its functions include being a global commodity, a market place, a place of worship and ultimately as an expression of local identity. Given this complexity and the competing interests in land, it is perhaps unsurprising that the land sector has come to be closely, although not exclusively, associated with corruption. Corruption in land affects national economies, and on a local level, illicit dealings in land disproportionately affect the poor and vulnerable members of society. Opening up land information can serve to counter land corruption.¹

Senegal has no Access To Information (ATI) law that complies with the **Model Law on Access to Information for Africa**² as set out by the African Union in 2013. The development of a model ATI law is a landmark for the African Union and places access to information as a fundamental right in the African human rights system. The model law is based on the presumption that information should be open as the default setting, and may only be withheld in exceptional circumstances. It further supports the notion that governments hold information for the public and as a public good.³

The lack of open data and information about land exacerbate land and governance challenges and is reflected in Senegal's performance in global data indices. The **2022 Global Data Barometer**⁴ survey scores Senegal 0 out of a 100 for the openness of its land data.

1 De Maria, M., & Howai, N. (2021). The Role of Open Data in Fighting Land Corruption. Eschborn: GIZ GmbH.

2 https://archives.au.int/bitstream/handle/123456789/2062/Model%20Law%20Access%20to%20Information_E.PDF?sequence=1&isAllowed=y

3 For a comprehensive discussion on the importance of this soft law instrument I would strongly recommend the edited book by Ololade Shylon: The Model Law on Access to Information for Africa and other regional instruments-Soft law and human rights in Africa published by the University of Pretoria Law Press in 2018.

4 <https://globaldatabarometer.org/results/>







More broadly, Senegal ranked 90th out of 187 countries according to the **2020 Open Data Inventory (ODIN)**⁵ with an overall score of 49, and 40 for its agriculture and land-use statistics.

This SOLI Report and the land data rankings confirm that little progress has been made with regards to opening up land data, and that much more can be done in Senegal.

The aim of this report is to serve as a baseline for the land information ecosystem in Senegal and enable targeted interventions for improved information management at a later stage. It begins with the section laying out Senegal's legal framework for data governance. This section looks at the existence, or lack thereof, of an Access to Information (ATI) bill and how land information is treated. We begin the report with this section because any attempt to open up information must be rooted in an appropriate legal framework to ensure transparency about the purpose for which information is collected, stored and disseminated.











The second section, "*Availability of Land Data and Information*" examines the available land data and information in Senegal provided by the government organisations responsible for land administration. The overview is organised according to six key land data categories. The third section evaluates the "*openness*" of this information, by assessing it against 10 criteria for open data, as used by international best practice.

Key Land Data Categories

	<p>CATEGORY 1: LEGAL AND POLICY DATA AND INFORMATION</p>	<p>The availability of data and information on laws, policies, rules, regulations, processes and procedures regarding land and data governance across all data categories.</p>
	<p>CATEGORY 2: LAND TENURE DATA</p>	<p>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 through sale, lease or mortgaging.</p>
	<p>CATEGORY 3: LAND USE DATA</p>	<p>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.</p>
	<p>CATEGORY 4: LAND DEVELOPMENT DATA</p>	<p>An overview of the available land data and information relating to the building of new physical infrastructure and utilities; the implementation of construction planning; public acquisition of land; expropriation; change of land use through granting of planning permissions, and building and land-use permits; and the distribution of development costs.</p>
	<p>CATEGORY 5: LAND VALUE DATA</p>	<p>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.</p>
	<p>CATEGORY 6: OTHER LAND DATA</p>	<p>This 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.</p>

5 <https://odin.opendatawatch.com/>. Note that this index only surveys countries' "statistical offerings". Land tenure data is out of scope.

Open Data Assessment Criteria

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

It is important to note that this research does not attempt to qualify or assess the quality of the data, or make a determination of what constitutes the “best” data, beyond it being open. Data users are best placed to determine what they are looking for in the data, what they wish to use the data for, and make their own determination as to how appropriate the data is for their needs.

Usefulness of the Report

This SOLI report is accessible and free for use and re-use by anyone. It may be of particular use to policy-makers and other government officials, both in and out of Senegal, with an interest in opening up land data in their countries. Journalists, development agencies, and others may use it as a jumping off point for further work and inquiry into land and data transparency. Researchers may use this report to identify information gaps and 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.

Methodology

This SOLI report refers to the Modern Land Administration Theory as a conceptual framework. The **theory**⁶ states that land administration agencies should support sustainable development by contributing to a more integrated information system across government sectors.

6 Williamson, I., Enemark, S., Wallace, J., & Rajabifard, A. (2010). Land Administration for Sustainable Development. Redlands: ESRI. <https://cepa.rmportal.net/Library/natural-resources/Land%20Administration%20for%20Sustainable%20Development.pdf>

Thus it prioritises an information environment that supports managing land and associated resources to respond to national and global imperatives such as poverty reduction, sustainable agriculture, sustainable settlements, economic development and conflict management. Therefore the information needed for the good governance of land must include data on the core land administration functions: **land tenure, land use, land value, and land development**. These core functions should be integrated within a framework in support of sustainable development where data and information on the performance of these functions must be shared and made accessible to enable monitoring and evaluation of performance. We further considered **legal and policy information** on land governance, as well as **other relevant land data and information** as important additional categories of land data and information. For each of the six categories, the team identified key information sources and assessed whether the land-related data and information were readily available, timely, standardised, and openly licensed. Inputs on this categorization and methodology are welcome to continuously improve the process.

An important shift in this report from previous SOLI reports is the focus on government data sources. It has become clear that in terms of land governance, the government is the primary custodian of land data. Our assessment is based on the typical land administration functions of a well-operating system, and presupposes that government departments are able to function as an integrated whole for the purposes of planning and sustainable development. The report prioritises government data and the public sector as producers of land data, while recognising that many other actors may play a role in the production of data.

The research team comprised local and international researchers. The team conducted significant legal and policy reviews, and facilitated two workshops (once in Dakar and once online) with key land data and information stakeholders in Senegal. The team conducted additional stakeholder interviews to complement and validate the desktop research.

“Dataset” as Unit of Analysis

The “*dataset*” is our primary unit of analysis. We define a dataset as “*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, or contain statistical information about the number of women land owners. But a dataset can also be a bibliographic database of publications on a certain topic of land governance. The focus is on government datasets produced as part of ongoing functions, not project data, which entities (donor, private, NGO) might create using data about a specific issue for single use, but that might not be supported on an ongoing basis.

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

Data Governance in Senegal

Land data governance is defined as the legal, policy and management principles that inform the equitable and ethical collection, use and dissemination of data. This section will focus primarily on the collection, use and dissemination of land data and information at the national level.

Data governance is complicated by the hybrid legal status of land in Senegal. The coexistence of registered land and unregistered land – the majority – poses numerous problems both for collecting and managing information about land. This is exacerbated by public and non-public actors not providing open data and information about land.

An access to information (ATI) law is an important marker of data governance because it provides a framework for linking global norms and principles with the local rules and procedures. Senegal currently has no law on access to information (ATI) that is aligned with the expectations of the African Union's **Model Law on Access to Information for Africa**.⁷ However, as a member of the **Open Government Partnership (OGP)**⁸ since 2018, Senegal has committed to greater openness and transparency. Specifically, Senegal has committed to adopting and implementing an ATI law by 2023. Senegal's first **OGP Action Plan (2021-2023)**⁹ is “structured around transparency in public management; public service delivery; and citizen participation.”

7 https://archives.au.int/bitstream/handle/123456789/2062/Model%20Law%20Access%20to%20Information_E.PDF?sequence=1&isAllowed=y

8 <https://www.opengovpartnership.org/members/senegal/>

9 <https://www.opengovpartnership.org/documents/senegal-action-plan-2021-2023/>

Domestic Commitments on Access to Information

Several existing legal instruments already provide a foundation for public access to information as a legal right. These include the Senegalese Constitution; the 1932 decree on the reorganisation of the land ownership system in French West Africa; the National Program for Good Governance (PNBG); and the National Strategy for Good Governance (SNBG). The SNBG was adopted in 2013 to guide actions aimed at promoting a virtuous management of public affairs, based on principles of good governance that guarantees citizen participation.

