

## Discussion document for LandNNES

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# An overview of South Africa's Land Data Ecosystem for a People Centered Land Governance system

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*The document is termed a 'discussion document' to illicit comments and responses*

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*This document may be quoted or used with acknowledgement of LandNNES and the author*

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# 1 Purpose of the report

This discussion document is intended for internal capacity building within LandNNEs and as a concept note for purposes of making policy.

The document seeks to :

- first provide a broad high level overview to indicate South Africa's land data ecosystem.
- second objective of the document is to promote the development of a land data infrastructure within broad parameters of Open Government Data.
- to make key policy and practical proposals which are aimed at a multi-stakeholder forum which includes government, business or private sector players with interest in land.
- map current and future initiatives and also makes proposals for further research.

This is an initial study, which will by its nature have gaps, but provide a starting point.

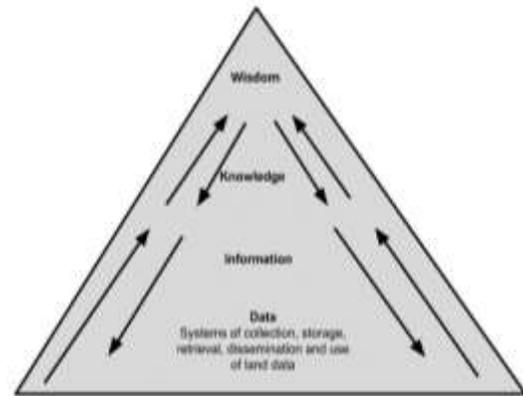
## 2 Some Basic conceptual foundational issues

### 2.1 Concepts

There are a number of somewhat related concepts, which require some clarification, largely because they are interrelated and even have roots in various historical epochs and in different contexts. These are the concepts Open Government and Open Government Data (OGD). While the emphasis of this concept note is on the latter, it is important to understand both and how they relate to each other.

Data "are symbols that represent the properties of objects and events". Ackoffs' (1999).

*This means that data observed and collected has no inherent value until it has had some degree of curation for it to be usable in order to qualify become to be considered to be information. Bernstein (2009) makes use of the Data-Information-Knowledge-Wisdom hierarchy, which was originally developed by R. L. Ackoff in 1988. With this hierarchical model in mind, the term 'Data' is used for the purposes of emphasis, in that information and knowledge is advocated to be part of Open Government Data. The point being that information can be incorrect so having access to the uncurated data and not just information is important. This allows the recipient to form their own conclusions and develop their own information.*



Adapted from Ackoff 1988

The term Open carries with it both technical as well as philosophical connotations. At a technical level, the use of computers creates new opportunities for sharing of data in ways which were impossible before. At a philosophical level the term suggests participation and engagement in a manner which supports democracy. Williams-Elegbe *et al* (2017), moving from a clearly context specific point of view, posits that genuine democracy is a participatory process, and within that places the right of access to information as a necessary right for the purposes of effective participation in governance. What Open Government does is that it makes effective participation in decision making possible.

While the meaning of Open could be context specific, some of the different advocates of Open Government Data attach a precise meanings to it. According to Open Knowledge International<sup>1</sup>, knowledge is open if anyone is free to access, use, modify, and share it. The litmus test could be reduced to three essential elements, namely:- universal participation; availability and access; and reuse and distribution.

The notion of Open Government is about the mission to “make governments more inclusive, responsive and accountable.”<sup>2</sup> In simple terms this is the principle of ‘transparency’. The origins of these movements do not only go way back to ancient history but also have diverse international origins.

*Open (Government) Data is data freely available online for anyone to use and republish for any purpose. ....the most widely used sources come from government and government-supported institutions. This open government data can be used to create both social and economic value. Recently, a number of*

<sup>1</sup> <http://opendefinition.org/od/2.1/en/>

<sup>2</sup> <https://www.opengovpartnership.org/about/about-ogp>

*studies have recognized the business value of Open Data, which may run trillions of dollars annually worldwide. (Gurin et al, p2: 2015)*

For the purposes of clarification, the Open Government and Open Government Data are political movements with deep rooted philosophical undertones, about how governments should conduct themselves in their relationship to citizens.

While it is generally acceptable that the OGD involves the use of technology to provide access to data that is held by government, that on its own does not inherently drive open government but has potential to create conditions which make it possible (Williams-Elegbe *et al*; 2017). Given that OGD is a subset of open data, not all open data are necessarily generated by government.

*Governments around the world are opening up the data they collect in many areas as a new kind of public resource. They are finding that this Open Data can be used to identify social and economic trends, improve public services, build trust in government, and promote economic growth. Governments, business, foundations, NGOs, and academic institutions have developed programs to put Open Data to use, and many have focused on its potential to support international development. The World Bank has developed a methodology to help governments around the world assess and build their Open Data programs. (Gurin et al, p2: 2015)*

A core principle of the real meaning of Open is **interoperability**, which “denotes the ability of diverse systems and organizations to work together (inter-operate)”.<sup>3</sup> Interoperation, over and above being a principle it is also one of the technical requirement of OGD (William-Elegbe, 2017)

## 2.2 A brief history of the foundations

Taubere, J (2014) traces the legal history of Open Government Data as far back as the 6th century BC when Athens started a process of codification of its law from oral tradition. This definitely predates the birth of computers and the World Wide Web. He identifies the origins of the modern Open Government Data movement in what he considers to be distinct origins, which were founded in “Web 2.0, political campaigns, and innovations inside of municipal governments.” This is in line with Yu *et al* (2012) characterization of modern concept of OGD as a recent vintage.

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<sup>3</sup> <http://opendatahandbook.org/guide/en/what-is-open-data/>

Contrary to popular belief, Taubere (2014) clarifies that the history of these movements was not a creation of the Western World, conceding that modern Open Government and Open Data also draw heavily from the 17th century China, more than any Western tradition of the time. Citing Jean Baptiste du Halde wrote about “the Chinese empire in the early 1700s: Anders Schönberg, who in the early 1760s called for the free publication of government documents, decisions, and voting records.” It is from these humble beginnings that the early notions of access to government information arose.

Taubere (2014; citing Hawke 2011) suggests that the law codification process was not originally implemented with the idea of a participatory government in mind or democratization project, but as part of a reactionary agenda of maintaining the social structure, within a changing social context which was characterized by high population growth and new wealth. In essence the codification process was fundamentally part of a project which was intended to bolster “the needs of the elites”.

Taubere, (2014) fast forwards the history, and identifies signs of the growth of the movement in colonial America during the early 1700s (approximately the first fifty years or so). In this context codification arose as a result of perceptions of government confusion about which laws were in place where and which laws were not applicable. The confusion apparently had negative consequences to how the economy was managed at the time. During this period the assembly of Pennsylvania started publishing its acts and laws twice a week, while Massachusetts began publishing its law journals around 1715. While the driving behind these reforms may have also have been driven by elitist interest, as was the case in Athens, there is evidence that the general public started to take advantage of the opportunity of Open Government in ways that had previously not been possible. Private citizens could confront erratic government officials with copies of legislation (Ohlson, 1992).

Fast-forwarding history, these movements culminated in the Kingdom of Sweden, making access to government information a Constitutional right, in 1766, alongside a drive of dissemination of government information (Taubere, 2014). These humble beginnings of open government have resulted in waves of transformation in how governments managed data and information.

The aftermath of the second World War left federal American governments in a state of opacity, which was a response to fear of spies, with much pressure for openness mounting during the 1945-1955 decade, primarily from the media (Yu, *et al*, 2012). Since then the notion of Open Government has increasingly been used in a manner that is synonymous to previously undisclosed information.

## 2.3 Current trends and principles

As a manifestation of the evolution of these movements, modern history has witnessed the mushrooming of a number of international Non Profit entities and multilateral institution which collectively advocated for slightly different aspirational aspects aimed at governments. Among them are [Open Knowledge International](#), [Sunlight Foundation](#), Open Government Partnership ([OGP](#)) etc. The various NPCs put a lot of energy and effort in different elements such as conceptual clarification of the deal, policy advocacy to practical guidelines for implementation. [Open Knowledge International](#) a global non-profit organization has a mission of realizing the ideal of open data for society, by supporting organs of civil society in accessing, using data in the process of taking action in tackling problems of society.<sup>4</sup>

International multilateral institutions such as the United Nations and the World Bank have also made their stance known with respect to Open Government Data. The [post-2015 United Nations Development Goals](#)<sup>5</sup> report acknowledges the potential role of Open Government Data and development. The report identifies four key potential benefits of Open Government Data for developing countries. Fostering economic development and job creation; improvement of efficiency, effectiveness and coverage of public services; increase in transparency, accountability, and citizen participation; and facilitation of better information-sharing within government. A study undertaken by the Open Data Institute, demonstrates that Open Data can help countries towards achieving many of the objectives outlined in the [Millennium Development Goals](#) and the [draft Sustainable Development Goals](#) (Gurin et al, p9: 2015).

