

Applying the Fit-For-Purpose Land Administration Concept to South Africa: Will it Work?

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Key words

Communal land, tenure security, de facto land rights, land administration, fit-for-purpose.

SUMMARY

FIG Pub. No. 60, 2014, p.6 states that “Land administration should be designed to meet the needs of the people and their relationship to land, to support security of tenure for all and to sustainably manage land use and natural resources”. A fit-for-purpose Land Administration concept has been introduced in many countries across the world – Indonesia, Nepal, Uganda, Rwanda, Ethiopia, Namibia and the Caribbean, amongst others. There have been some good reports of its implementation and many lessons learnt. This paper looks at the current South African Cadastral system and considers the application of a fit-for-purpose land administration system that can bolster the existing Cadastral system and provide security of tenure that is beneficial and acceptable to all.

It has been proven that people of South Africa want their rights documented; many boundaries are visible; technology exists and is available to provide a high level of accuracy at minimal cost. There is generally political will to introduce security of tenure for all. In order to achieve this, very little amendment to legislation is required – a new form of Deeds registration (recordal) is a possibility and rationalisation of imposing planning legislation is essential. The resultant land rights would easily be upgradable to formal title.

This paper will demonstrate that there is much positive energy in the country and nothing is insurmountable. There is therefore very little preventing the implementation of Fit-for-purpose Land Administration for the benefit of all.

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1. INTRODUCTION

The International Land Measurement Standard (ILMS, 2019), describes a “Land Parcel” as “a portion of land variably described as a ‘land parcel’, ‘immovable property’, or ‘real estate’, etc., which becomes a ‘land asset’ when it is linked to people and legal entities through recognised ownership, right or interest in that land. In describing the land parcel, efforts should be made to determine the extent to which the ‘skies above and the soil below’ are included or excluded in that land parcel, as property law changes from country to country”.

ILMS goes on to say: “Land Tenure” is described as “the rules and arrangements connected with owning specified interests in the land. This can be defined as the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land and associated natural resources (water, trees, minerals, wildlife, etc.). Rules of tenure define how property rights in land are to be allocated within societies. Land tenure systems determine who can use what resources for how long, and under what conditions.”

Almost all of South Africa has been covered by the Cadastre. Yet the majority of the people living in South Africa live outside of this secure tenure system. 13% of the land in South Africa is communal land where, although extensive land parcels have been surveyed to identify administrative areas (outer boundaries) of the communities within the communal land, the vast majority of communal land is either registered as state land or, where not registered, deemed to be state land (i.e., “unalienated state land”). In addition to the system applied to communal land, insecure tenure is also prevalent in informal settlements, communities that have been resettled on state-acquired commercial farms as part of the government’s redistribution policy, many housing schemes where title deeds have never been issued to beneficiaries, and farm dwellers, labour tenants and other occupants of commercial farms.

There are an estimated 2 – 3 million homesteads on communal land. Rough guesstimates speculate that there are a similar number of dwellings in informal settlements, resettled communities, housing schemes and of farm dwellers who have insecure tenure. This means that any proposals to bring the occupants thereof into any land administration system would need to consider identifying more than 5 million land occupations.

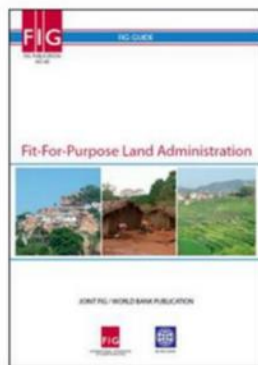
2. LITERATURE REVIEW

Land Administration is defined in the Land Administration Domain Model (LADM: ISO 19152, 2012) as “the process of determining, recording and disseminating information about the relationship between people and land”.