The **Constitution of Senegal**¹⁰ from 2001 with amendment through to 2016, recognises the “*right to plural information*” as fundamental constitutional “rights and freedoms” as stated in Article 8. Freedom of the press and reverence for scientific information is established in Article 11. Article 13 establishes the right to privacy in the constitution. Seen together, these provisions create a sound foundation for an access to information law while protecting personal privacy.

Senegal has adopted a law guaranteeing access to public information – the **2006-19 Law on Archives and Administrative Documents**.¹¹ The goal of this legislation is to provide a framework for the governance and preservation of historical records from the pre and post colonial era. It does not make provision for a management information system that can support service delivery in relation to land governance. While this is a law primarily focussed on the discipline of archiving, it is significant in that it mentions specifically that access to information is a right and that citizens can expect that the government enables this service. Noticeably the act speaks to both transparency as well as the rights to privacy. It also addresses the need that users have to access information without delay, but also to the modalities of access for a “*modern world*”.

International Commitments on Access to Information

Furthermore, Senegal, as a member of the African Union as well as the United Nations, has ratified a number of international agreements that regard access to information as a fundamental right, and are applicable to Senegal.

- Senegal signed and ratified the **Universal Declaration of Human Rights**¹² which provides for the fundamental right to “*seek, receive and impart information and ideas through any media*” and the **African Charter on Human and Peoples Rights**¹³ which provides for “*every individual ... the right to receive information*”. While this provides a strong and binding legal obligation to provide its citizens access to information, country specific regulation and implementation is still needed.

10 https://www.constituteproject.org/constitution/Senegal_2016.pdf?lang=en

11 <https://www.ofnac.sn/resources/pdf/Lois/LOI%202006-19%20relatives%20aux%20archives%20et%20doc%20administratif.pdf>

12 <https://www.un.org/en/universal-declaration-human-rights/index.html>

13 <https://www.achpr.org/legalinstruments/detail?id=49>

- Senegal has also ratified the **International Covenant on Civil and Political Rights**¹⁴, which states in Article 19 (2) that “*freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, ..., or through any other media*”.
- The **United Nations Convention Against Corruption**¹⁵ in Article 10 (a) requires signatories to adopt “*procedures or regulations allowing members of the general public to obtain, where appropriate, information on the organisation, functioning and decision-making processes of its public administration and, with due regard for the protection of privacy and personal data, on decisions and legal acts that concern members of the public*”. It is worth noting that this article also addresses the issue of privacy and data protection.
- Similarly, Senegal has also signed up for the **Sustainable Development Goals**¹⁶ which recognise access to information as a key goal for sustainable development of society.

Land-specific Legal Framework

There is no specific land information policy or legislation in Senegal, but several legal instruments make provision for the dissemination and publicity of land-related information. **The General Code of Local Government (Law 2013-10)**¹⁷ stipulates the modalities of access to public information of local authorities. However, in Senegalese legislation several points suffer from a legal vacuum due to the lack of precision in certain laws.

Law 72-1288¹⁸ makes provision for the use of the land file and the land register in order to manage information on land allocations and deallocations. Law 72-1288 also requires that the administrative authorities (prefect, governor) specify the conditions for the allocation and withdrawal of land from the national domain by means of a decree on how to develop land allocated from the national domain. This decree has never been issued by those concerned. Similarly Law 72-1288 had announced the use of the land file and the land register for land governance in order to manage information on land allocations and deallocations. However, no clarification has been given on the format or minimum content or medium. While it is stated that the land register must be available in duplicate, one at the level of the local authority and the other at the sub-prefecture, the extent to which this law is enforced could not be determined.

14 <https://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx>

15 <https://www.unodc.org/unodc/en/corruption/unac.html>

16 <https://www.undp.org/sustainable-development-goals#peace-justice-and-strong-institutions>

17 https://base.afrique-gouvernance.net/docs/snarga_loi_no_2013-10_du_28_de_cembre_2013_portant_code_ge_ne_ral_des_collectivite_s_locales.pdf

18 http://hubrural.org/IMG/pdf/decret_2020-1773_modifiant_le_decret_72-1288_relatif_aux_conditions_d_affectation_et_de_desaffectation_des_terres_du_domaine_national.pdf

Despite the absence of a law on land information, several land governance reforms have recognised that land data and information is critical for development and improving land governance. The **first modernised cadastre**¹⁹ created a digital database of cadastral survey and fiscal information, and analysed the data via a geographic information system. Efforts are ongoing to create a Land Tenure Information System (SIF) at regional level supported by the international donor community. The goal of the SIF is to provide for the digital collection, use and management of land tenure and associated data at local level. The SIF is a designed to meet several objectives, including:

- Storing and archiving land information
- Monitoring land procedures
- Tracking information on the assignees
- Tracking requests pending settlement
- Maintaining land statistics
- Visualising land use
- Supporting decision-making

However implementation of the digital SIF has not been completed.²⁰ This may result in incomplete and duplicate land data in the communes, exacerbated by the fact that prior to the introduction of the digital SIF, local authorities did not always have complete land records.

The governance of land data in Senegal is fragmented and diffused at all levels. However its international and domestic commitments provide a setting for developing a well-functioning land data and information framework, including an access to information law. This work will help enhance the governance of land and data for public benefit.

19 <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/SENEGAL-LAND-REGISTER-MODERNIZATION-RAPPORT-PAMODGID-VERSI.PDF>

20 World Bank Community-based Sustainable Land Management Project (P124018) Status Report—<https://documents1.worldbank.org/curated/en/732971623836481056/pdf/Disclosable-Version-of-the-ISR-Community-based-Sustainable-Land-Management-Project-P124018-Sequence-No-14.pdf>

Availability of Land Data and Information

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This section seeks to describe the land data and information discovered in Senegal according to six key data categories. The **six data categories** represent land governance data that are the most relevant and that needs to be readily available, timely, and standardised to increase public impact. The data to be considered for analysis should ideally relate to the primary functions of government in administering land. As such, modern land administration theory, which prioritises the management of land in support of sustainable social, economic and environmental development, provided the first four categories: land tenure, use, value, and development. Additional consideration was given to the enabling legislative framework for land governance within which these functions operate, as well as making provision for “*other land data*” depending on the country context.

The major land data and information custodians are largely from the government ministries and departments responsible for national statistics, urban and rural planning, the cadastre and taxation and agriculture.



Category 1: Legal, Institutional and Policy Data

This category comprises data and information related to land governance, as well as policies that govern national data infrastructure more broadly. It mostly includes bibliographic data primarily from government sources. The purpose of this section is to describe the extent to which policies, laws, rules and regulations regarding land governance across all the data categories are made readily available online.

Senegal's legislation, bills and regulations are available online, including all land-related legislation and the laws related to the transparency of governmental activities. The Constitution, the 1932 decree about the reorganisation of the land ownership system in French West Africa, the National Program for Good Governance (PNBG) adopted in 2002, as an instrument to promote efficiency and transparency in the management of public affairs, and the National Strategy for Good Governance (SNBG) adopted in 2013 are all available online. The SNBG guides actions aimed at promoting the virtuous management of public affairs, based on the principles of good governance to guarantee citizen participation in support of socio-economic development and prosperity. These good governance efforts have been consolidated with the Emerging Senegal Plan (PSE), which is also online. Senegal also established, by Law No. 2012-30 of December 28, 2012, an independent administrative authority, called the National Office for the Fight against Fraud and Corruption (OFNAC),²¹ to strengthen fiscal and financial transparency.

Senegal's national **Digital Senegal 2025**²² strategy, under **Ministère de l'Économie Numérique et des Télécommunications**²³ includes open data. Under this strategy, Senegal has committed to developing an open data framework and digitising the value chain for agriculture, fish, and livestock. Its action on agricultural performance measurement implies data collection on land. The strategy does not detail specific mechanisms for data collection for this objective, but provides strategic direction to other governmental efforts on data collection in agriculture and land management.

In the forestry domain, the **Politique Forestière du Sénégal 2005-2025 (Forestry Policy of Senegal)**²⁴ includes plans to perform data collection at the village level for forest management/inventory, conservation and resource management. Data related/generated from under this policy was not found.