What are the principles that underpin the Open Government Data movements? Though acknowledging or questioning the universal application of Open Data principles, Taubere (2014) lists them as follows;

*Government data shall be considered open if the data are made public in a way that complies with the principles below:*

*1. Data Must Be **Complete** All public data are made available. Data are electronically stored information or recordings, including but not limited to documents, databases, transcripts, and audio/visual recordings. Public data are data that are not subject to valid privacy, security or privilege limitations, as governed by other statutes.*

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<sup>4</sup> <https://okfn.org/about/> ; also see <https://okfn.org/>

<sup>5</sup> See Report of the Open Working Group of the General Assembly on Sustainable Development Goals <https://sustainabledevelopment.un.org/content/documents/1579SDGs%20Proposal.pdf>

- II. Data Must Be **Primary** Data are published as collected at the source, with the finest possible level of granularity, not in aggregate or modified forms.*
- III. Data Must Be **Timely** Data are made available as quickly as necessary to preserve the value of the data.*
- IV. Data Must Be **Accessible** Data are available to the widest range of users for the widest range of purposes.*
- V. Data Must Be **Machine Readable** Data are reasonably structured to allow automated processing of it.*
- VI. Access Must Be **Non-Discriminatory** Data are available to anyone, with no requirement of registration.*
- VII. Data Formats Must Be **Non-Proprietary** Data are available in a format over which no entity has exclusive control.*
- VIII. Data Must Be **License-free** Data are not subject to any copyright, patent, trademark or trade secret regulation. Reasonable privacy, security and privilege restrictions may be allowed as governed by other statutes.*

Notwithstanding all the aspirational ideals of Open Government Data, it should be clear that not all government data can be made open. It is an accepted principle that some personal data which has specific information about specific individuals may not qualify as open data. In a similar vein some data which may contravene specific security laws of a country may also fall outside of the open data ambit. Having said that it is generally accepted that government should be open by default, and be classified when there are reasons.

At a regional policy level some African countries are seen to be in the forefront of Open Government, at least in theory. The Right2Info.org Website lists 59 countries have entrenched the “right” to “information” or “documents,” in their respective national Constitutions of which “16 in Africa (Burkina Faso, Cameroon, Democratic Republic of Congo, Egypt, Eritrea, Ghana, Guinea Bissau, Kenya, Madagascar, Malawi, Morocco, Mozambique, Seychelles, South Africa, Tanzania, and Uganda).<sup>6</sup>

Some countries in Africa are have entrenched aspirations of Open Government in their Constitutions. The Constitutions of both Kenya and that of South Africa have entrenched the right of access to “any information that is held by another person and that is required for the exercise or protection of any rights” (South Africa) or “for the exercise or protection of any

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<sup>6</sup> <https://www.right2info.org/constitutional-protections>

right or fundamental freedom” (Kenya). At least five constitutions – of Kenya, Panama, Poland, Serbia and South Africa – expressly extend the right to information to state owned enterprises and/or private entities that exercise public functions as well as to public authorities.

South Africa<sup>7</sup> is also among the initial 8 founding members<sup>8</sup> of the Open Government Partnership (OGP) in an initiative that was formed in 2011 with a view to providing an international platform for domestic reformers “committed to making their governments more open, accountable, and responsive to citizens.” To be eligible for membership countries should endorse the Open Government Declaration which was agreed to by 75 participating countries.

Having said that, it is important to note that commitment to Open Government is a different matter to a commitment to opening up of government data. The advocates of Open Government Data view opening up of government data as one of the strategies of to the bigger agenda of open government.

Within the wider context of international trends, it is important understand how South Africa fares on the Open Government Data agenda, with specific reference to land. The HLP review proposes transparency, accountability mechanisms and governance measures (SA Parliament, p32 - 40, 2017). These are also emphasized as principles that should be built into the proposed Land Reform Framework Act. This is an issue which cuts across land reform programs, and is not limited to restitution.

## 3 South Africa’s data eco system

### 3.1 The legal and policy environment

The preamble, of the SA Constitution, refers to South Africa as “open and democratic society”, committed to values of open government, repeatedly making reference to South Africa as an “open society” in s36(1), s39(1) (a), s59(2), 72(2) and s118(2). Section 32(1) of the Constitution, reads;

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<sup>7</sup> South Africa’s participation in this body requires further thinking to assess whether it is meaningful or not. An initial scan suggests that SA has not made any plans relating to land data.

<sup>8</sup> The founding countries of this multilateral partnership are South Africa, Brazil, Indonesia, Mexico, Norway, the Philippines, the UK and the USA. (DPTC; 2016)

*Every person has the right of access to all information held by the state or any of its organs in any sphere of government in so far as that information is required for the exercise or protection of any of their rights.*

Chapter 10 of the Constitution of the Republic of South Africa deals with matters of public administration. Section 195(1) (f) and (g) commits to a public administration that is underpinned by a certain set of basic values,

*(f) Public administration must be accountable.*

*(g) Transparency must be fostered by providing the public with timely, accessible and accurate information.*

The drafters of the South African Constitution clearly made a distinction between a commitment to Open Government and to Open Government Data. It is also important to note that these are different, albeit possibly linked, constitutional imperatives. There is no doubt that s195(1)(f) and (g) commit South Africa to Open Government and Open Government data, respectively. It is the latter 195(1)(g) which is subject of this concept note. Notwithstanding that the Constitution is the supreme law of the land, South Africa has made very little progress in translating this important principle into reality, with respect to land.

In a direct response to s(32) the Promotion of Access to Information Act 2000 (PAIA) was passed into law. This Act was designed to bring to life one of the rights, the right of access to information that is held by the State or by a private person. The Act goes beyond the three spheres of government in scope, and enjoins state owned enterprises such as Eskom<sup>9</sup> and others. to comply with the provisions of the Act.

While PAIA represents a clear break with the past, it still places a requirement for one to request the information through a formality of submitting an application. For this reason, PAIA does not in any way respond to the commitment to Open Government Data entrenched in s195(1)(g). Secondly, PAIA does not make data open by default, but makes data available through a process of application.

The National Development Plan(2011) (NDP) explicitly calls for "open data" to be made available, without request, which in contrast to the requirements of PAIA, which makes it mandatory to request. Notwithstanding all this, the NDP (2011) takes a dim view of PAIA, and points out,

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<sup>9</sup> [http://www.eskom.co.za/OurCompany/PAIA/Pages/Promotion\\_Of\\_Access\\_To\\_Information.aspx](http://www.eskom.co.za/OurCompany/PAIA/Pages/Promotion_Of_Access_To_Information.aspx)

*In practice, request for information are routinely ignored, despite the existence of the Promotion to Access to Information Act, which aims to give effect to this section. There is endemic lack of compliance.*

The NDP is highly critical of the current conduct of government officials in making data available to the public.

South Africa is not blind to the basic infrastructural and technical requirements towards achievement of Open Government and Open Government Data. The National ICT Policy White Paper (p1: 2016) promises,

*everyone in South Africa, regardless of who they are, where they live or their socio-economic status, can improve the quality of their lives through accessing the benefits of participating in the digital society.*

One of the policy objectives embedded in this White Paper is a commitment to provision of a framework for implementing government's commitment to Open Government and Open Government Data. Among other policy objectives in this policy is that of extension of national broadband infrastructure, which is an essential, though not sufficient element in the process.

Figure 2 depicts a picture taken by the author in East London, Cambridge. While there is visible evidence that optic fiber is being rolled out, without Open Data it is not possible to know with certainty what the progress is and when conclusion is envisaged.



Through its participation in the Open Government Network South Africa has committed to developing an open data policy framework and action plans.

In order to ensure effective implementation of both Open Government and Open Government the correct legal, technical and infrastructural environment should be progressively be put in place (Williams-Egebe et al, 2017). What this implies is that a range of policies and statute should be put in place with a clear view to support the underlying technical and infrastructural environment. There is no point in putting in place the appropriate infrastructure if it is not supported by an overarching legislative environment. While the post-apartheid South Africa may have done relatively well in entrenching Open Government in various laws, there is doubt if government has put in place the requisite legal and policy instruments to support the OGD agenda.

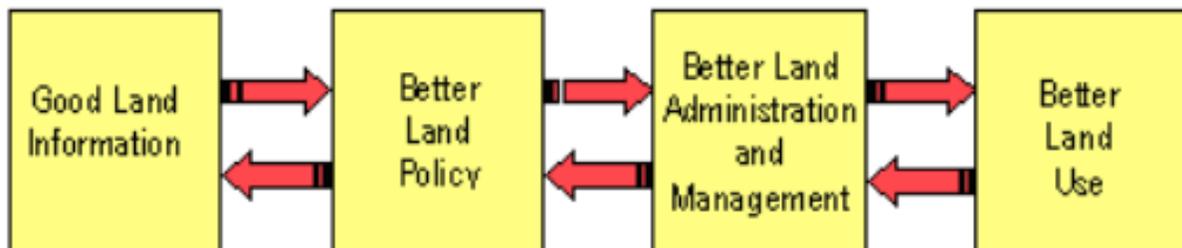
### 3.2 Open Government Data and Land Governance in SA

The policy imperative towards Open Government Data is a transversal matter, which cuts across not only all spheres of government, but across line function departments. Notwithstanding that, the policy thrust of Open Government Data, for the purposes of this concept note, is specifically considered in relation to land governance and land administration.

As outlined in the LandNNES discussion document on a Conceptual framework for Land Administration in South Africa (Kingwill, 2019), “ Land Information is the very core and foundation of Land Administration.

The foundation of all Land Administration functions is its data management system, or what was previously known as the Land Information System (LIS), and a key subset of any country’s LIS is its Land Tenure Information System (LTIS). “

**Figure 2 Land Information as basis for improved Land Policy, Administration, Management and Use**



Source: FIG Publication No 21 The Bathurst Declaration for Sustainable Development

“According to Williamson and Ting, until the mid-1980s most conceptual understanding of Land Administration focused on individual cadastral and land registration activities. (Williamson and Ting 2001). There is still a tendency in South Africa to remain fixated on that definition. Since then, the role of cadastral systems and land information was starting to be better understood in the broader requirements of Land Administration. There is still a focus on cadastral systems, often related to surveying and mapping and land registration, but over time the role of Land Administration has broadened to include land use planning, and has become more geared to land markets, for which valuation systems became more market-oriented. At the same time there has been a growing recognition of the need for land administration systems to address sustainable development priorities

The following developments and pressures contributed to the evolution of conventional cadastres from single to multi-purpose cadastres, and the latter now embrace digital systems, with increasing possibilities to use open source GIS for developing geo-referenced records for unsurveyed land, and open data systems of information.