The United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) have released a Framework for Effective Land Administration (FELA, 2020). On p.6 it describes the ultimate goal of the Sustainable Development Goals is “to promote prosperity while protecting the planet”. This framework continues (on p.7) by referring to the global agenda, which notes that “all people have the right to an adequate standard of living, regardless of whether [the] underlying people-to-land relationships are formal, informal, statutory, customary, legal, legitimate, or otherwise in nature”. VGGT, 2012, (p. iv) notes that “access to land, fisheries and forests is defined and regulated by societies through systems of tenure. These tenure systems determine who can use which resources, for how long, and under what conditions”. Therefore, one of the guiding principles of responsible tenure governance is to “promote and facilitate the enjoyment of legitimate tenure rights” (VGGT, 2012, p. 3) and equitable access to land, fisheries and forests. This should be applicable to all forms of land tenure, whether it be public, private, communal, indigenous, customary or informal (FELA 2020, p.7). A Fit-for-purpose land administration supports all these goals by maximising the documenting, recording and recognising people-to-land relationships.

Meeting the Global Agenda

- “There is an urgent need to build systems which can identify the way land is occupied and used and provide security of tenure and control of the use of land”.
- “When building such systems the focus should be on a **“fit-for-purpose approach”** that will meet the needs of society today and can be incrementally improved over time”.



<http://www.fig.net/pub/figpub/pub60/figpub60.htm>

FIG
FIG /WB Declaration

A **fit-for-purpose** approach includes the following elements:

- **Flexible** in the spatial data capture approaches to provide for varying use and occupation.
- **Inclusive** in scope to cover all tenure and all land.
- **Participatory** in approach to data capture and use to ensure community support.
- **Affordable** for the government to establish and operate, and for society to use.
- **Reliable** in terms of information that is authoritative and up-to-date.
- **Attainable** to establish the system within a short timeframe and within available resources.
- **Upgradeable** with regard to incremental improvement over time in response to social and legal needs and emerging economic opportunities.

FIG/WB, 2014

The FIG guide to Fit-for-Purpose Land Administration, a joint FIG / World Bank publication authored by Stig Enemark, Keith Clifford Bell, Christiaan Lemmen and Robin McLaren (FIG Publication No. 60, 2014) sets out the following principles:

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- “Land administration should be designed to meet the needs of the people and their relationship to land, to support security of tenure for all and to sustainably manage land use and natural resources” (p. 5 and 6).
- Land administration functions “include the areas of: land tenure (securing and transferring rights in land and natural resources); land value (valuation and taxation of land and properties); land use (planning and control of the use of land and natural resources); and land development (implementing utilities, infrastructure, and construction planning)” (p. 13).
- “Fit-for-purpose means that the land administration systems – and especially the underlying spatial framework of large-scale mapping – should be designed for the purpose of managing current land issues within a specific country or region” (p. 6)
- “Fit-for-purpose approach is participatory and inclusive – it is fundamentally a human rights approach” (p. 6) to land rights.

Conventional land administration systems require high accuracy standards for identification, mapping and recordation of land rights. They are generally expensive and operate within a judicial oriented legal framework. As an alternative approach to conventional land administration, the Fit-for-Purpose Land Administration concept considers the cultural, social, economic and political context of a country and builds the components of land administration so as to benefit all people, regardless of their economic or social status. It recommends the use of visible features in recording the way land is occupied and used, more than invisible boundaries based on monumentation. It promotes the use of modern (advancing and affordable) technology such as GIS technology, rectified imagery and GNSS position fixing. It advocates that the adjudication, recordation and dispute resolution should be handled through transparent, flexible and simple administrative procedures utilising a human rights approach with all interested and affected parties participating.

Fit-for-Purpose Land Administration recommends the possibility of an incremental approach, where the initial recording tenure rights using simple and low cost approaches can be upgraded when need arises and is therefore built around the flexible recognition of different forms of land tenure. The Fit-for-Purpose Land Administration Implementation Strategy can be developed through a suitable land administration policy, not only from a formal legal framework, and should integrate all land information into a single system to reduce cost and improve access to information.

3. MOTIVATION

Professors Roger Fisher and Jennifer Whittal, in their shortly-to-be-published book entitled “Cadastre: Principles and Practice” (p. 163) note that “Land administration in South Africa has an ignominious history dominated by European [initially Dutch and later British colonial and ultimately the South African apartheid] policies, laws and practices. Indigenous, native, Asian, ethnically-mixed and freed-slave descendent South Africans have borne the brunt of cruel systems of governance that used land administration as a tool to engineer society along racial lines”.