Senegal's data governance includes a Data Protection Act passed in 2008²⁵ and a Commission de protection des données personnelles (CDP), a **national level commission on personal data protection**²⁶ established in 2016. The Data Protection Act governs the collection, storage and use of personal data.

21 Senegal Action Plan 2021-2021.

https://www.opengovpartnership.org/wp-content/uploads/2021/08/Senegal_Action-Plan_2021-2023_EN.pdf

22 <http://www.numerique.gouv.sn/mediatheque/documentation/strat%C3%A9gie-s%C3%A9n%C3%A9gal-num%C3%A9rique-sn2025-plan-dactions-actualis%C3%A9>

23 <http://www.numerique.gouv.sn/>

24 Politique forestière du Sénégal 2005-2025 <http://extwprlegs1.fao.org/docs/pdf/sen144912.pdf>

25 Data Protection Act Law no. 2008-721

26 <https://www.cdp.sn/>



Category 2: Land Tenure Data

Land tenure in Senegal may be classified as belonging to the national domain, the state domain and private titles. The **national domain** covers more than 95% of Senegalese land, and is governed by Law 64-46. The land under the national domain does not belong to the state and is unregistered. The **state domain**, subdivided into the public and private domain of the State and is governed by Law 76-66. The state domain includes all movable and immovable property and rights belonging to the state of Senegal. The **private titles** are constituted on the basis of definitive and unassailable land titles by ensuring that the holders are guaranteed the real rights they have over the buildings.²⁷

Land tenure data and information is created and managed under different tenure systems, but formal tenure rights is the responsibility of the **Directorate of Taxes and Domains**²⁸ The functions include, land organisation, establishment of land and cadastral documents, land consolidation, identification, demarcation and other operations necessary for the application of the land and property regime, including the supervision and control of the processing of files. Senegal has a cadre of **professional surveyors**²⁹ responsible for collection, processing and submitting cadastral data and information.

The cadastral system maintained by the department of the Conservation of Property and Land Rights guarantees to the holders the real rights they possess over the immovable property subject to registration, under the conditions determined by the present law. This guarantee is obtained through publication in the land registers, in a specific account opened for each building, of all the real rights relating to it as well as of the modifications of the same rights. This publication is preceded by verification of the justifications produced and by being authentic with regard to third parties. In order to allow this publication, the buildings must be, following a special procedure, previously registered in the land books. Only the state is authorised to request the registration of immovable property in the land register. The lands of the national domain are registered in the forms and conditions fixed by the regulations adopted in application of law n° 64-46 of 17 June 1964 relating to the national domain. The buildings of the Civil Code are registered in the light of the decree noting the lapse of the rights registered therein, incorporating them into the national domain and prescribing their registration in the name of the state. Real estate in the public domain that has been decommissioned and incorporated into the national domain, as referred to in Article 19 of the Code du domaine de l'Etat, is registered upon receipt by the Registrar of the registration request.

27 For more information see the Land Portal Country Profile on Senegal: <https://landportal.org/voc/regions/senegal> or the Senegal see Brief No. 1: Legal and Institutional Land Tenure Framework in Senegal, IPAR, 2014,

28 <http://www.impotsetdomaines.gouv.sn/fr/missions-de-la-dgid>

29 <https://www.geometres-expertsenegal.com/>

The real estate referred to in Article 27 of the State Domain Code is registered upon simple requisition and without any formalities prior to the creation of the land titles. Such information on land tenure and rights over registered land is kept at the Department of Conservation of Property and Land Rights. Note that the Global Data Barometer (GDB) 2022 report notes that data can be accessed only by request to the 'Direction du Cadastre'. Specific land information can be requested in machine-readable form.³⁰

As part of rural development efforts, the government of Senegal is making existing tenure data available to development projects. The Support for Rural Communities in the Senegal River Valley (PACR) and the Irrigated Agriculture for the Economic Development of the Rural Areas of Podor (AIDEP) use this data in a variety of ways. For example, these projects contribute to the development of a Land Procedure Manual, a Land Registry, a Land File, the Land Application form and the Land Information System (SIF). Users may request paper copies of information held by the projects.

Local projects exist or have existed to establish land information systems, but the developed tools are not operational. The Cadastre and Land Tenure Security Project (Procasaf) is expected to start this year and concerns 136 communes in Senegal. The land reform for a better securisation project, underway for a decade, is still considering the question of disclosure of information relating to land availability and ownership. In addition, the Direction Generale Des Impots Et Des Domaines (DGID), with financing from the Kreditanstalt für Wiederaufbau (KfW) is constructing a digital land management system/cadaster (Systeme de Gestion Foncier) into which the other projects will feed the land ownership data generated. Procasaf is developing a municipal land information system (SIF communal) which will be interoperable.

Some of the biographic data on the irrigated area of Anambe River and the area of the Senegal River valley is online on the site of Société Nationale d'Aménagement et d'Exploitation des Terres du Delta du fleuve Sénégal et des vallées du fleuve Sénégal et de la Falémé (SAED). SAED is a non-governmental civil society organisation whose mission is to promote the development of irrigated agriculture on the left bank of the Senegal River and the Falémé.

Civil society organisations and think tanks usually collect their own data but databases that centralise this information do not exist³¹.

30 Information from GDB 2022 Survey, accessed 26 May 2022

31 https://www.ipar.sn/Plaidoyer-pour-l-elaboration-d-une-politique-fonciere-au-Senegal-en-prealable-a-hhttps://www.endapronat.org/wp-content/uploads/2020/05/A4-Working-paper-03-FRA_Senegal.pdf



Category 3: Land Use Data

Land use data and information is the responsibility of the **Department of Urban Planning and Architecture**³² and is one of the four departments in the Ministry of Urban Planning, Housing and Public Hygiene. It executes the State's policy on urban development, particularly with regard to the development forecasts of cities, the destination and development of their spaces, and their territorial management in consultation with the mayors and municipal councils. The department provides some basic information on development applications and procedures for town planning. It also appears that extracts from cadastral plans may be provided upon request but there is no systematic provision of town planning information, zoning and development plans.

The Direction de l'Aménagement du Territoire, together with the **Agence nationale de l'Aménagement du Territoire (ANAT)**³³, is in charge of making available topographic and cartographic data and information as well as the geolocation of works and infrastructures. It is also tasked with maintaining the National Territorial Observatory and defining and producing the standards and requirements for remote sensing products, cartographic works, and thematic cartography relating to the planning and the development of the territory.

Land use data is generally not openly available online. For data concerning land titles and leases, a request must be made to the Directorate of Taxes and Estates for a paper copy. The data concerning the deliberations can be consulted at the town hall.

32 <https://www.urbanisme.gouv.sn/>

33 <https://www.anat.sn/>



Category 4: Land Development Data

Land development data and information is provided by a range of agencies responsible for land use functions. For example, the Direction des Impôts et des Domaines (DGID) is in charge of administrative and jurisdictional litigation in land and property matters, designing strategies related to land and property management, implementing the land and property missions of the DGID, and managing the State's property.

The **National Agency for Statistics and Demography (ANSD)**³⁴ has the primary responsibility for coordinating, producing and disseminating national statistical data for the government, public administration, the private sector, development partners and the public. Its range of data themes includes housing, social, economic and financial data. Most statistical data is only available as Excel, Word or PDF documents limiting use and openness but is free to use.

ANSD also provides a **cartographic website**³⁵ which makes provision for some basic visualisations but any cartographic products created in the application can only be downloaded as a pdf. Some land development information collected by the National Agency for Spatial Planning (ANAT) of Senegal is available online, but the information collected by the Regional Development Agency and SAED is not online. ANAT's Director of Spatial Planning stated³⁶ that land development data is captured by the **National Land Use and Development Plan (PNADT)**,³⁷ the strategic document of Senegal's territorial development policy, and the Master Plan for Land Use and Development (SDADT) for the area between Dakar, Thiès and Mbour. These plans are available as PDFs and all data about local development plans and allocation is stored by the National Agency & Rural Community in an offline database.