- Rapid urbanisation and servicing needs
- Widening economic inequity and an increase in poverty and food shortages
- Land markets, commoditization of land
- Changes in land values and valuation criteria
- Land distribution and land reform
- Environmental degradation
- Increased Infrastructure development
- The need to adapt traditional geo-referencing methods to new technologies
- The changing role of government in society
- The economic and social challenges associated with increasing globalisation

All these changes require more systematic, inter-related and co-ordinated land information management systems that can cope with multiple purposes. “(Kingwill, LandNNEs, 2019)

A scan of post 1996 legislation in South Africa indicates that the country does not have a single framework law which ticks the s195(1)(g) box of the Constitution. The author examined 18 land administration laws which are considered to be the mainstay of South Africa’s land governance and land administration system<sup>10</sup>. While many of these laws tick the s195(1)(g) principles of transparency, and accountability, not a single one of these laws ticks the s195(1)(g) box of the Constitution. Two land Bills currently in the parliamentary process cue, the Expropriation Bill 2016 Electronic Deeds Registration Bill 2017 also failed to tick the ss195(1)(g).<sup>11</sup>

It is important to understand South Africa within the context of a society in transition on a number of levels. The political transition from apartheid to a democratic dispensation is just but one layer of those transitions, and comes with it continuities and discontinuities in governance. With the transitions come shifts in ethos from a closed government to an open

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<sup>10</sup> Restitution of land rights Act 22 of 1994; Development Facilitation Act 67 of 1995 (DFA); Land Reform Labor Tenants Act 3 of 1996; Interim Protection of Informal Rights Act 31 of 1996; Communal Property Associations Act 28 of 1996; Extension of Tenure Security Act 36 62 Of 1997; Housing Act 107 of 1997; Water services Act 108 Of 1997; Prevention of Illegal Eviction from and Unlawful Occupation of Land Act 19 of 1998 (PIE Act); National Water Act 36 of 1998; National Heritage resources Act 25 of 1999; Promotion of Administrative Justice Act 3 of 2000; Mineral and Petroleum Resources Development Act 28 of 2002; Local Government Municipal Systems Act 32 of 2000; Local Government: Municipal Property Rates Act No. 6 of 2004; Land Reform Property Valuations Act 17 of 2004; Environmental Conservation Act 73 of 1989; Spatial Planning and Land Use Management Act No. 16 of 2014.

<sup>11</sup> At some point it would be useful to look at Open Government Data in relation to the Protection of State Information Act 43 of 2013.

government. One important layer in these transitions is driven by advances in computer technology which is also underpinned by the transition from paper based records to digital records. The next section sheds some light on how the transitions are panning out in reality.

UNESCA has developed a guide of what African countries need to put in place to achieve OG and OGD objectives. Internet Communication Technology is considered to be most cost effective way to implement OG and OGD (William-Elegbe, 2017). The technical requirements for ICT enabled OG and OGD as provided by UNESCA (p7) are;

- a) *Portal development*
- b) *Storage capabilities allowing for big data transfer and storage*
- c) *Machine readability*
- d) *Information infrastructure*
- e) *Interoperability of systems*
- f) *Security and data protection*
- g) *Data quality and validity*

These technical requirements are an indication that OG and OGD require a data ecosystem architecture, which is founded on design, not chaos.

### 3.3 Checking out of hotel secrecy and checking in at hotel transparency and accountability

The transition from a closed government to an open government is not without its challenges at a legal, policy and practical levels. The first part of this section deals with historical (archival) data/information, which is an important source of information about land, and possibly the only source of land information for a section of South Africans. The commitments to openness which are in the Constitution make no distinction between historical data and data generated by the democratic government.

Morrow *et al* (2005) alludes to serious challenges of historical government data and information resources, which are also compounded by complexities of administrative rationalization processes associated with the divided past. This resulted in a transition which was marked by an 'orgy of paper-shredding' (citing Frankel 2001:248). This implies that records were consciously destroyed, which can only be explained as attempts to destroy historical records with information that an official or politician seeks to remove from the public eye.

The specific category of data and or information sets which are of specific interest in this subsection, are land records of black South Africans which is legally archival material, whether it did or did not find its way, for whatever reason, to the archives. Both of these categories of

data or information, whether in or out of archives are subject of the National Archives of South Africa Act, 1996 43 of 1996, which is still law. In addition to the overarching piece of legislation, each province has created its own provincial Archives Act, establishing provincial archives for certain categories of information.

*NASA was established in 1997 in terms of the National Archives Act of South Africa. Placed under the Department of Arts, Culture, Science and Technology (DACST) – and, recently, under the now-separated Department of Arts and Culture (DAC) – its public records mandate covers all governmental bodies at central level, including statutory bodies. (Morrow et al, p 317; 2005)*

The data sets in this category includes all land data or records emanating from former homelands states. These would include land tax receipts, PTO registers and records, quitrent registers etc. While there were exceptions to the norm, many of these records were ordinarily under the custodian ship of Native Commissioners (magistrates).

In the Eastern Cape Province (specifically with reference former Ciskei and Transkei) during the transition to democracy, the land registers and records of PTO and quitrent, which used to be stored in the magistrates offices were moved to the then Department of Agriculture (Manona,2012). The relocation of files was part of the organizational changes which were part of the transition, with magistrate's offices no longer having any role in land administration as was previously the case. What is strange is that the files were not handed over to the then Department of Land Affairs, which was the competent authority. In some cases the Department of Agriculture did not have the requisite space for these files. In the then Herschel district (now part of Senqu Municipality) some officials of the Department of Agriculture in collusion with traditional leaders even put an embargo on access to land records, to the general public. This embargo is used to prevent any legal challenges to illegal land sales associated arbitrary deprivations, which were a regular occurrence. The DLA never provided any leadership in this regard.

The whole system behind the National Archives of South Africa (NASA) was founded on an ethos that is different from that of Open Data. Firstly the archives logic (in current form) is founded on an ethos of hiding data and opening it up after a period that is stipulated in statute, while the philosophy behind Open Data is about currency of data. Another fundamental difference is that the archival system was founded and anchored on a government that was based on paper, whereas modern day government is founded on computer-based technologies.

Unless government takes some steps to protect these land records (in and out of the archives), the only records that provide evidence to land rights of black people, stand to be destroyed.

*Archives are the incomplete, partial, and often deliberately or unintentionally misleading records of this history, always reflecting the limitations of the environment in which they were accumulated. Their definition is potentially very wide. ....Archival collections, the argument goes, are, in themselves, constructions of systems of power, never neutral, always contested, and sometimes tendentious (Morrow et al, p316: 2005).*

While one acknowledges and appreciates the value of archives, the whole system needs to be reconfigured, because it is out of step with time.

*Offline data is very different: They gather dust in filing cabinets, often disorganized and disregarded. An obscure bit of information remains apart from the handful of people who might really benefit from knowing it because it would cost too much to search, sort, or reorganize. Offline data, though available in principle, is physically and psychologically heavy, encumbered by brick and mortar logistics, and tucked away in rooms with limited opening hours. Offline data is inert. (Yu et al p207; 2012)*

The archives statutory system is out of step not only with the Constitutional ethos, but with the digital age. One aspects to demonstrate that is that by purely by focusing on the time lag between the time of the production of the record and the time when it becomes available for archiving is by and of its own a systematic covering up of the truth and facts, and not in line with the new ethos of Open Government Data (in s195(1)(g), where currency is of paramount importance. Put differently, the Constitutionality of this Act is in question. What this is demonstrating is that there is lack of calibration between old order statutes with the Constitution.

The pathetic situation manifesting around the land records of black South Africans crept through into post 1994 land data management practices<sup>12</sup>. At set up stage government collects a lot of personal details pertaining to members of Communal Property Association, guided by regulations. This data is considered to be part of the formal requirement for registration of a CPA. It has been practice to keep this data in hard copy files which were ordinarily kept at the offices of the district offices DRDLR. In some cases the file would be photocopied and a copy handed over to the Provincial Office. The practice of keeping hard copies resulted in storage space challenges within both district and provincial offices.

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<sup>12</sup> Interview with a DD of the Department of Rural Development, 9 January 2019.

Experience from a number of cases in the Eastern Cape suggests that important land records pertaining to people in communal areas who were the primary subject of IPILRA were also falling into an administration crack. Some of the people who were protected in terms of IPILRA who approached the District Land Reform offices with complaints of illegal deprivations in contravention of IPILRA never got far in getting redress, because the then DLA, and now Department of Rural Development and Land Reform, lacked the administrative capacity and mechanisms for handling the complaints. One probable explanation for this situation is that the IPILRA, never had regulations as envisaged in the Act, which created a hurdle for how the protections will be effected. The DRDLR hitherto did not have administrative systems for managing these rights, which were not legally visible. This situation was not made any easier by the fact IPILRA was originally intended as a temporary statute which was meant to be replaced by a permanent statute at a later stage.

In the Herchel district, of the Eastern Cape, many of the victims of the arbitrary deprivations do report to the local police station, where they find a hurdle, in that police simply do not know how to handle such complaints. Where police have managed to get some of the cases to the magistrate's court, the courts were mostly unable to prosecute because the 'informal land rights' were not legally visible.

Elaborating the example regarding the poor records system, which are a part of IPILRA processes, have not be immune from the administrative incapacity. As on the day of the community taking its resolution, the official responsible for presiding over the community resolution carries paperwork to site and drafts resolution on site. The community resolution would then be signed by all those who were present at the meeting. After the resolution the presiding official issues a certificate, as proof of the resolution. The DRDLR official would ordinarily take the copy to the office and place them in the appropriate file. It is critical to note that a community resolution ordinarily has the status to that of a servitude.