South Africa uses a deeds registration system introduced during the Dutch occupation of the Cape, based on Roman-Dutch law brought to the Cape in 1652 by the *Vereenigde Oostindische Compagnie* (VOC). The first land parcels were granted by the Dutch authorities to (European) free *burghers* to increase the production of fresh food to supply passing trade ships. The Dutch recorded in deeds only those parcels of land allocated to the *burghers*. However, when the British took over the Dutch colony (from 1806 onwards), a much larger colony was proclaimed and all the land within the colony, excluding the existing registered land parcels, was proclaimed as belonging to the Crown. Over the years, all existing deeds, issued under any administration, have been incorporated into the current deeds registration system, which is now governed by the Deeds Registries Act (Act No. 47 of 1937). Registrars of Deeds are appointed over specified regions to maintain an accurate record of rights in land.

The deeds registration system is dependent on the preparation of a diagram that describes the dimensions, area and position of a land parcel, with the support of a figure delineating the shape. Since 1929, the surveying of land parcels has been governed by the Land Survey Act (Act No. 9 of 1927, which was subsequently superseded by Act No. 8 of 1997). The system permits rectilinear, curvilinear and ambulatory boundaries. The majority of the boundaries delineated in the Cadastral Spatial Information data-sets are rectilinear boundaries, consisting of straight lines between points monumented (beaconed) on the ground and coordinated in the National Control Survey System (NCSS). In certain circumstances, the line between the monumented points is a mathematically defined curvilinear boundary. The definition of curvilinear boundary can also include permanent, fixed, topographical features such as walls and fences.

Ambulatory boundaries (i.e., Cadastral boundaries that can move as time passes) include boundaries such as the high-water mark, for which there is a definition in the National Environmental Management: Integrated Coastal Management Act, Act No. 24 of 2008; a specified bank of a river (excluding a tidal river or an estuary as this is covered by the definition of the high-water mark); the middle of river, stream or water course (the definition of the banks and middle of the river have been determined by case law) and other topographical features, such as hedges, edge of cliff, middle of road, the watershed, etc. These ambulatory boundaries move with time as a result of: anthropogenic activities and use, storms, winds, erosion, tectonic movements and changes in vegetation cover, etc. Therefore, any recording of the position of the ambulatory boundary only records the position at that point in time.

Boundaries have been created from a collection of the delineated boundaries surveyed over 300+ years as indicated/recorded on the approved diagrams and survey records preserved in the Offices of the Surveyors-General. Hence the boundary lines contained in the Cadastral Spatial Information database are only as accurate as the original diagrams are, or any subsequent survey of any existing boundary may have been. Before 1929 (and the implementation of Act No. 9 of 1927), standards for the survey of boundary lines were not specifically defined.

- Some boundary lines have no recorded mathematical data – the diagram may only indicate a drawn figure, complemented with a record of the area of the land parcel; or boundaries may be drawn in relation to physical features, such as the top of a hill, or the coast;

- Some of the data defining boundary lines is inaccurate due to poor survey practice and sub-standard equipment, or were simply paced, ridden, sketched by eye or drawn from memory;
- Many monuments (beacons) defining each end of the boundaries have disappeared completely, resulting in uncertainty of legal position;
- In some instances, Professional Land Surveyors or the Surveyor-General discover errors in mathematical data or overlaps of diagrams that must be corrected.

The result is that there are enormous variances in the accuracies of boundary information as a result of surveys performed over 300+ years. Variances have to be adjusted out when compiling the continuous map of all property boundaries. Hence, there are many who legitimately believe that the current Cadastral Spatial Information of all properties is little more than a “pretty picture”. It is important to note, therefore, that the Cadastral Base Data-set comprising all land parcel boundaries, including rectilinear, curvilinear and ambulatory boundaries, is only an approximation of the legal positions of the boundaries.