The PNADT presents information on development programmes and projects that the government of Senegal plans to embark on in the medium-long term. This includes **Action 4.67**³⁸ to set up and operationalise a digital land management system, including creating a national digital cadastral dataset, digitising land registries and establishing information systems in local territories for increased transparency. However no mention is made as to whether this will be open for public access.

34 <http://www.ansd.sn/>

35 <http://sigstat.ansd.sn/>

36 1st Stakeholder Workshop—Implementing the Open Up Guide for Land Governance in Senegal: https://docs.google.com/document/d/1lgsM9d3p_9TJDns00PYGY8ezNtneaiXu/edit

37 <http://anat.sn/pnadt/PNADT-Rapport.pdf>

38 As reported in the PLAN NATIONAL D'AMÉNAGEMENT ET DE DÉVELOPPEMENT TERRITORIAL (PNADT) Horizon 2035 <http://anat.sn/pnadt/PNADT-Rapport.pdf>



Category 5: Land Value Data

Land valuation data and information is not commonly available in Senegal. Only very few land parcels are registered and individually owned and legally valued in the manner intended under this section. It is estimated that only about 152,000 land titles (which is less than 10% of the total land rights) are issued, indicating that valuation data is rarely published. The **Ministry of Finance under the General Directorate of Taxes and Domains (DGID)**³⁹ is responsible for land values, registration costs, stamp duties, transfer duties, land tax and similar taxes. While there is no database of land values and revenue collected or derived from land transfers, the applicable forms, documents and rates are published on the website of the directorate. The website also provides information on how land tax returns may be filed as well as applying for leases and the process for conversion of leasehold rights into land titles. The Collection Directorate is responsible for defining and monitoring the implementation of collection strategies and the collection of taxes and fees under the jurisdiction of the DGID. There is no central data repository on property value. Some spatial data exists for viewing in the **Senegal Mining Cadastre Map Portal**⁴⁰, while the Cartographic Atlas contains maps of natural resources⁴¹ (but is not available to download or view online), but no datasets containing land valuation exist.

39 <https://www.senfinances.org/ministere/directions-generales/direction-generale-des-impots-et-des-domaines-dgid/>

40 <https://portals.landfolio.com/senegal/fr/>

41 <http://anat.sn/pnadt/PNADT-Atlas.pdf>

Category 6: Other Land Data

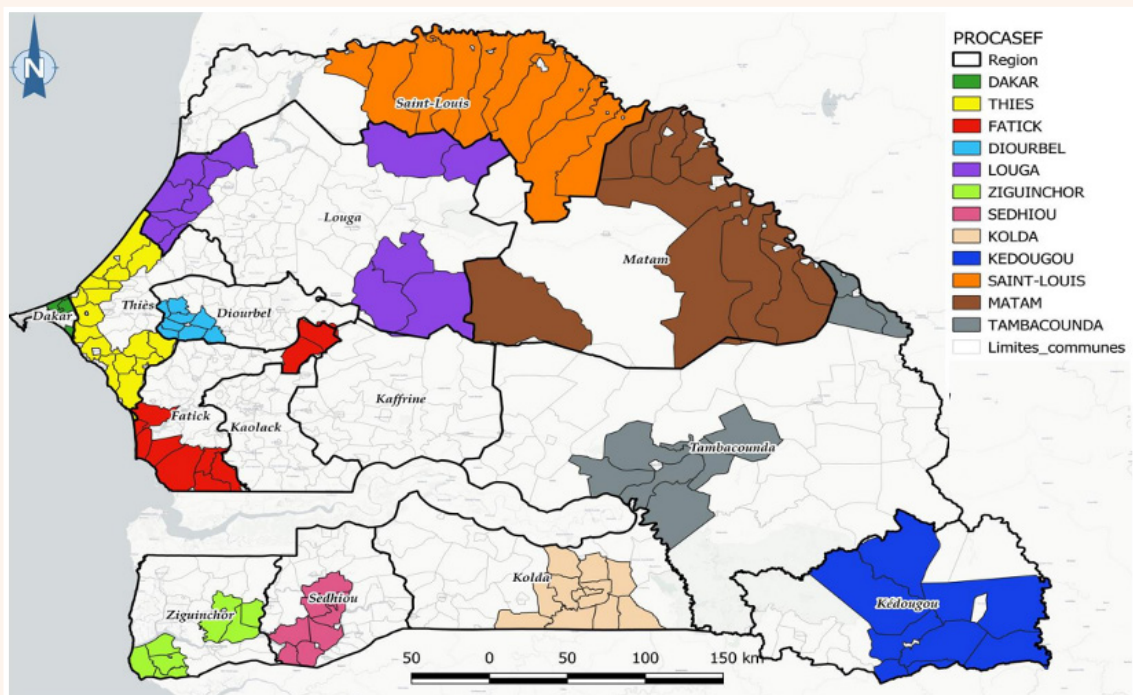
This section includes datasets from the Government of Senegal, as well as datasets created and maintained by external institutions. While data created and maintained by external agencies do not factor into the data assessment scoring, they are included to highlight their role in the data ecosystem.

Notably, the Government of Senegal is in the early phases of a parcel mapping project funded by the World Bank: Le Projet Cadastre et Sécurisation Foncière (Cadastre and Land Security Project). The project is in an early stage as recruitment for the project started in October 2021. It will not have nationwide coverage but will focus on data collection and produce detailed cadastres in specific regions (see figure below).

The National Agency of Statistics and Demographic (ANSD) hosts general information about the basic situation of agriculture, livestock and environment in relation to land governance. ANSD also provides access to a number of databases, including an **aggregated census database, open access database and a research database**⁴².

The ANSD data sets are provided with licensing information, metadata and standards as well as downloads in open data formats.

Figure: Zones d'interventions du PROCASEF



Source: Projet Cadastre et Sécurisation Foncière au Sénégal–Cadre de gestion environnemental et social, 2021 (p10)⁴³

The **National Agency for Spatial Planning**⁴⁴ produces a number of cartographic products including administrative and topographic maps as a paid service.

⁴² Access to Databases–http://www.ansd.sn/index.php?option=com_content&view=article&id=134&Itemid=262

⁴³ <http://www.finances.gouv.sn/wp-content/uploads/2021/04/PROCASEF-Cadre-de-Gestion-Environnementale-et-Sociale.pdf>

⁴⁴ <https://www.anat.sn/index.php>

Agricultural Data cannot be found from the **Ministry of Agriculture and Rural Equipment (MAER)**.⁴⁵ In pursuit of self-sufficiency and food security, it implements strategies and programs aimed at increasing and securing agricultural production and improving its quality. It promotes agricultural diversification and the identification and development of promising agricultural sectors. More specifically, the MAER has set up a program to secure the productive base and develop rural infrastructure which seeks to strengthen the development of agricultural land through fair and sustainable land management. However while the website contains bibliographic data (reports) on some of the projects, no information on agricultural production is available as open data.

The **Annual Agricultural Survey (EAA)**⁴⁶ produced by Direction de l'Analyse, Direction de l'Analyse, de la Prévision et des Statistiques Agricoles provides statistical information on household agricultural production in Senegal. The Annual Agricultural Survey (AAS) is the main nationwide sample survey providing statistics on household agricultural production in Senegal. The 2020-2021 edition contains information on "*Production Methods and Environment (PEM)*" that provides additional detailed data on crop and livestock production methods, the environmental and climate change adaptation problems related to agricultural activity and horticulture and livestock data on these two agricultural subsectors. This information is available online (in PDF formats).

The **Senegalese Institute for Agricultural Research (ISRA)**⁴⁷ is mandated to conduct research in four fields of production (plant, animal, forestry, fisheries) and on socio-economy. The ISRA website has no links to agricultural data but lists numerous projects and a searchable online bibliography repository. A search for land tenure returned 10 reports of which eight were available digitally for download as PDFs.

The **National Company for the Development and Exploitation of the Senegal River Delta and the valleys of the Senegal and Falémé rivers (SAED)**⁴⁸ seeks to promote the development of irrigated agriculture. It has six areas of activity: public investment, maintenance of hydro-agricultural infrastructure, water and environmental management, rural development and land security, support for development and professionalisation, and support for private rural entrepreneurship. SAED serves as the State's project manager for public investments in development and agricultural infrastructure and also advises and supports local authorities concerned with agricultural development.