In many cases a 'community resolution' tampers with the configuration of land rights. An example would be a community resolution agreeing to survey and lease a portion of communal land to some entity. In other cases it would be a resolution to adopt a particular planning decision, such as changing of land use. Ignorant of the significance of this record, an official would ordinarily place the community resolution in the file in the office. This practice does not bring the land use change decision to the attention of the competent authority in respect land use, the municipality. The municipality would as a consequence not know of the decision and the land use change. Because the record is placed in a hard copy file, the record of decision is for intent and purposes out of all other state entities.

Around 2004 the DRDLR took a decision to digitize its files and records<sup>13</sup>. The decision is understood to mean migration from paper record to digital record. This decision was to be implemented within the DRDLR including the Restitution Commission. A service provider was commissioned to carry out the exercise. The service provider clearly with no understanding of the contents of the hard copy file, would typically take a whole hard copy file and place on a scanner and run the machine, resulting in a single PDF file. The resulting PDF file would not have any index of what is contained in the electronic file. What this meant is that if the original hard copy file had 1 500 pages, it would result in a PDF with 1 500 pages. If for whatever reason an official needed a small part of the whole, one would have to scroll over each page. If the official wanted something on pages 701 to 702, they would need to scroll page by page to the pages 701. They would then need to print pages 701 and 702.

This situation meant that officials often found it much more cumbersome to work with electronic files, so officials were more often forced to revert back to the hard copy file, which were easier to navigate. When a new record or data was generated, the official would typically store in the hard copy file. This did not only result in a dual records or information management system, but over time discrepancies between the hard copy file and electronic files crept in. Hard copy files contained more up to date record, and there was no system of updating the electronic file put in place.

The records which are the subject of this section, are records pertaining to one of South Africa's most ambitious social engineering programs, land reform. In this context the data or records are just as important as land reform itself, if not more important.

Anecdotal as it may sound the story of Dwesa-Cwebe nature reserve seems to reflect a deep problem pertaining to management of government held land records. The communities of what are commonly known as Dwesa-Cwebe reside outside the borders of the Dwesa-Cwebe Nature Reserve (the Reserve) in the Eastern Cape Province South Africa, straddling across Mbashe River in the Eastern seaboard.<sup>14</sup> Largely owing to the history of land dispossession, these communities lodged a land claim for restitution of land rights in terms of the Restitution of Land Rights Act 22 of 1994 ( the Restitution Act), in land that demarcated as "*the Dwesa-Cwebe Nature Reserves*"<sup>15</sup>, with the Eastern Cape Regional Land Claims Commission. The claim was gazetted on 19 April 1996 and eventually yielded fruit when, on 17 June 2001, a

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<sup>13</sup> Interview with DD of DRDLR held on 9 January 2019.

<sup>14</sup> *Gongqoshe & Others v Minister of Agriculture, Forestry and Fisheries* CASE NO: 3001/13 Para 2

<sup>15</sup> *Gongqoshe and Others v Minister of Agriculture, Forestry and Fisheries and Others v the state & Others* (1340/16 & 287/17) [2018] ZASCA 87 (1 June 2018)

settlement agreement in terms of section 42 D of the Restitution Act was signed by and between the claimant communities and the then Minister of Land Affairs in terms of which the claimed land was to be restored to these claimant communities. In 2018 the Commission contracted a service provider to undertake a claimant verification for the purposes of re-election of a Trust. The reason for this repeat claimant verification exercise is that the Commission had lost both the electronic as well as the hard copies of the original claimant verification report.

Casting the net wider Rens (2013) depicts a bleak picture of sets of complicated layers of old order statutes which are often contradictory or not in line with the Constitution. In order to fully appreciate the full mosaic of rules that have some bearing on Open Government Data in South Africa these laws need to be considered in concert.<sup>16</sup>

*The Copyright Act dates to 1978, long before the Constitution or the rise of Big Data. Which aspects of data are subject to copyright? In what circumstances does copyright over data vest in the State? Is the 1979 delegation of control of state copyright to the Government Printer permissible under the 1996 Constitution especially the provisions governing the powers of provinces and municipalities? How does the legal duty of co-operative government, including information sharing, affect the duty of government offices to share data? Are databases subject to the State Information Technology Agency Act 1998? Should the Ministerial Interoperability Standards specify data formats?*

Rens (2013) is very much clear that interaction of the various different legal and policy instruments creates uncertainty, particularly for government officials. He takes a view that the confusion is not the result of design but an unintended consequence of managing the continuities of the old order within the context of new constitutional dispensation that has a new ethos. Old order laws with varying degrees of impact on OGD remain law of the land, but because of their origins, they have to be read and interpreted wearing the Constitutional spectacles, which is a big challenge. Under such circumstances, legal and policy blind spots are inevitable, and legal calibration is required.

The type of state official required to preside over these different layers of statute and policy requires not only a different ethos but also different skill set. Is the new ethos ingrained or are government officials driven by the remnants of the past in dealing with data?

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<sup>16</sup> This is possibly an area which requires further inquiry.

### 3.4 Deeds registry and Surveyor General

Back in 2011 the World Bank made a damning characterization the South African deeds and land registry system, as unacceptable and fundamentally problematic, because it failed to include the majority of the population (Adlington et al, 2011). Albeit in relation to the then proposed Land Management Commission, the same study identified the need for good reliable information about the land, who occupies it and how it is used.

*Existing systems are reliable, but they are too expensive, too complex and not available at a local level. (Adlington et al, 2011; p1)*

In its current form the DR and SG system was ruled out from a possibility of inclusion of other categories of land information, other than land transactions. The conclusion was contradictory in that, if the system was blind to other forms of tenure, other than freehold, it is inconceivable that the same could be appropriate for recordal of transactions which were invisible to it.

The numbers of conveyancers that would be required to support the same system when applied across the country, when juxtaposed with the cost consideration of making use of their services, pushed the system beyond the reach to the majority of the population (Adlington et al, 2011). The World Bank mooted a decentralized system that is simpler to use and cost effective, including use of aerial photography in combination with modern technology.

Back then, the National Geospatial Information (NGI) had resumed an interdepartmental process of a National Spatial Data Infrastructure (NSDI) as envisaged in the Spatial Data Infrastructure Act (#54 of 2003). The NSDI was viewed as the basis for an inclusive land information system. It is however not possible to evaluate the achievements of the NSDI.

Typically symptomatic of consultants that are parachuted from a different context, the drafters of the World Bank report displayed poor familiarity with implications of the cadaster in an African context. To them assimilation of the rest of the population into the system was at the center of their thought processes.

The report made a recommendation for some form of family title to be included within the framework of the private land ownership concept (Adlington et al, 2011). In a fashion similar to De Soto's theory the proposed family title was viewed as a method for extending security of tenure in communal areas, with the intent to link it to perceived benefits of a market economy.

Critical as the World Bank was of the DR and SG in their current form, it still made proposals which could be summarily explained as tinkering with the edges of the system. It is quite apparent that the more changes the World Bank proposed, the more the system had to be kept the same. The report is rather blind to the qualitatively different nature and content of land rights in an African context.

### 3.5 Local government and OGD

Among other objectives the Local Government: Municipal Systems Act, 2000 (Act No.32 of 2000) seeks “to establish a framework for support, monitoring and standard setting by other spheres of government in order to progressively build local government into an efficient, frontline development agency capable of integrating the activities of all spheres of government for the overall social and economic upliftment of communities in harmony with their local natural environment.” The Local Government: Municipal Structures Act, 1998 (Act No.117 of 1998) seeks “to regulate the internal systems” of local government. Notwithstanding the Constitutional imperatives, these statutes do not overtly articulate the imperative for Open Government and Open Data within local government.

The Municipal Barometer “an initiative of South African Local Government Association (SALGA) in partnership with Centre for Municipal Research and Advice (CMRA), Development Bank of Southern Africa (DBSA), South African Cities Network (SACN), Statistics South Africa (StatsSA) and Municipal Demarcation Board (MDB)”<sup>17</sup>, in its founding statement notes that it was established primarily as a result of limited availability of local level data.

It states that the portal;

*was established in response to the following challenges: Limited availability of local level data. ...limited access to data that is currently available; various institutions provide data, however, their activities are often fragmented and uncoordinated; huge costs that municipalities pay to get data.*

This statement reflects a perspective that is municipal-centric, in that the portal seeks to address data needs of municipalities for purposes of improving governance and learning from each other. The municipal-centric nature of the drive does not consider that all other spheres of government also rely on the same data sets, and that municipalities are not the end of the chain. While the rationale for Open Data is evident, this web portal falls short of any commitment to Open Data.

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<sup>17</sup> <http://www.cmra.org.za/content/salga-municipal-barometer>

Albeit in data value chain context<sup>18</sup>, municipalities are not only data consumers but are by far one of the bigger generators of land data, in the first instance.<sup>19</sup> That municipalities are seeing themselves as victims of data poverty is a symptom of the bigger problem of South Africa's data ecosystem. Municipalities are the first point of approval for land transfers, land subdivision, land consolidations, zoning approvals, approval of building plans, removal of restrictive title conditions, approval of township establishments, etc. To the extent that Spatial Planning and Land Use Management Act No 16 of 2013 (SPLUMA) juxtaposed with the wall-to-wall municipal system, which is established in terms of the Local Government Municipal Structures Act 117 of 1998, gives municipalities land use management powers, it means the local state (municipalities severally) is a custodian of all land in South Africa.

The City of Cape Town is the only municipality in South Africa which has taken practical strides at setting up an [Open Data Portal](#). It is an exception to the norm, but this is an important policy move from local government. While the portal has not been evaluated it contains a wide range of data sets, and it generally meets key requirements of Open Government Data. The portal provides a wealth of data and information which is potentially of use to potential investors in the City. Can each municipality have its own portal? Should the country not be moving towards a national Open Data Portal?