The South African Cadastral system is based on the National Control Survey System (NCSS) that was established and is maintained by the Chief Directorate: National Geospatial Information based in Mowbray, Cape Town. The NCSS evolved from its origins in about 1860 to its current state, which provides a complete National Reference Framework of base stations with a horizontal co-ordinated accuracy not exceeding 0.05m with a 95% confidence. Base stations include Trigonometrical stations (pillar beacons), Town Survey Marks (submerged under an inspection cover, usually at road intersections in urban areas) and, more recently, Continually Operating Reference Stations (CORS). The CORS provide real-time and post-processing reference positioning data that is derived from Global Navigation Satellite System (GNSS) data, which each reference station collects. Fisher and Whittal (p. 375 – 376) detail that since January 1999, South Africa has used the Hartebeesthoek94 Datum – abbreviated to ‘Hart94’. Hart94 is a local datum that uses the WGS84 ellipsoid as its reference and aligned to the ITRF91 (epoch1994.0). This system has also been adopted by many of South Africa’s neighbours, and it was noted that a similar system even exists in Rwanda.

The Cadastral Survey system documents the position of land parcels with varying degrees of accuracy; generally, the newer the diagram, the more accurate the position of the boundaries recorded. Each diagram of a land parcel then needs to be linked to a legal person or entity through the registration process. According to Section 2 of Act No. 47 of 1937:

- 1) “The registrar shall, subject to the provisions of this Act-
 - a) take charge of and, except as provided in subsection (2) or (3), preserve or cause to be preserved all records which were prior to the commencement of this Act, or may become after such commencement, records of any deeds registry in respect of which he has been appointed...;
 - b) examine all deeds or other documents submitted to him for execution or registration, and after examination reject any such deed or other document the execution or registration of which is not permitted by this Act or by any other law, or to the execution or registration of which any other valid objection exists...;

- c) register grants or leases of land lawfully issued by the Government or grants issued by any other competent authority, and register amendments, renewals and cancellations of such leases, and releases of any part of the property leased;
- d) attest or execute and register deeds of transfer of land, and execute and register certificates of title to land;”

The South African Land Administration system therefore contends that a parcel of land is inextricably linked to people and a land parcel only becomes a legal object once it has been registered in the Deeds Registry.

Act No. 8 of 1997 already makes provision for the principle of Fit-for-purpose Land Administration:

- The Act defines a diagram as “a document containing geometrical, numerical and verbal representations of a piece of land, line, feature or area forming the basis for registration of a real right”.
- Section 11 of the Act stipulates that a land surveyor shall-
 - a) carry out every survey undertaken by him or her in accordance with this Act, and in a manner that will ensure accurate results;
 - b) be responsible to the Surveyor-General for the correctness of every survey carried out by him or her or under his or her supervision, and of every general plan or diagram which bears his or her signature;
- The Act continues in Section 14: “No general plan or diagram of any piece of land shall be accepted in any deeds registry in connection with any registration therein of that land, unless the general plan or diagram has been approved by the Surveyor-General”.
- Again, Section 16 states: “No general plan or diagram shall be approved by the Surveyor-General unless it is prepared under the direction of and signed by a land surveyor”.
- Regulation 3 appended to the Act, in prescribing field measurements and observations:
 - “(1) A land surveyor shall determine the positions of all stations and beacons within the limits of accuracy prescribed in regulation 5 and shall check every part of his or her survey.
 - (2) Unless otherwise adequately checked, the minimum requirements for the determination of the position of a point are: ...
 - (e) When its position is determined by photogrammetric methods, it shall:
 - i) Fall wholly within the perimeter of the ground control points;
 - ii) Be measured in at least two stereoscopic models where the base/height ratio shall not be greater than 0,80, or be measured in at least four photographs for bundle intersections, where the intersection for any pair of rays shall not be less than 30 degrees and not greater than 150 degrees;
 - iii) Be positively identified on the photographs by the land surveyor.”

The creation of land parcels is efficient and cost effective. However, Section 6(1) (b) of Act No. 8 of 1997 requires that the Surveyor-General, “before any registration is effected in a deeds registry, examine and approve or provisionally approve all general plans and diagrams which have been prepared in accordance with this Act and, when applicable, are in accordance with any statutory consent in so far as the layout is concerned”. The requirement of a “statutory consent in so far as the layout is concerned” frequently causes much hardship (time and cost) to developers and prospective beneficiaries of land tenure. Scores of pieces of planning legislation remain on the statute books, and are administered by inexperienced and ill-equipped officials, who are totally insufficient in number to assess any development of land in terms of the relevant statutes. New legislation (in particular the Spatial Planning and Land Use Management Act, Act No. 16 of 2013) has been created without removing old order legislation from the statute books, resulting in much duplication of requirements for statutory consents.