Extractive industries data and information is published by the National Information System of the EITI Committee in Senegal on an open data portal. The dashboard provides downloadable graphs and tables, allowing easy tables showing the state and evolution of the activities of the extractive sector. Also, this portal shows information about the framework for EITI implementation in Senegal; contribution to the economy legal framework, contracts and licences; actual beneficiaries; state participation and state-owned companies; exploration and production exports; revenue collection and payment data; income allocations; social expenditures; environmental expenditures; data local content.

45 https://www.maer.gouv.sn/points_phares/os-1-augmenter-la-production-et-la-productivite-agricoles/

46 <https://www.dapsa.gouv.sn/content/rapport-eea-2020-2021finale>

47 <https://isra.sn/>

48 <http://www.saed.sn/>

The Direction des Mines et de la Géologie displays a map of valid mining applications and titles on the **Mining Registry Portal**.⁴⁹ Data layers are viewable within the map interface but not available for download.

Land conflict data and information is monitored through the General Directorate of Territorial Administration, the Ministry of the Interior, which has set up a register of land disputes and community conflicts. This mapping aims to put in place a system to prevent or monitor problems related to land occupation. This problem affects all 14 regions of the country, with disputes related to “*problems of subdivision (18.89%), delimitation (villages or communes) (19.86%), land disputes between individuals (34.20%) or between populations and developers (13.02%) and community conflicts (14%)*” according to the Director as quoted in **Le Quotidien**.⁵⁰ According to data from the Ministry of the Interior, there are 307 ongoing conflicts in the country as stated in the same source. The **Directorate of Local Justice and Promotion of Access to Law (DJPPAD)**⁵¹ noted that there are many land conflicts, partially due to “*the casual management of the government, the weakness of the land use planning policy, and the length, complexity and importance of the real or supposed costs of registering land, which discourage those concerned from using it. Also, real estate transactions are carried out on the margins of the law, accentuating disputes and land insecurity*”.⁵²

While these conflicts and problems seem to be common, no openly available data on the conflict mapping could be obtained, and it is not clear on what basis the data is made available or with whom the data is shared. The websites’ reports on the data are often quotations from a presentation or speech, but there appears to be no systematic approach to making the data available at regular intervals. The **Ministry of Justice**⁵³ makes available the odd report and other legal texts while ANAT also has an undated list of the land conflicts concerning the municipal administrative borders.

The **UN Gender and Land Rights Database**⁵⁴ provides country profiles and statistical information on key variables on the distribution of male and female landowners, taken from agricultural censuses.

As Senegal does not appear to generate its own land cover data, this data can be found through international projects such as the **FAO GLC-SHARE database**,⁵⁵ a global coverage dataset with approximately 1 sq km resolution that provides a general set of land cover classes. Additional land data such as digital elevation models can be found via the UN FAO resource directory.

49 <https://portals.landfolio.com/senegal/fr/>

50 <http://lequotidien.sn/conflits-fonciers-au-senegal-terres-minees-plus-de-307-cas-litigieux/>

51 <https://justice.sec.gouv.sn/>

52 <http://www.hubrural.org/Senegal-atelier-de-reflexion-du.html?lang=fr>

53 <https://justice.sec.gouv.sn/publications/rapports/>

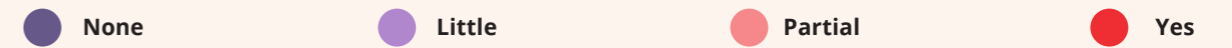
54 <https://www.fao.org/gender-landrights-database/en/>

55 <https://www.fao.org/land-water/land/land-governance/land-resources-planning-toolbox/category/details/en/c/1036355/>

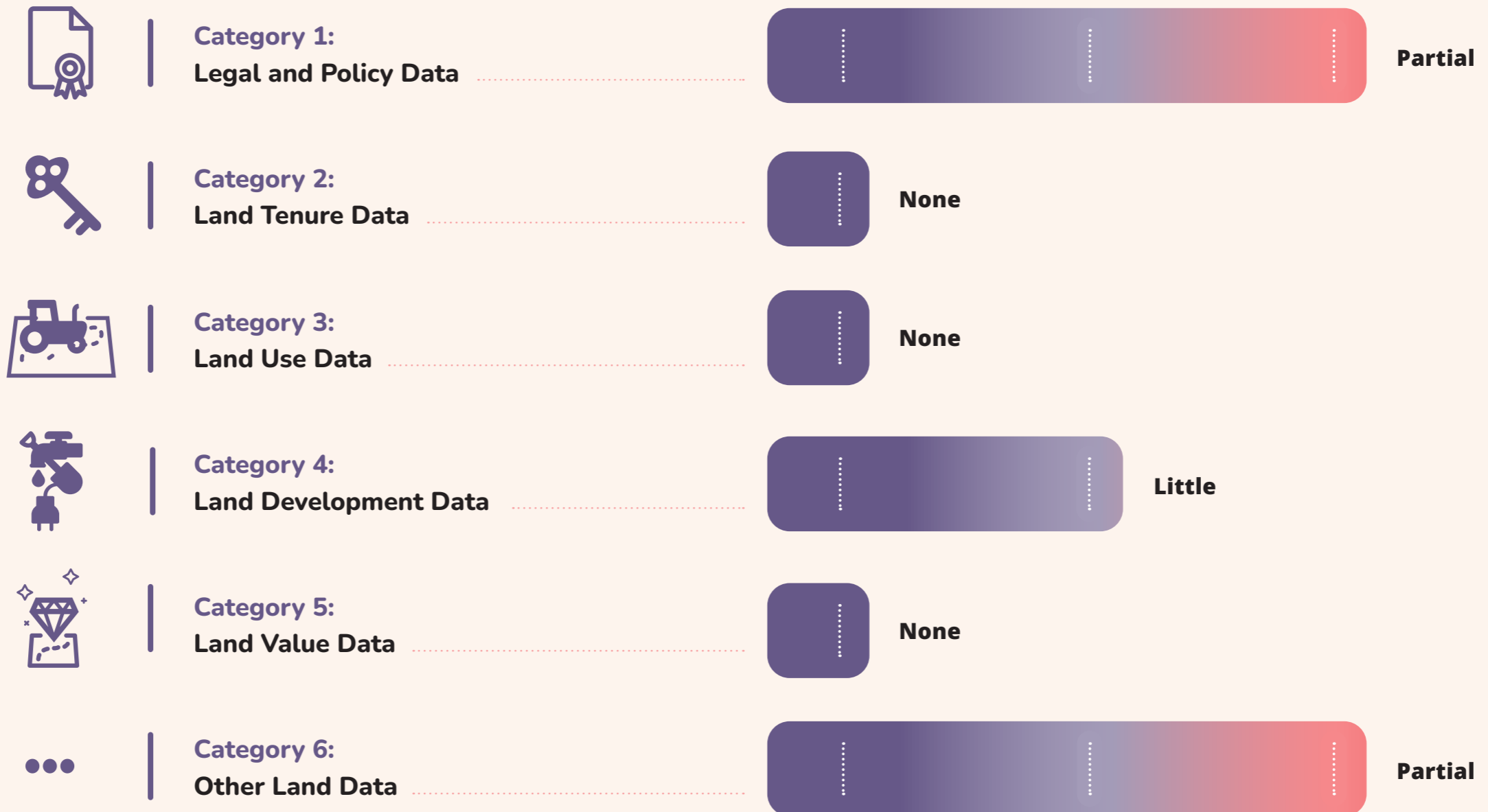
How open is land data and information in Senegal?

The graph shows the openness of each data category. No data and information in the land tenure, land use, and land value data categories fit the open data criteria, which will be further explained in the next section. A small number of materials in the land development category fit the open data criteria. Materials in the legal, policy, and institutional data category, as well as other land data, partially meet the open data criterion. No data category substantially met the open data criteria.

Openness



Challenges



Open Data Assessment in Senegal











30

This chapter assesses the data types described in the previous section – legal policies, land tenure, land use, land development, land value and other land data types – against open data criteria identified in the publication, **Open Up Guide for Land Governance**.⁵⁶ It scores Senegal’s publicly available government databases or datasets against ten open data criteria set out in *Table 1* below. The open data compliance scoring options are described in *Table 2*.