Notwithstanding all this, it is still possible for municipalities to be in data poverty. This could be explained in two ways. Municipalities often rely on data that is generated by private sector service providers who are often contracted using state resources. While the data or information generated from these consultancies belongs to municipalities, they lack the infrastructure to store and to keep the data current, as it moves up the value chain. The absence of a national land data infrastructure means that there is no national framework for collection of data resulting in each municipality using its own framework.

While almost all municipalities have a website, these vary in what data they store and provide. The majority of these website tend to rely on statistical data from StatsSA, rather than current data. Most problematic about these websites is missing data or information rather than what they is made available.

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<sup>18</sup> In future it would be beneficial to get land data value chains mapped up, with a view to demonstrate how the system is disintegrating.

<sup>19</sup> This needs to be demonstrated in a separate study which reflects data value chains.

### 3.6 Provincial and national line function Departments and OG

Provincial and national line function departments are both data generators as well as data consumers. While departments would often draw data from each other, each department generates its own land data sets depending on the powers and mandates. The data is stored in fragmented or separate infrastructures (web sites). Each Department ends up with own data set which is often different from others. Important land data and information is very rarely made Open on respective websites.

There is an acknowledgement that gleaning over what is made available to the public is just one part of the picture, but it is rather what is not placed in the public domain that reveals the essence of data policy. Zuiderwijk *et al* (2014) emphasize the importance of examining the types of data that are not publicized when benchmarking open data policies (citing Jaeger, 2007). Further complexity arises because it is not enough to examine high-level strategic open data policy frameworks, because these only depict an incomplete picture. The extent to which these policy frameworks are underpinned by procedural or administrative systems is another. The policies may all be in place but the question is how they are implemented by the state bureaucracy.

The GIS based information systems initiated by different government departments are an important potential resource or building blocks for a reformed land administration system. However, lack of integration, limited accessibility, absence of the people-land relationship data are just some of the challenges associated with these. These systems have different levels of accessibility to the professionals, government officials, public, which would need to be addressed going forward. Some or most of the information in these different systems is important for planning, land use management and decision making.

As id the case in municipal websites (systems) is missing data or information rather than what they is made available. The DRDLR does not have basic data on land reform, land redistributed; land that is subject to land claims; beneficiaries of land reform; state land lease data, etc. The same applies to other land related government departments, providing no data on their very core business.

The big question that needs to be answered is, how can these disparate systems be integrated, without losing their original intention, with a view to provide information that supports land governance and land administration? The important consideration would be how the land-people information is incorporated in such a way that the new integrated system

accommodates the majority of South Africans who are currently off the formal deeds registry systems.

It is common knowledge that the state owns a lot of land which it leases to the public, even if there is not credible data on the exact extent. The next section demonstrates how the data void impacts on the manner in which state land leases are managed in the Eastern Cape Province.

### 3.6.1 Management of state land leases

In a context where a country does not know with certainty what it owns and what it does not own, it undermines the governance of state land. One of the areas that is critical is the state leases land to the public. This is an important national resource which requires a high degree of data openness.

In the Eastern Cape there are broadly two categories of state land which are subject of leases to the public. The first category is state land, mainly agricultural land) which was previously in the hands of one of the former homelands, Ciskei and Transkei. The second category of state land is that of land that was acquired by the state post 1994. The two categories are administered by the Provincial Department and Rural Development and Agrarian Reform (DRDAR) and the DRDLR. The rationale for the differentiation is based on history, it is an issue which perpetuates fragmentation.

The adoption of the State Land Disposal and Lease Policy (SLDLP) in July 2013 – which effectively *extends the period of leasehold prior to ownership to 50 years* (Hall et al, 2017).

*People are not able to access credit as financial institutions require some proof of their right to occupy. As a result, emerging commercial farmers, including those who have capital from other sources, are being stymied in their farming operations. This is due to an inability to secure loans and other sources of support, and to make on-farm improvements, because they do not have valid leases.*

The challenge in this space is poor administration, where those leasing land are not furnished with lease agreements. This is a legitimate and a necessary form of tenure as part of a mix in South Africa.

Given that the lease of land by the state is already part of the country's tenure manue and given that this is likely to be the case going forward. This is also a space which has not been without debate. It is erroneously assumed by many that security of tenure only amounts to ownership, leading to some criticism of the SLDLP. However, there is nothing insecure with the

state leasing land on a range of durations, thus allowing lessors to exit lease to ownership/use at any point when they so require. The lease of land by the state should ideally be an option in a menu of tenure arrangements on offer. State ineptitude in administration of leases is also often conflated with land tenure, which in this case is lease of land by the state. For sure there can be no tenure security without valid lease contracts, but that does not mean lease tenure is inherently insecure.

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*In his consulting capacity the author approached the Provincial Office<sup>20</sup> of the DRDLR on behalf of two (2) black entrepreneurs who wanted to get into pork and beef farming on a substantially big scale, looking at an throughput of approximately +1 000 pigs per month for commercial outlet. The entrepreneurs were specifically looking at land that is within a 20 to 25 kilometer radius from East London for pig farming because they needed source some ingredient food supply from the East London Industrial Development Zone (ELIDZ). The proposed cattle farm was not location sensitive and the applicants would consider land anywhere because was not a key factor. The author explained the he was looking at assisting the entrepreneurs in looking at options (land) that were available to them, as well as the procedures for application. The first response from the official was that the easiest route would be to approach the Provincial Department of Agriculture who may have an idea of vacant sites.<sup>21</sup> I have a list of properties but I cannot say they are vacant or not until a physical verification is done. What did this mean, that the provincial office did not have current data on farms that were potentially available for lease.*

*Dissatisfied with the less than satisfactory response from the provincial office, the author visited the Amathole District Land Reform Office of DRDLR in East London, with the same inquiry about land options and application procedures for lease of commercial farmland.<sup>22</sup> The official explained that all applicants are expected to identify the land that is either for sale or alternatively land that is unused which is owned by the state. Once the land is identified the prospective applicant should verify that the land is indeed owned by the state, and then complete an application form. When asked if the DRDLR has a database of all farms it owns which are either deserted or leases which are about to lapse, the official was at pains to explain that department unfortunately did not have a full and comprehensive reliable register.*

*The prospective farmers on whose behalf the author was acting specifically wanted to lease land preferably from the state. The entrepreneurs were very clear that pig farming would assist their cash flows because of their short life cycle, compared to cattle. The farmers did not see the option of leasing land to have any material effect on their security of tenure and ability to access loans.*

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What this case clearly demonstrates is that the state did not have reliable current data it could use to respond to a land reform inquiry. The absence of such data practically meant that the state could not effectively administer lease applications. The applicant had to carry the burden of not only looking for the land but there is a burden on the applicant to prove that the land s/he was looking for was either not used or deserted. It meant that one needs to have spent enough time observing the land, in order to prove that it was either under or not used. While this case demonstrates the need to fix land administration capacity by the state, this is clearly also a case for Open Data.

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<sup>20</sup> Email sent by author to an official of the DRDLR on 21 Sept 2018.

<sup>21</sup> Response from an official of DRDL EC Provincial office on 26 September 2018

<sup>22</sup> Information provided by an official of DRDLR at Amathole District Office on 13 October 2018

### 3.6.2 Blockchains - the open decentralized system option?

There is no single, rigorous definition of blockchains (Graglia et al, 2018 citing Verge, 2018)<sup>23</sup>. The featuring of blockchains in the international fora such as the World Economic Forum, and the Mobile World in 2017 is a sign of the potency of the technology (Kairos Future, 2017). Sweden is one of the pioneer countries in testing, developing as well as mainstreaming blockchains in their registry system. The Economist has coined blockchains the trust machine which is based on the ability of the technology to create confidence between parties who have mutual trust to collaborate without the involvement of a central authority.<sup>24</sup>

*The blockchain is an even more potent technology. In essence it is a shared, trusted, public ledger that everyone can inspect, but which no single user controls. The participants in a blockchain system collectively keep the ledger up to date: it can be amended only according to strict rules and by general agreement.*

In a typical property transaction the process of getting parties to agree at every stage in the transaction and to record those series of agreements in a manner that is permanent and secure is the biggest challenge (Wong, 2017). This is the whole logic behind blockchain technology.

The blockchain technologies are primarily driven by private sector investments, as a response to a wide range of challenges in the land and property value chains, internationally. Just as a way of demonstration, in the United States transaction costs of in the estate industry make up approximately 10% of the selling price of a property. This state of affairs is heavier in developing economies, transactions reliant on a chain of intermediaries, including estate agents, unreliable government databases, property valuers, conveyancers and notaries. This is just a window into a wider complex array of challenges in property governance systems.

*the digital world --in which our time, our money, and our social relationships are increasingly invested-- must be governed in accordance with the sort of open and democratic values we insist upon in the non-virtual world, then the result will be an environment that is better prepared to accommodate the more radical scenarios of digital value exchange. (Graglia, et al p7; 2018)*

Among the key design features and advantages of blockchain are decentralisation of data repositories, fault tolerance, and virtually tamper proof and security and resilience advantages over traditional transaction and record keeping systems. The case of Haiti is just an example of a situation where an unknown number title deeds and land registry records were destroyed after an earthquake in 2010, largely because of a paper-based registry.

While the jury is in session regarding blockchains in Africa it is not all silent. The series of

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<sup>23</sup> For more on this subject see Adrienne Jeffries, "‘Blockchain’ Is Meaningless," Verge, Mar 7, 2018, <https://www.theverge.com/2018/3/7/17091766/blockchain-bitcoin-ethereum-cryptocurrency-meaning>

<sup>24</sup> <https://www.economist.com/leaders/2015/10/31/the-trust-machine>

conferences that have been held in Africa are only one indication of the extent to which Africa is embracing blockchain technologies,<sup>25</sup> the Bitcoin Africa Conference 2015 at the Atlantic Imbizo Conference and Function Studio at the Waterfront in Cape Town on the 16 – 17 April 2015; the Blockchain and bitcoin Africa Conference 2016 held in Johannesburg on the 3 – 4 March 2016; the Blockchain Africa Conference 2017 held in Johannesburg on 1-3 March 2017; Blockchain Africa Conference 2018 in Johannesburg on 8-9 March 2018. Using arguments of economic inclusion, the government of Uganda has in principle embraced the use blockchain technology as part of its service delivery offering, such as payment of taxes.