Sadly, Land Administration in South Africa, which for much of the 20th century was considered to be one of the world’s premier Cadastral and land information systems, is currently in decline. The same plight that the planning authorities are experiencing (mentioned above) impacts on most Land Administration institutions. The Cadastral Survey adjudication process and the Cadastral Spatial Information databases are still being run remarkably well on outdated systems, largely by willing but generally inexperienced and ill-equipped officials. Attempts to apply technological innovation, modern systems and updates to legislation have encountered many problems and costly delays.

4. PROPOSALS

The VGGT, 2012, notes that a secure tenure system supports the recognition and respect of all legitimate (formal and social) tenure right holders and their rights, promotes the safeguarding of legitimate tenure rights against threats and infringements and therefore lobbies for the promotion and facilitation of legitimate tenure rights, and promotes access to justice to deal with infringements of legitimate tenure rights, thereby minimising tenure disputes, violent conflicts and corruption.

South Africa is looking to achieve socio-economic stability and inclusive economic growth for all South Africans through an efficient, inclusive and integrated Land Administration System that includes efficient Land Management; unitary, non-racial and flexible Land Tenure and a Land Administration System that supports an equitable redistribution of land resources. The purpose of this vision is to:

- Provide legally secure tenure for those with insecure tenure;
- Promote socio-economic stability and growth;
- Develop an efficient Integrated Land Administration System that is relevant to all;
- Effect a unitary, non-racial and flexible Land Tenure System; and
- Link all people to the area of land (*indawo*) they occupy, use or to which they have rights.

In order to implement the vision, it is essential to expand the current system to include the recognition of accepted (i.e., acceptable to the greater community?) land rights of people living

in traditional communities and people living in other forms of communal occupation, including those living in informal settlements. The system must provide mechanisms to update and upgrade any recordal of land rights, which is recognised as merely an entry step into the tenure system. The whole proposed Land Administration system satisfies the political mandate of the ruling party.

Any such Land Administration system created would introduce land tenure for five key types of occupation that currently have insecure tenure:

- Informal settlements (shack dwellers);
- Community (land occupied by group of people, including land where a communal property association has been established);
- Communal land, customary land, land under traditional authorities, tribal land and any land that was part of the South African homeland system;
- Human Settlement – government initiated settlement schemes; and
- Farm dwellers (farm workers and their families) living on commercial farms.

The one key area that is being considered is whether there should be a differentiation (in terms of the continuum of land rights) between recordal and registration of land rights. This is particularly sensitive because of the discriminatory processes imposed on previously disadvantaged groups in the country. However, there is recognition of the two separate systems are identified as:

- Recordal (Certificate of Land Right/ a legally secure tenure) for:
 - Documenting the reality: land occupation, land use, rights in or to land
 - Social tenure (as per Social Tenure Domain Model, for example)
 - Individual community/ communal/ informal rights
 - Undisputed recognition of identity with the land
- Registration (Title Deed/ Legal Tenure) for:
 - Currently registered land parcels
 - Formal rights
 - State land
 - External boundaries of land for identified communities
 - Applicable legislation that improve rights of insecure tenure (e.g., Upgrading of Land and Tenure Rights Act, Act No. 112 of 1991, and Interim Protection of Informal Land Rights Act, Act No. 31 of 1996).

It is recognised that recordal is the documentation of undocumented rights that exist; it is part of the process toward registration, although it is not necessary to proceed to registration. Recordal will be a cheaper, quicker process (not inferior). It is noted that with extraordinary advances in recordal methods such as GNSS, rectified imagery (aerial photographs) and GIS, anything currently produced will be more accurate than most of the existing land records existing in the Offices of the Surveyors-General.

There are different types of rights, but at the end of the day, any right created by this system must ultimately be registerable and may be registered. The system must protect rights, ensure legal security of tenure, and not necessarily produce freehold ownership.