While a score is provided as part of the assessment, it is important to reflect that we are not concerned about 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 support the usability of data for data-dependent services and public interest.





56 <https://landportal.org/library/resources/open-guide-land-governance-version-20-following-public-comments>

Table 1. Open Data Assessment Criteria

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

31

Table 2. Open Data Assessment Scoring

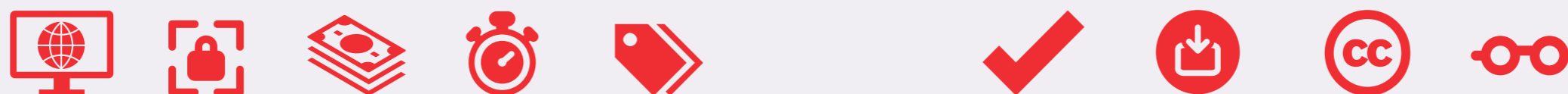
SCORE	DESCRIPTION
 None	There is no evidence of digital or open data
 Little	The digital data meets few of the open data criteria or digital land governance data exists but is not yet online
 Partial	The digital data meets more than half of the open data criteria
 Yes	The digital data meets all or most of the open data criteria

Overall Results

Overall, Senegal experiences a significant lack of open data availability in land tenure and related categories of data. This is partially, but insufficiently, offset by some existing data generated through external institutions. Senegal currently has a number of strategies, policies, and projects in place that indicate progress is being made towards the creation of land management systems. Success in these projects may improve Senegal's open data compliance in the medium-to-long term.

Table 3 summarises our current assessment of Senegal's open data. Note that this assessment covers open data from the Government of Senegal. External datasets created and maintained by civil society or organisations outside Senegal are not factored into the assessment scoring, but are highlighted above where available.

Table 3: Open Land Data Assessment for Senegal



	Online	Accessible	Free	Timely	Metadata	Standards	Downloadable	Open licence	Machine readable	Uniform Resource Identifiers	TOTAL
Legal	Yes	Little	Yes		None	None	None	None	None		Partial
Land Tenure	None	None	Unknown		Unknown	None	None	None	None		None
Land Use	None	None	Partial	Due to the lack of information available, Timeliness did not factor into the assessment.	Unknown	None	None	None	None	Uniform Resource Identifiers could not be assessed due to lack of information and available online data.	None
Land Devpt	Little	Little	Partial		Unknown	None	None	None	None		Little
Land Value	None	Little	Partial		Unknown	None	None	None	None		None
Other Land Data	Yes	Yes	Partial		Partial	Little	Partial	Yes	None		Partial
OVERALL	Little	Little	Partial	Unknown	No	No	No	No	No	Unknown	Little

Unknown: Where we could only make a partial assessment of some data categories resulting in a score of "unknown," it is treated as a "none" in the overall assessment. This applies to the "unknown" assessments for the Free and Metadata criteria. The underlying premise is that if an assessment could not be made, that information category is, by definition, not 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”.⁵⁷ Online open data offers equal access for everyone who has Internet access and encourages transparent, accountable, efficient, and responsive governments, civil society and private sector organisations.

This criteria looked for land governance datasets that are available online, including tools for mobile and offline use. It also noted datasets that are digital and used online within government and other organisations but which are not yet publicly available online. Of the data resources discovered, 72% are online while 28% were offline. All “Legal and Policy Documents” (bibliographic data) that the team identified are available online and constitute the majority (62%) of all online resources. “Other Land Data” constitutes 26% of the total online resources, and together these two categories account for almost 90% of the total online resources. There is very little online data derived from the core land administration functions of tenure, use, development and value. It is noteworthy that the relevant data sources (internal and external to Senegal) and projects appear to be generating digital data, but that is not made readily available online

How much of Senegal’s land data is online?

34



Table 4. Online Scores

CATEGORY	SCORE
Legal and Policy Data	Yes
Land Tenure Data	None
Land Use Data	None
Land Development Data	Little
Land Value Data	None
Other Land Data	Yes
Overall Score	Little

57 International Open Data Principles. <https://opendatacharter.net/principles/>



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 in order to receive updates of the data.

Offline resources are considered not accessible and constitute 31% of the available data and information resources. However, based on the study methodology which focussed on online resources this data is skewed towards online data resources and does not accurately represent the number of undiscovered offline resources. All the “*Legal, Policy and Institutional Framework*” data resources and the “*Other Land Data*” resources are accessible online without a login barrier and constitute 69% of all resources discovered and 92% of all online resources.

How much of Senegal's land data is accessible?

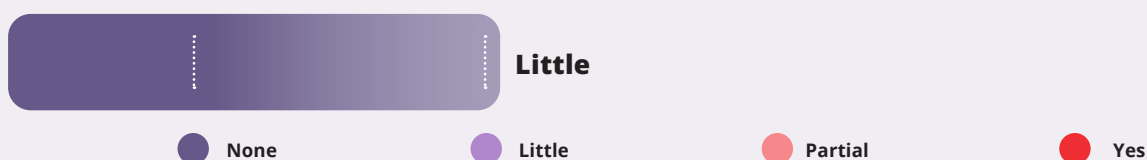


Table 5. Accessibility Scores

CATEGORY	SCORE	NOTES
Legal and Policy Data	<i>Little</i>	The General Secretariat of the Government offers Senegal legislation in HTML or Adobe PDF. The legislation provided by The Centre for Affordable Housing Finance in Africa is available in MS Word or Adobe Acrobat PDF.
Land Tenure Data	<i>None</i>	Land tenure data is not available online. The Direction des impôts et des domaines manages the land registry system but data such as land titles are not available to the public.
Land Use Data	<i>None</i>	The information provided by the local authorities is not available online. Users must access the data produced by the Direction of Tax and Domains about Land Allocation at the government's physical offices. At the local level, the Territorial Authorities provide information about land allocated in the rural community but that information is not accessible.
Land Development Data	<i>Little</i>	While a range of agencies generate digital land development data, very little of it is available online and in many cases it is not publicly available.
Land Value Data	<i>None</i>	While the majority of the biographic data which explains the socioeconomic situations of the rural communities is not available online, the information published by CSOs and private sectors such as mining cadastre, the emergency community and Development Programme is available in PDF formats.
Other Land Data	<i>Partial</i>	Other data from other Government of Senegal sources were also difficult to access due to a lack of searchable interfaces or query tools. Sources such as the Mining Registry Portal provide data, but only in limited formats or with view-only access and without the ability to download.
Overall Score	Little	



Criteria 3: Free

This criterion assesses whether the online land data is released free of charge.⁵⁸ It is worth noting that this assessment excludes bibliographic data such as online articles except for the “*Legal, Policy and Institutional Framework*” category.

How much of Senegal's land related data is available for free?

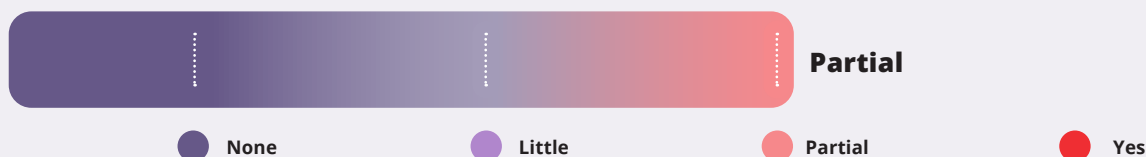


Table 6. Free Scores

CATEGORY	SCORE	NOTES
Legal and Policy Data	Yes	Legislation is freely available in HTML format across government and non-government websites
Land Tenure Data	Unknown*	Data could not be accessed or assessed for fees
Land Use Data	Partial	Data could not be accessed or assessed for fees
Land Development Data	Partial	Development plans were freely available
Land Value Data	Partial	Data could not be accessed or assessed for fees
Other Land Data	Partial	Some cartographic products such as topographic maps and administrative maps produced by the Agence Nationale pour l'Aménagement du Territoire are only available as a paid service.
Overall Score	Partial	

* Where we could only make a partial assessment of some data categories resulting in a score of “unknown,” it is treated as a “none” in the overall assessment. The underlying premise is that if an assessment could not be made, that information category is, by definition, not open.