The High Level Panel report fleetingly pointed to blockchain technology as an opportunity (RSA Parliament, 2017). There are a number of technical as well as legal aspects of the blockchain ecosystem which have to be considered in considering its future, particularly within the context of a developing countries, which are part of the work in progress considerations. Among them are questions about lack of interoperability of systems and legal recognition (Graglia *et al*, 2018).

A key feature of the technical development of blockchain technology which sets it apart from the anything known hitherto is the decentralized governance model on which it is founded (Graglia, 2018 citing Knight, 2017). While the uptake of the technology is increasing in developed countries, the extent to which this trend will continue into the future is an important consideration, in the context of fundamental questions pertaining to challenges associated with centralized systems, the control of personal data, and the role of big business interests which do not necessarily align with public interest.

The hegemony of big business such as Facebook, Google, etc. in the information economy raises serious questions about the centralized systems and their control over personal data (Graglia *et al*, 2018). This trajectory is behind what is inherently a political movement, which is advocating the decentralization of the internet, with prominent advocates such as Sir Tim Berners-Lee, inventor of the World Wide Web, Vint Cerf<sup>26</sup>, Mozilla Foundation, IBM and Unilever.<sup>27</sup> Blockchain technology poses a real opportunity to turn the tide in the information economy by giving the user some degree of choice of platform. Notwithstanding all, this some scholars are skeptical about the future prevalence of open-decentralized ethos (Graglia *et al*, 2018 citing Shaban, 2017; Knight 2017; Shaban, 2018), the technology is set out to change power relations in the governance of the digital economy.

#### 3.6.2.1 The future of blockchains in SA

There are different opinions about the future of blockchains in developing economies and South Africa is no exception in that regard. The jury is still in session with respect to the experiment by Ghana which has introduced blockchains. Optimists are convinced it might well change the DR and SG office, possibly as part of a mix. There are serious questions and doubts

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<sup>25</sup> <http://blockchainafrica.co/speakers/>

<sup>26</sup> Internet pioneer.

<sup>27</sup> Europe's seventh largest company.

however, with little hope that it will deliver anything for the poor.<sup>28</sup> The Centre for Affordable Housing Finance in Africa is considering a pilot of blockchains in Khayelitsha and have applied for funding to do this. The intention is to do a blockchain land registry on top of the existing one – with no legal status at this stage, just shadowing the existing one to test how it might effectively integrate. Some are rather less optimistic believing that blockchains will in the long term take over registry systems all over the world, but it can't overcome issues about adjudication, and normative pluralism.<sup>29</sup> Part of the challenge is that SA does not yet have synchronized principles for adjudication in respect of customary and family property, synchronized with common law and statutory law regarding planning, property, marriage and succession (inheritance). It is a bit like introducing a high speed train with no tracks (above or below).

The group thinks it is imperative that the entire land administration landscape of South Africa should first undergo a holistic assessment before rushing to any alternative forms of registration, including blockchains. Among those who are less optimistic<sup>30</sup> there is still appreciation of the idea of a registry that is outside of government, and that records transactions between people as and when they want to transact. This view is partly driven by a perception that government is dysfunctional and that any innovation that relies on it is likely to fail. However, there is recognition that, it doesn't solve the problems of what rights and transactions of them should be registered/recorded, what constitutes a legal transaction and who verifies / guarantees the transaction? Some<sup>31</sup> are skeptical about the unclear role of the state in such a system. But does present an opportunity as part of a bunch of possible technologies that could solve some of the governance issues.

Notwithstanding all these questions, Graglia et al (2018) identify seven prerequisites for integration of blockchains into a national registry system. Of the seven South Africa would fail the test of three; absolute accuracy of records; land registries must digitized, and high levels of illiteracy. These would be among some of the issues that would require serious attention.

### 3.7 Call for National data infrastructure/s

A call for countries to establish national data infrastructures approximate about a decade ago, based on an observation that many countries had fragmented land administration systems and lack in coherence (Bennet et al, 2010). With specific reference to South Africa the World Bank identified a need for a national land data infrastructure as far back as 2011 (Adlington et al, 2011). South Africa has hitherto failed to take a national approach to land administration.

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<sup>28</sup> Email from Kecia Rust of the Centre for Affordable Housing dated 05 November 2018.

<sup>29</sup> Email from Rosalie Kingwill a research Associate at PLAAS, dated 6 November 2018.

<sup>30</sup> Email from Donnah Hornby dated 6 November 2018.

<sup>31</sup> Email from Lisa del Grande of LandNNEs, dated 6 November 2018.

One area which has been a glaring a manifestation of this shortcoming is the failure of the country to compile a credible and current national land audit.

The questions about the national land audits loom large in South Africa's data ecosystem deficiencies, and a clear demonstration of system 'interoperability' challenge. The less than satisfactory results of the national land audit suggest that the state does not authoritatively know the extent and location of which land it owns and which it does not own and how much of such land is available for land reform?

At another level these results show that the state is unable to provide an account of what land it has redistributed through the land reform program. The second set of questions that arise from that is, how much of such land has to date been used for land reform purposes, or how much state owned land is currently used to the benefit of land reform and where that land is? For the lack of better answers, there is no state capacity to provide an authoritative and or reliable account in respect of all these questions, despite all the different efforts at constructing land audits by the state.

The Department of Rural development and Land Reform, Department of Human Settlements and Municipalities have been engaged in attempts of compiling land audits, but partly due to absence of a common infrastructure and also due to poor management, there still is no credible national land audit.

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*A hypothetical situation is that, the Department of Mineral & Energy would issue a prospecting license to a third party after due process. In that process it is possible that the municipality concerned would have embarked on rezoning the land for something contrary to mining. It is also highly probable that the DRDLR could have embarked on a process of acquiring the land for land restitution or redistribution or tenure reform purposes. The DME may choose to elect a different form of stakeholder engagement process to the DRDLR. For example the DRDLR would use the IPILRA route while COGTA would have used the traditional leadership hierarchy.*

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### 3.8 The rise of Data Portals and Land Observatories

In the past two decades, alongside all the various experiments with land information management systems, there has been a phenomenon of open data portals and more specifically open land data portals. This is a trend which requires a closer examination, in case it has some potential to bring with some solutions to the wider challenges of land administration systems.

*A data portal is an online collection of data that is freely available to users from a single source or website. The data are arranged into sets based on the content and the portal contains dashboards that provide at-a-glance views of key data*

*indicators, allowing users to determine the different data sets and content of the portal. Data portals are the most common platform for OGD as they provide a single point of entry to all government data, properly arranged, and they usually provide search facilities for ease of use. Williams-Elegbe et al (p12; 2017)*

Subirats *et al* (2018) estimated that there were approximately 2600 diverse open data portals throughout the world today, storing and disseminating various kinds of data sets with some of these focusing on land data. These observatories capture, store and disseminate diverse data sets such as weather, traffic patterns, health data, education data and in some case land data and information. Of relevance to this concept note are those land observatories which focus on land matters. To fully appreciate the structures which are commonly known as land observatories it is important to locate these both in the historical as well as the political context of Open Government (OG) and Open Government Data (OGD) movements which underpins them.

The Land Matrix, an international NPC which supports a decentralization dynamic of observatories at the national level, CIRAD and ILC undertook a study on land observatories in Africa, in Latin America and Asia.<sup>32</sup> At the heart of all these studies the overarching objective was to understand the factors which have resulted in the emergence of these structures, to understand how these structures are anchored institutionally in different contexts, to understand success/ failure factors as well as the role they play in different country contexts (Grislain *et al*, 2018). In the period preceding the study on land observatories in Africa the Land Matrix, had identified 34 land observatories in Asia, 8 in Latin America and Caribbean and 22 in Africa.<sup>33</sup> Based on a non-exhaustive original list of 22 land observatories, the Land Matrix initiated a comparative study of 9 land observatories in Africa, (Burkina Faso, Cameroon, Madagascar, Mali (1994/1998), Senegal (one ongoing and one in project), South Africa (SALO), Chad and Uganda. The data from the comparative study undertaken by Land Matrix is summarized below.<sup>34</sup>

The original Land Matrix study considered nine dimensions (emergence context, institutional positioning, financing method, geographical scale of activities, topics covered, activities carried out, method of collecting land data, tool for disseminating the analyzes produced and the objectives of the activities carried out) structuring the observatories. From the original study

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<sup>32</sup> The report on this study on land observatories in Africa was presented and outcomes discussed at a seminar convened by Land Matrix, held Dakar, Senegal on 8-9 November 2018.

<sup>33</sup> Xcell spreadsheet provided by Quentin Grislain via email on 3 December 2018.

<sup>34</sup> Much of the data is lifted from the report and the analysis is framed slightly differently.

the current concepts note only focuses on four dimensions, factors of emergence, institutional anchoring, what land observatories do and how they are funded.

### 3.8.1 Factors of emergence of Land Observatories in Africa

In all the countries studied, the emergence or establishment of land observatories in Africa is a result of interplay of internal and external factors. The two key internal pulling factors is the national land contexts and the need for monitoring and evaluation of national land processes, by either donors, policy makers and or civil society. The common feature of the national contexts is characterized by significant changes in the land sector, including land reform or conflict, which leads to a need to understand and opening up of debate and advocacy. The combination of all of these factors raised consciousness around policy matters at the center of which was the sovereignty of the South. External factors are a combination of funding availability and international NGOs.