5. STRATEGY

As with any radical transformative policy implementation, there are major issues to be considered. The biggest hurdle is the multiplicity of overlapping rights that may need to be recognised, as any or all of the following may be present on an area where people-to-land relationships still need to be investigated and recorded:

- Rights of original title holder and successors in title, which were mostly granted to people of European descent. There are also many instances of quitrent title that is still recorded in the original “native” owner’s name, granted by the Crown or the state to loyal subjects. Between 1934 and 2012, these remaining quitrent titles were largely ignored;
- State land, which includes state-assumed ownership of all land that has never been registered, including traditional or tribal land, and land where the state-resumed ownership, even though communities occupy it and therefore deemed “trust land”;
- Allocations issued under the formal “Permission to Occupy” (PTO) system, where insecure individual rights were granted to indigenous peoples by a Resident Magistrate, but the state retained ownership;
- “Permission to Occupy” allocated by traditional authorities, usually not recorded in any government-run system. Such allocations were made at the pleasure of the traditional leadership and recognised only as long as the recipient was considered a faithful subject;
- Land allocated under the so-called “Betterment Scheme”, where state officials relocated indigenous people into “Villages” to increase the efficiency of agricultural production through state-run cultivation of arable land and consolidation of grazing land;
- African community leadership (king, chief, headman, council) apportioned land to subjects as they deemed fit;
- Allocations determined by civil society, including “people farmers”;
- Allocation of land by political structures as a result of allegiance, usually orchestrated as a mass invasion of identified land parcels; and
- Every person residing with insecure tenure on land, no matter how they got there (birth / voluntarily / forcibly / migrants).

The following protocol is being developed:

5.1. Determine who the land owner is:

5.1.1. Discuss this with officials from the State Land Administration component of the Department of Rural Development and Land Reform in the first instance

5.1.2. Is it state land –

5.1.2.1. Registered as such in the Deeds Office

5.1.2.2. Unalienated state land (never registered)

5.1.3. Is it private land, with corresponding deed in Deeds Office

5.2. Determine who the occupants are:

5.2.1. If it is state land, is it communal land?

5.2.2. Who is the community, who is the traditional leadership?

5.2.3. Are there other recognisable rights?

- 5.2.4. PTO's – where are these recorded? (Magistrate's Office, Department of Agriculture, Traditional Council)
- 5.3. The community must be informed in order to participate fully in any land allocation process:
 - 5.3.1. Always follow protocol and the culture of the community
 - 5.3.2. Much preparation is necessary to ensure the relationships and rights are understood
 - 5.3.3. Develop relations with the relevant government institutions that are involved
 - 5.3.4. Information sessions must be widely advertised to ensure maximum involvement of the community
 - 5.3.5. 80% must support / agree to the proposal. This must all be recorded in the accepted community resolution documents
- 5.4. On state land, the Minister (as the nominal owner) ultimately approves the transfer of land, or the registration of rights
 - 5.4.1. The Minister must be convinced that all processes have been followed
 - 5.4.2. The Minister must be convinced that the community has been consulted and at least 80% of the members agree to the process
- 5.5. On private land, clarify who will receive compensation, and how, in accordance with the pre-agreed process:
 - 5.5.1. Some funds may be paid into a communal trust fund for the benefit of the community
 - 5.5.2. Successors in title of land owners; which may require legal expropriation as prescribed in the relevant legislation
 - 5.5.3. Occupants of the land, who may not be the registered owners
- 5.6. Communities are more likely to preserve, protect and manage their rights when such rights in land are recognised.
- 5.7. The community can assist with the determination of all overlapping rights (whether registered, recorded, social, recognised)
 - 5.7.1. Perhaps it is time that the state develop and implement a Land Rights Enquiry system to resolve the plethora of overlapping and conflicting land rights?
 - 5.7.2. Some of the quasi-government utility companies such as Eskom (Electricity Supply Commission) and SANRAL (South African National Roads Agency Limited) have internal structures performing this function due to their need to negotiate acquisition of land for their infrastructure.