Criteria 4: Timely

The timeliness of data is defined as data that is updated over an acceptable period of up to one year. That is, if the period analysed is 2021, the data would be up to date until 2020. However, because timeliness is relative to the type of data in question, a lack of a publication date was not considered as indicating a lack of timeliness. Data that did not have metadata on timeliness (including last update, frequency of updates (update schedule) were not assessed.

Table 7. Timeliness Scores

CATEGORY	SCORE	NOTES
Legal and Policy Data	Unknown	
Land Tenure Data	Unknown	
Land Use Data	Unknown	Due to the limited amount of information online timeliness could not be effectively assessed due to lack of information.
Land Development Data	Unknown	
Land Value Data	Unknown	
Other Land Data	Unknown	
Overall Score	Unknown	

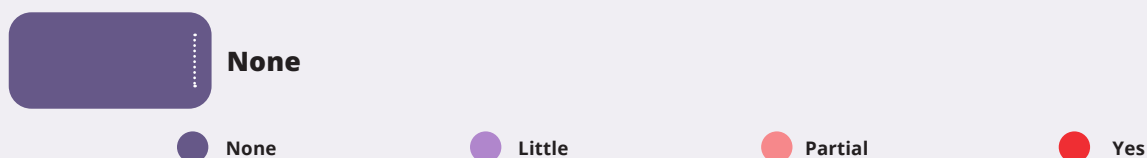


Criteria 5: Metadata

This criterion assesses whether the land governance data include consistent core metadata, the data is fully described, all documentation accompanying the data is written in clear, plain language, data users have sufficient information to understand the source, strengths, weaknesses, and analytical limitations of the data.⁵⁹

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, it makes it easier for users to search for and find the dataset).⁶⁰

How much of Senegal's land data is accompanied by metadata?



38

Table 8. Metadata Scores

CATEGORY	SCORE	NOTES
Legal and Policy Data	No	Generally no metadata was provided, but the nature of legal and policy data ensured that the critical information regarding the legal framework information was available.
Land Tenure Data	Unknown*	Data unavailable to assess
Land Use Data	Unknown*	Data unavailable to assess
Land Development Data	Unknown*	Data unavailable to assess
Land Value Data	Unknown*	Data unavailable to assess
Other Land Data	Partial	Select government sources, such as the National Agency for Statistics and Demography provide documentation of methods and definitions that accompany their statistical outputs. ⁶¹
Overall Score	None	

* Where we could only make a partial assessment of some data categories resulting in a score of "unknown," it is treated as a "none" in the overall assessment. The underlying premise is that if an assessment could not be made, that information category is, by definition, not open.

59 <https://opendatacharter.net/principles/>

60 https://drive.google.com/file/d/1ruIYMNsHLAvfv9OImLDMhEWI_pM_dmL/view

61 http://www.ansd.sn/index.php?option=com_methodes&view=methodes&Itemid=260



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. This 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.⁶²

Land data found from within Senegal was not provided under any data standards. The exception is the National Cartographic Service⁶³ which uses the ISO 19115:2003⁶⁴ standard schema for geographic information and services.

To what extent are appropriate data standards applied to land data in Senegal?

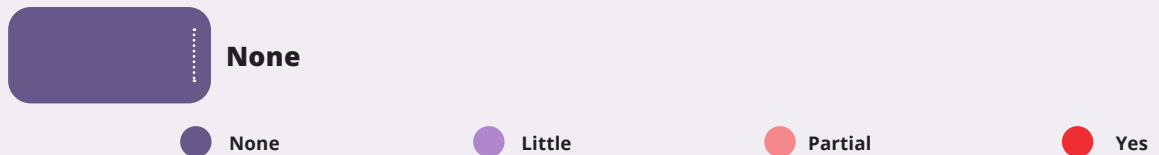


Table 9. Standards Scores

CATEGORY	SCORE	NOTES
Legal and Policy Data	No	
Land Tenure Data	No	
Land Use Data	No	Most land data found in Senegal did not apply any data standards. In the "Other Land Data" category, the National Cartographic Service uses the ISO 19115:2003 standard schema for geographic information and services.
Land Development Data	No	
Land Value Data	No	
Other Land Data	Little	
Overall Score	None	

⁶² <https://opendatacharter.net/principles>

⁶³ National Map—<http://cartenationale.gouv.sn/index.php>

⁶⁴ <https://www.iso.org/standard/26020.html#:~:text=ISO%2019115%3A2003%20defines%20the,distribution%20of%20digital%20geographic%20data.>



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).

How much of Senegal's land data is downloadable?



None



None



Little



Partial



Yes

Table 10. Downloadable Scores

CATEGORY	SCORE	NOTES
Legal and Policy Data	<i>Little</i>	The bibliography data is available for download, usually as pdf, but none machine readable formats and no indication about API's
Land Tenure Data	<i>No</i>	There is no online spatial data and as such it is considered as not downloadable. Available land tenure data included downloadable bibliography data only (rules and procedures) which are considered under the first category.
Land Use Data	<i>No</i>	Data not downloadable
Land Development Data	<i>No</i>	The online land development data are only available as reports in pdf formats.
Land Value Data	<i>No</i>	The land value data sets that were identified included 4 online databases that related to this category and none of them had downloadable data, except for the bibliography data.
Other Land Data	<i>Partial</i>	Some portals offer downloads but in PDF formats.
Overall Score	None	

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Data found in global databases typically had more complete documentation and metadata. For GIS data found outside the Government of Senegal such as UN-hosted databases, data are available for download. However, policies and legislation themselves are not readily available for bulk download. Index or catalogue datasets do exist. The UN FAOLEX database provides CSV downloads of their dataset linking to existing policies and frameworks.⁶⁵ While this assessment highlights external data, external sources did not factor into the assessment score.

65 <https://www.fao.org/faolex/opendata/en/>



Criteria 8: Open Licence

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.⁶⁶ The most common open licence governments use 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.⁶⁷

Are open licences used?

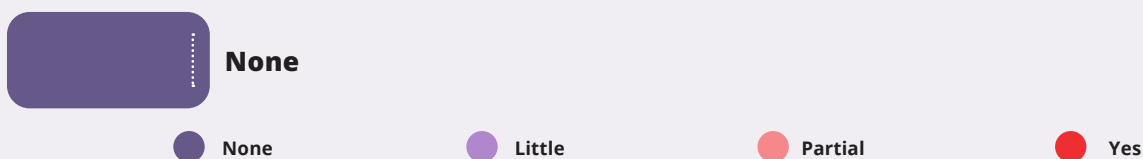


Table 11. Open Licence Scores

CATEGORY	SCORE
Legal and Policy Data	None
Land Tenure Data	None
Land Use Data	None
Land Development Data	None
Land Value Data	None
Other Land Data	Yes
Overall Score	None

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The National Statistical Agency (ANSD) provides its data using the Creative Commons Attribution 4.0 International Licence as the default licence on its website. However the ANSD does not contain core land tenure, use, value or development data in its portfolio. Other land data found from within Senegal was not provided under an open licence.

Data found outside Senegal, including global datasets, varied in their open licence coverage. For example, eight FAO databases are covered by an open data licensing policy.⁶⁸ External data did not factor into the assessment score.

66 <https://opendatacharter.net/principles>

67 <https://creativecommons.org/licenses/by/4.0/>

68 <https://www.fao.org/publications/card/en/c/CA7570EN/>



Criteria 9: Machine Readable

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.”⁶⁹

This is needed by analysts downloading data in bulk for example, for policy development, analysis or visualisation.

How much of Senegal's land data is machine readable?