The surge in the number of land observatories or structures that had an interest in monitoring developments pertaining to land in Africa, arises on the back of major land reform initiatives in different countries, such as the phenomenon of large-scale land acquisitions, state led land reform engineering programs, the 2008-2009 financial and fuel/energy crisis (Grislain *et al*, 2018 citing Burnod and Tonneau, 2013). The surge or proliferation of land observatories in developing countries raises a number of questions. Countries such a Cameroon, Senegal have more than one land observatory which focus on different aspects.

The land observatory in Madagascar was created in February 2007. The creation of the observatory was a response to the vast land reform adopted by the government in 2005. The idea of establishment of a land observatory In Mali arose from a study carried out in 1991, which coincidentally overlaps with a political tipping point in which the Moussa Traoré regime was overthrown. The land observatory materialized in 1994 and was abandoned in 1998.

The now dormant South African Land Observatory was launched in 2014, initiated by the University of Pretoria. Various issues affected its successful operations including insufficient buy in from the public sector and sharing of information. The land observatory in Cameroon is currently at establishment phase with the idea emanating from civil society organizations as well as from the International Land Coalition (ILC).

The National Land Governance Observatory in Senegal was established in 2015, inspired by a range of civil society formations (peasant organizations, associations, NGOs). The inception of the idea of establishment of a land observatory in Uganda was discussed for the first time in 2015 between LANDnet Uganda<sup>4</sup>, Land Matrix Africa and civil society formations. Much of

internal push factors included the phenomenon of large scale land acquisitions which took prominence in 2008. Part of the motivation was the need to develop an understanding of the phenomenon as preparation for a response. Land observatory of Uganda collects and disseminates (land monitoring role) data including planned and failed large-scale land acquisitions in the country.

### 3.8.2 Institutional anchoring in Africa

The study made a lackluster attempt at finding a definition for a land observatory. The defining feature was that it is a structure that is set up for the purposes of collecting, storing, managing, analysis and reporting of land data, information and new knowledge.

While the study found diverse types of land observatories in Africa, it identified three land observatory typologies, based on the institutional anchoring, namely :- observatories that are state appendages or somewhat attached to the state; land observatories that are powered by civil society formations; and multi-stakeholder observatories, with each typology encumbered by inherent pros and cons.

State driven land observatories are established through the primary initiative of the state. These land observatories have the advantage of state resources and proximity to decision making processes. The major downsides of this typology is not only in respect of public image of such observatories, real or perceptions of state influence in the choice of themes. The land observatory in Madagascar and Mali fit in this typology, with the latter created by decree and attached to the Ministry in charge of land. It is thus neither a public organization nor an informal cell nor a mere technical service. The land observatory in Mali was umbilically linked to the Ministry of Rural Development and Environment (then Ministry of Agriculture, Livestock and Environment) and then Central Fund for Economic Cooperation, only to collapse in 1998 due to drying up of single source of funding.

The land observatory in Chad was established by decree on April 24, 2001 and it is physically located within the National Institute of Human Sciences of the University of N'Djamena, under the direct supervision of the Ministry of Higher Education, Research and Innovation (MESRI). Since 2011, its director has been appointed by decree which brings the structure under direct control of the ministry. This model or typology brings with it advantages of recognition by the State and prospects for financial sustainability in time.

Civil society driven land observatories, have been found to be tilted in favor of a few civil society formations which have influential networks and legitimacy credits, which inevitably result in image challenges. These land observatories are generally characterized by an ethos of

activism. National Observatory of Land Governance in Senegal plays a watchdog or monitoring role of land governance and land allocations (including via its Facebook account). It facilitates awareness and mobilization of stakeholders. The NGO is a committed and militant organization acting as a whistleblower to influence the public debate. At present, the observatory does not produce thematic studies and does not carry out field missions. In theory the observatory is supposed to be civil society driven, reflection and action on the land in Senegal, but in practice it is the CNCR which controls the observatory.

Multi Stakeholder observatories, on the other hand, that are theoretically inclusive of the state (national, regional and local), civil society. In this typology the unequal involvement and contribution often results in an imbalance, which is not in kilter with the conception of multi-stakeholder entity. While it could be considered as a multistakeholder land observatory, the then South African Land Observatory does not fit neatly in this typology, in that was single handedly established by the University of Pretoria. It is for this reason not a civil society driven initiative.

### 3.8.3 Financing of land observatories in Africa

Funding sources of land observatories have been found to change over time -Single source Land observatories in Madagascar, Mali and Chad have a single funding source, from the state. The land observatory in Mali collapsed in 1998 due to drying up of single source of funding from the state. The land observatory in Chad, while directly under government control, it was initially funded by external donors (World Bank) for a temporary duration, from 2006 to 2009, from which point it drew 100% of its funding from the state.

The most interesting funding model is that of the land observatory of Burkina Faso which is funded from a diverse funding stream, which includes its (i) internal financial resources such as membership fees (civil society, customary chiefdom, Commune representatives, and land experts) and annual subscriptions and (ii) the financial support of donor partners including USAID and IFAD.

The Land Observatory of Senegal is funded by a couple international donors (the Delegation of the European Union and the Rosa Foundation Luxemburg). So far (July 2018), the Land Matrix financially supports the observatory while LANDnet Uganda provides the majority of human resources. These land observatories are considered to be reliant on donor funding. The South African Land Observatory, during its life time, while anchored at the University of Pretoria, was 100% reliant on donor partner funding. SALO was originally conceived with the idea that government would make available some financial support, which never materialized. From a

financial sustainability point of view, the demise of SALO can be explained in two ways. The first is drying up of single source donor funding and the second is the killer assumption that the state would come on board, which never materialized.

### 3.8.4 What land observatories do in Africa

Madagascar observatory promotes the sharing of information and information analyses, produces studies (punctual and regular, qualitative and quantitative) on various themes (large-scale land acquisitions, young farmers' access to land, land tenure security), organizes debates and provides assistance to the decision for the Ministry and more broadly for government institutions. Created with the initial objective of analyzing the progress of the reform, the observatory gradually leaves a limited monitoring-evaluation function to become a veritable observatory of generalist land. The thematic studies are conducted directly by the members of the team or delegate, via tender, to service providers.

The main objective of the Land observatory of Chad is to contribute to improving the knowledge and understanding of land issues with a view to fostering relevant land policy design in Chad. Regarding the activities of the observatory, apart from the publication in 2010 of a scientific journal "Cahier du Foncier au Tchad", no study or publication has been identified on the internet and in social networks.

The mission of the land observatory Burkina Faso is to monitor the implementation of land reforms initiated by the State of Burkina Faso for a decade. In addition, the main themes addressed by the observatory are; the formalization of land rights, knowledge of land policies and laws, land conflicts and spatial planning instruments. The observatory carries out missions in the field and benefits from the network of public agents who are at the disposal of the communes to collect land data. Thus, given the diversity of the observatory's missions, the ONF-BF is not just a monitoring and evaluation structure for land policies but a tool for collecting, producing and analyzing information.

The National Land Observatory of Senegal's overall objective is to contribute to a better participation of non-state actors in the political dialogue or discourse on the state driven land reform that had been launched from 2012 by the Presidency of the Republic. Largely emanating from the civil society origins, the NGO is committed activist and whistleblower role, acting as a catalyst to influence the public debate.

From its inception the South African Land Observatory (SALO) was largely reliant on collection, storage and dissemination data and information that is generated from other multiple public and private sources. While it functioned SALO did not undertake any independent analysis of

data and did not engage in any policy matters. The observatory had a bias towards rural agricultural land which is covered by the national cadaster. For much of its life a lot of effort was spent negotiating contracts to access data from various government sources, with relatively little success.

Collection, storage, analysis of land data is at the heart of what land observatories do. However these structures differ in emphasis. Some are more activist than others, while all generally perform some monitoring role.

Land observatories do present a peculiar opportunity in Africa, that of hosting diverse land data sets including land tenure data. These structure could be positioned in a manner which allows them to evolve in ways which are suited to the different national situations.

### 3.8.5 Glaring Concerns for Land Governance

In the context of SA the democratic dispensation inherited a data ecosystem which was designed to be purposefully hierarchical, racially and class exclusionary. South Africa lacks a national land data infrastructure, but its data ecosystem is characterized by a proliferation of fragmented data infrastructures, which in many respects are largely reflective of the country's past divides. Logic then follows that the centre of transformation of SA's data ecosystem should aspirationally be about breaking race and class barriers to land data, in particular.

Bennett *et al*, (p208; 2012 citing Enermak *et al*, 2005) warn that:

*Without a national land administration infrastructure a nation will struggle to be governed holistically.*

If Bennett *et al*'s (2012) call for a national data infrastructure is anything to go by, the question of interoperability of machines and software arises. While no comprehensive study to test 'interoperability' of various land data systems in South Africa, it does not require rocket science to see vividly that horizontal and vertical 'interoperability of land data is a major challenge. The unending story of questionable and unreliable national land audits suggests that the data systems with DRDLR are challenged. Without reference to what implications it has for the constitutional powers and functions of local government, it is also not difficult to make an unwavering conclusion that land data systems within and between municipalities have interoperability challenge, let alone currency of data. What is very clear in the SA context is that line departments do ordinarily generate land data related to their own constitutional mandate.

Interoperability of systems in the country is a serious concern. This is an issue which needs further research with the purpose of designing a national data infrastructure for South Africa. What data sets data generators collect and store would require some level of central regulation, supported by legislative reforms.

The most critical weakness in relation to the content of these multiple websites, is what is missing from them, rather than what they carry. For example the Department of Minerals and Energy absence of data on prospecting licenses applications, approved prospecting permits, mining applications in progress, mining licenses approved. Another example is the Department of Rural Development and Land Reform: land reform project in process, land reform projects concluded, land reform beneficiaries, absence of data on land that is subject to gazetted restitution claims etc. A third example is the Department of Human Settlements: absence of open data on housing beneficiary applications and or waiting lists.