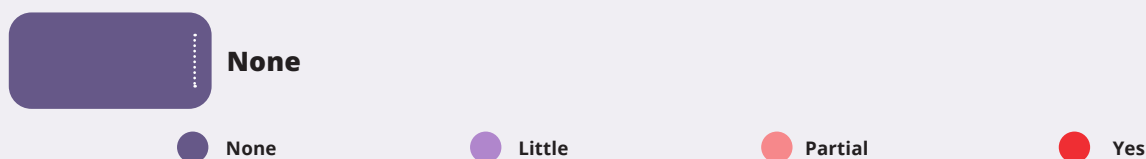


Table 12. Machine-readable Scores

CATEGORY	SCORE	NOTES
Legal and Policy Data	No	There is very little online data available and where data was available, spatial data as well as statistical data, was primarily found in PDF format. Where spatial data was found, it was only available for display and not made available in machine readable formats.
Land Tenure Data	No	
Land Use Data	No	
Land Development Data	No	
Land Value Data	No	
Other Land Data	No	
OVERALL SCORE	NO	



Criteria 10: Uniform Resource Identifiers (URI)

This criterion assesses whether land governance data is made available as Linked Data using uniform resource identifiers (URI). Linked Data is data on the internet which is given a unique name (URI) which is “interlinked with other data” making it more useful when conducting natural language and machine queries. A URI may be thought of as a permanent name (resource identifier) given to an online information resource so that it can always (makes the name uniform on the internet) be identified by search queries. For a further discussion on linked data see⁷⁰.

Due to the lack of data available, Linked Data did not factor into our assessment.

Table 13. URI scores

CATEGORY	SCORE	NOTES
Legal and Policy Data	Unknown	
Land Tenure Data	Unknown	
Land Use Data	Unknown	Uniform Resource Identifiers could not be assessed due to lack of information and available online data.
Land Development Data	Unknown	
Other Land Data	Unknown	
Overall Score	Unknown	

70 What is linked data? Accessed Feb 11, 2022. <https://jsld.org/>

Conclusions

This SOLI report described the legal framework and conditions for accessing land data and information in Senegal, reviewed international and national instruments and commitments, and concluded with an assessment of the openness of land data and information in Senegal.

The SOLI report is an independent research product that also serves as the first step in the implementation of the Open Up Guide for Land Governance. The Open Up Guide 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. Land Portal and Open Data Charter are working with the government of Senegal to pilot the Open Up Guide in Senegal.

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As part of the SOLI research process and the implementation of the Open Up Guide in Senegal, our team has engaged key stakeholders in Senegal's land governance.

We have developed and improved critical knowledge about available land data and information in Senegal, including about the custodians, licences, timeliness and other open data criteria.

Senegal has no law on access to information yet, but it has committed to adopting and implementing an ATI law by 2023. Senegal possesses several key institutions that protect access to information as a fundamental right including several high level international agreements such as the **Universal Declaration of Human Rights, African Charter on Human and Peoples Rights, International Covenant on Civil and Political Rights, United Nations Convention Against Corruption**, the **Sustainable Development Goals** and the **Constitution of Senegal**. While this is a welcome development and should address some of the concerns about access to information in Senegal, there remains some concern about the slow progress towards adopting and implementing national laws and regulations in support of open land data and information.

Interest and awareness about open land data is high. The government stakeholders with whom we engaged demonstrated a level of interest and understanding of key open data concepts. They are very interested in the opportunity to comment on open data and its implications, but also to direct comments to their partners in government. While the demand and enthusiasm for open land data and information from government and non-governmental partners is significant, there are concerns about how data could be made more open. Interest is focussed on safeguarding data to ensure that it is made open in a safe, ethical and just manner.

In general, very little truly open land data and information was discovered for Senegal. While the report lists and describes numerous data sources, documents and maps, these are mostly not in open data formats.

The National Agency of Statistics and Demography (ANSD) hosts **7 distinct databases**,⁷¹ including an open data platform. While these databases are not primarily focussed on land data, it is interesting to note that they provide metadata, open licences, application programming interfaces (API's) and downloadable data in open formats.

This speaks to a level of open data sophistication and capacity, that while not currently applied to the land sector, is nevertheless available in the country.

While there is some open land data and information available for Senegal, there is an opportunity to open up more. Much of the available data, especially bibliographic data, but also some land development data, does not have the technical characteristics of open data. It is possible with limited technical interventions that some of this data could be made more open. Now that the open land data community has been nurtured in the first phase of the project, there is an opportunity to build on this development. There appears to be political will and support for more open data in Senegal. However, in order to make more data open it will be ideal to partner with at least one government department as well as the national statistical agency in the next phase of the Open Up Guide implementation.

Senegal's range of instruments and commitments support more opening up of data in Senegal. The Open Government Partnership Action Plan 2021-2023 outlines commitments towards open data and implementing an access to information act. While these commitments are generally silent on land data, they do present an opportunity for including land data in that conversation. Senegal scored very well for the "*public procurement*" component (above the global average) in the **Global Data Barometer** open data survey of 2022, and also had relatively good scores for open data "*capabilities*" and "*public finance*". In contrast Senegal scored zero for openness in the "*land*" component. Overall, while the open land data ecosystem in Senegal is very limited at present, there are opportunities for expanding and improving on the availability of open land data using the existing capacity in Senegal.

71 http://www.ansd.sn/index.php?option=com_content&view=article&id=134&Itemid=262

Recommendations

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Given the current minimal state of land data infrastructures and lack of available land-related data in Senegal, our recommendations focus on improvements to existing data availability and services that can be made with minimal investment. Utilising the existing open data capacity of the national statistical agency in cooperation with national land data custodians can serve as a foundation for opening up more land data and information.

Our findings show that currently land data and information is primarily delivered in non-open data formats. These include formats that do not support machine-readability such as PDF reports, image files (e.g., the Cartographic Atlas) or visualised via interfaces without the option to download (e.g., Senegal Mining Cadastre Map Portal). For these existing data categories, land data providers, in collaboration with the national statistical agency, should initiate work to provide:

- **Spatial data in non-proprietary and open GIS ready formats**
 - Spatial data visualised in map interfaces or reports should be provided in addition to the data visualisation or report
 - Include boundary files used to delineate administrative units
 - Provide the data in GIS-ready formats (e.g., XML-based formats, JSON-based formats, and shapefiles)
- **Metadata and documentation for all available digital data**
 - Minimal metadata and documentation for existing data, visualisations, and reports would provide a dramatic improvement in accessibility for audiences
 - This includes formal names of data sources, names of data stewards and points of contact (the responsible ministerial/departmental units)
 - Documentation on data collection and processing methods, and dictionaries containing variable definitions, should be provided where possible.

It is possible to identify at least some existing land data that could be made more open with limited technical interventions, rather than initially embarking on new data collection initiatives. Land development plans and bibliographic data such as legal, policy and institutional data was generally quite available on the web and available online, but usually not in open formats. It was generally online, accessible and free but not always timely, downloadable or in machine readable formats. Often there was also no metadata or licensing information. With some technical improvements and an appropriate government partner, there is definitely an opportunity to improve the openness of legal, policy and institutional data and information related to land.

We recognise that the available land data and information in Senegal does not capture all, or even the majority of land information, and as such is not comprehensive. However there are numerous existing initiatives related to land titling and agricultural reform that are focussed on improving the collection and completeness of land data and information.

Our recommendation within the context of the implementation of the Open Up Guide for Land Governance is that the focus going forward should be on making the available data and information more open, rather than collecting more land data and information. This approach will complement existing land administration improvement efforts without duplicating efforts and consuming already limited resources. Making existing land data and information more open can also energise the use of land data and serve as an example and case study for the land sector.

In the long term we recommend that the existing legislative framework for the management and administration of land be reviewed and revised to support the opening up of access to land data and information. This would include a comprehensive review and possible amendments to existing legislation on land to make provision for the access, sharing and dissemination of digital data. Such revisions should also bring the land data and information sector into alignment with the overarching access to information law scheduled to be developed and implemented by 2023.

Using the baseline provided by the SOLI and continuing the Open Up Guide for Land Governance implementation should include drawing up a joint roadmap, not only with the stakeholders already engaged, but with a government department as a partner. This roadmap would set out the categories of data that should be opened up as well as outline the process to achieve this. It could cover some of the following key areas:

- Implementation Plan for the Open Up Guide on at least 1 Key Data type
- Land Data Governance (including data management policies and procedures)
- Participation Strategy for Key Stakeholders
- Open Land Data Capacity Building
- Gaps, Challenges and Best Practices. If feasible, it should contain a short and mid-term action plan for publishing one data set based on the chosen data category (including technical capacities and resources needed).



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