South Africa has an opportunity to integrate these multiple disparate systems without losing their inherent value. Without figures at hand, one cannot deny that the multiple parallel disparate land information management systems are a financial drain to the country. Some integration would save much needed resources, without doing away with the original logics. From saving made from rationalization, one would use the existing technical infrastructure to include new data sets which are currently missing. It is cost effective to set up an integrated information system which is used by all government institutions, private sector and the general population.

## 4 LandNNES recommendations

### 4.1 Call for a Land Observatory

It is recommended that LandNNES, as a civil society organization advocating for People Centred Land Governance, should position itself as part of the Open Government and Open Government Data Movement/s. This is a totally different thing from advocating for government transparency and advocating for a Land Information Management System (LIMS). If that proposal is accepted, logic follows that LandNNES should take keen interest in trends, in the African continent and the rest of the South or developing countries. It is important that civil society formations in South Africa draw important lessons from approaches in other countries.

The direction that South Africa needs to take, as part of repurposing land administration

which is addressed in another concept note, entails putting in place an appropriate land data architecture. South Africa needs to embark on a process of legal and administrative change to give effect to s25(6), read in conjunction with s195(1)(f) and ((g) of the Constitution. Advocacy for progressive realization of these constitutional imperatives should be at the centre of what LandNNEs does and says. If LandNNEs is to succeed in this struggle, it needs to provide leadership on these matters in multi stakeholder formations.

Land records are a critical part of institutional memory, for both society and government. Such records are critical in that they promote accountability, transparency and good governance.<sup>35</sup> Land records are very helpful especially, in the management of land rights, as well as for the government's land tenure reform programs. There are compelling reasons for South Africa to put in place a national land data infrastructure, in the form of a land observatory. This journey will require a long process of building trust within and between state, business and civil society, which will need to be carefully managed. The two key areas which will require a clear assessment is the legal ecosystem and the technical requirements of OG and OGD. This is a separate but related process to the proposed Land Administration Framework Act. The World Bank (Adlington et al, 2011) warns of the intrinsically long time it takes to craft omnibus statutes of this nature and scale.

This would be made up of an IT system or systems which store and are used for accessing of current land data. While such a system could potentially have a range of functionalities in future, it should initially serve as a national repository of all land data which has been generated through the state machinery or paid for by the state. This will entail some level of short to medium term practical alignments and legislative reforms which include the alignment and cleansing of old order land administration statutes. This will entail reviewing, aligning and reconceptualising legal frameworks in order to build an integrated land management.

*Advances in communication technologies and data sharing cultures enables easier integration and aggregation of decentralized land administration processes and information. The focus is now on delivering national land administration infrastructures, regardless of whether centralized or decentralized organizational approaches are used. (R. Bennett et al 2012; p209)*

A key element of such a process would entail technical assessment of interoperability of our systems. The envisaged restructuring process will entail a short to medium term change management strategy systematically migrating the systems into an integrated national

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<sup>35</sup> <http://www.urbanlandmark.org.za/research/x55.php>; accessed on 19 September 2016.

system.

If LandNNEs commits to the concept of a land observatory, it needs to paint a picture of a typology of land observatory that is appropriate for our specific situation. Independence from the state is important with a portion of funding coming from the state. In South Africa there is an opportunity for a portion of funding to come from private sector players, with some from government. South Africa should be primarily initially focus on a reliable and current land data platform.

A key component of building a credible land observatory is that it requires buy in from both government and business. Government has multiple systems which are founded on a network of vested interests, which will be difficult to unravel. On the other hand, the private sector will not buy into the idea of a land observatory if they are not convinced of credibility, validity and management of data.

Is the issue collection, storage and dissemination (value chains) of land data not an issue requiring regulation through statute? The *laissez-faire* approach is definitely not working for the country.

## 4.2 Why is this important for SA?

### 4.2.1 Good governance

In addition to constitutional imperatives, there are the imperatives of good governance and land administration. For example, integrated land administration and information systems are critical for planning and monitoring for both land reform and land management in general by setting up systems and standards for enabling good land governance. The proposed system includes other related and mutually reinforcing objectives, such as making government accountable to the citizens; to enhance development imperatives; to meet obligations for adherence to international standards; to improve intergovernmental relations; to reduce the cost of doing business, etc. Ordinary citizens, including people in informal settlements, labor tenants and farm dwellers who are currently off the formal register will be included in a national land information system and their rights will be easier to administer and enforce.

### 4.2.2 Development imperative

Since 1994 a number of development initiatives have been frustrated by the lack of a coherent land administration system which accommodates a range of land tenure systems. The collapse of land administration contributes significantly to poor outcomes of land reform projects. The

poor quality of the 2017 Land Audit report is in itself an indication of the poor data against which to measure land reform outcomes reliably. The dubious reliability of the audit reveals that the absence of a national land data infrastructure was a fundamental problem in the delays and poor quality of the statistics in the report.

#### 4.2.3 Adherence to international standards by national governments

Due to unavailability of a reliable up-to-date land data information system, South Africa is unable to report accurately, in relation to a number of international and regional protocols or agreements which bind national governments to abide by certain agreed standards.

*While public policy instruments, such as new laws and regulations, are a popular method for upholding these standards at a national level, adherence can only be measured and vindicated with nationally aggregated land information. (R. Bennett, et al, 2012).*

It is, however, not enough to have these statements articulated in policy or legislation. The application of, and adherence to, legislation is far more critical. The Kyoto protocol is just one example of many such international treaties. For example, Annex 1 of binds nations to the reduction of greenhouse gases by 5.2% from the 1990 levels (UN, 1992).

National statistics are critical to how the country benchmarks itself to international standards. A reliable land data infrastructure will have an effect of improving the quality of statistics.

#### 4.2.4 Improved intergovernmental relations governance

Absence of reliable up-to-date information not only create conditions for poor decision making, but impedes planning. In South Africa the Intergovernmental Relations Framework Act No. 14 of 2005 can only work optimally in conditions where there is reliable data and information. Reliable data would improve cooperation between national, provincial governments and local government and create fertile ground for integrated policy and development of legal frameworks.

A reliable national data infrastructure with valid data provides a window of opportunity for land use decisions to be made online, providing all agencies involved to make input to decisions virtually. Shared information has a potential to drive shared approaches.

In addition to poor land information, land data is characterized by fragmentation of land data systems and multiple data infrastructures across a range of government departments and the private sector. The lack of integration of data sets makes it difficult to reach agreements and impedes decision-making. Municipalities and government departments individually generate

their own land related data using own infrastructures. Electronic data infrastructures provide a platform and an opportunity for digital submissions and processing of development applications. This would reduce the time for processing and approval of development applications between different spheres of government and line departments.

Typical examples of fragmentation could be demonstrated by the fact that DRDLR, DAFF Environmental Affairs, Department of Human Settlements all generate their own data infrastructures that are not integrated or do not talk to each other. The multiple infrastructures are not only costly to the fiscus in setting them and maintaining them, but make alignment very difficult. Various private sector bodies also have their own data infrastructures. There is an opportunity of migrating these into a single data infrastructure, with different data sets forming different layers which can be overlaid. For this situation to materialize,

*...coordination of legislation related to planning, land use, land value, and land registration by specifying the administrative role of the agencies and actors involved. It is about establishing an overall agreement and distribution of responsibilities between the involved government institutions. (Bennett et al 2012, p209 citing Enermak and Williamson, 2004)*

An integrated national land information system also presents opportunities for incorporation and overlaying of data from other sectors beyond land, such as health, disaster management, climate change etc.

#### 4.2.5 Scale of economies for lower levels of government

Government department and local government stand to benefit from economies of scale associated with a decentralized national data infrastructures. The need for procurement and maintenance of multiple infrastructures is costly.

#### 4.2.6 Opportunities for reducing costs of doing business

In the absence of reliable and integrated land information systems, business is overburdened with costs of opening a range of government doors to find information. Where data is located in a one-stop mall, it creates opportunities for cost saving for would-be investors, thereby reducing the cost of doing business. It creates certainty about correctness or validity of data or information.

Making raw and aggregated data readily available from different government sources creates new opportunities for value addition. As different actors temper with the data information grows and knowledge is enhanced.

#### 4.2.7 Enhanced government accountability to citizens

While it can be argued that citizens are not interested in data, but in services delivered, such a system will create fertile ground for accountability of government and enhance the ability of government to deliver services.

#### 4.2.8 Support to an authoritative approach to street addresses

Data quality is critical to the country's street address system for the purposes of managing "interaction between people, places and activities" (R. Bennett et al, p214). Various government agencies ranging from Independent Electoral Commission to SASSA depend on valid street address information.

Albeit a different context, the Constitutional Court further strengthened the need for legal recognition of people-land relationships by demanding that all South Africans should have an address. A unanimous judgment In the Constitutional court written by Wallis AJ, in the matter *Xolile David Kham and Others v Electoral Commission and Others*,<sup>36</sup> held that the every voter must have an address for the healthy operation of our democracy at local government level. As such elections take place in wards, it is vitally important and a legal requirement for the chief electoral officer, when registering a voter on the voters' roll, to register that voter in the voting district in which they are ordinarily resident. The requirement that had not been observed by the IEC, providing all candidates with a copy of the relevant segment of the voters' roll containing the addresses of voters in the ward with their addresses ("where such addresses are available") was seen by this court as a serious breach of the IEC's statutory obligations.

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<sup>36</sup> *Kham and Others v Electoral Commission and Another* (CCT64/15) [2015] ZACC 37; 2016 (2) BCLR 157 (CC); 2016 (2) SA 338 (CC) (30 November 2015)

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