6. DEFINING THE LAND PARCELS

Many of the unregistered land occupations are defined by fences, hedges or walls. The South African National Mapping Agency, known as the Chief Directorate: National Geospatial Information, has extensive aerial photography coverage of the whole country. The more dense the population, the larger the scale of the photography. Much of this aerial photography has been adjusted to rectified imagery at an accuracy better than most of the spatial data recorded in the Offices of the Surveyors-General.

Therefore, the country has usable rectified imagery from which all visible boundaries can be determined.



FIGURE 1: A TYPICAL SETTLEMENT ON COMMUNAL LAND IN THE MANYAVU AREA OF KWAZULU-NATAL

During the 1980s, the state embarked on a survey to document all the previously un-surveyed townships that had been laid out primarily for African workers. Land Surveyors surveyed hundreds of thousands of land parcels in a very short time. It is estimated that each Land Surveyor was able to physically survey, using theodolites, electronic distance measuring equipment and tape measures, approximately 500 erven a week. The project was completed well before schedule.

Therefore, the land surveying profession is confident that, using much more modern technology, such as GNSS equipment, rectified imagery, drones (UAVs) and GIS software, the vast majority of the land parcels can be surveyed to the accuracies and standards prescribed by Act No. 8 of 1997. The profession is ready and willing to prepare the necessary documentation, starting with the mark-up of rectified imagery and the creation of the Cadastral plans.

There are three issues that still require attention:

- 1) The requirements of the plethora of planning legislation, much of which is applicable to state projects, would need to be addressed or overcome.
- 2) The method of linking the people (both those who reside on the land parcel and those who have rights thereto) to the land parcel. A community-based process such as the Social Tenure Domain Model is essential to ensure maximum participation and reduce the risk of excluding any rightful beneficiary.

- 3) Lastly, the method of recording the people-to-land relationships in a secure system, whether it be the current registration system or another form of recording.

7. CONCLUSION

Contrary to widespread misinformed opinion, the high accuracy requirements, and the requirement to use qualified registered surveyors is not an expensive option. A single subdivision may be an expensive exercise, but mass surveys based on existing visible features can and will be performed at very little cost and at great speed and precision – “cheap, accurate and fast”! Further, due to the country’s history, where the indigenous population have always received lesser forms of (insecure) title, it would be preferable to provide all people the same land tenure. Hence, the legal requirements of Cadastral surveying can easily be accomplished at very little cost per land parcel.

Government realises the slow pace at which land registration is implemented in the current system and also recognises that cost of acquiring a title deed is too high for most. The government is therefore investigating a new, more inclusive, Integrated Land Administration System (ILAS) that will facilitate the recordal of the large number of new land rights to be created.

Considerations on processes to be followed to connect the people (both those who reside on the land parcel and those who have rights thereto) to the land parcel are already under way. The government recognises the importance of ensuring maximum participation.

Concerted effort still needs to be taken to remove the plethora of planning legislation that hampers any land development. Further, the state will need to develop the necessary skills for any streamlining of land planning and environmental legislation to be implemented in an efficient and effective manner, so that “Land administration [will be] designed to meet the needs of the people and their relationship to land, to support security of tenure for all and to sustainably manage land use and natural resources” (FIG Pub 60, p. 60).

In South Africa, there is generally political will to make it happen; very little amendments to legislation is required – a new form of Deeds registration (or recordal) is a possibility and rationalisation of imposing planning legislation is essential; it has been proven that people want their rights documented; many boundaries are visible; technology exists and is available to provide a high level of accuracy at minimal cost; the resultant land rights would easily be upgradable to formal title.

There are therefore so many positive aspects already in place and nothing outstanding is insurmountable. A fit-for-purpose Land Administration system could easily be implemented in South Africa.

REFERENCES

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Christopher Williams-Wynn (South Africa)

FIG Working Week 2020
Smart surveyors for land and water management
Amsterdam, the Netherlands, 10–14 May 2020

Act No. 47 of 1937: The Deeds Registries Act (Act No. 47 of 1937)

Act No. 112 of 1991: The Upgrading of Land and Tenure Rights Act, Act No. 112 of 1991.

Act No. 31 of 1996: The Interim Protection of Informal Land Rights Act, Act No. 31 of 1996

Act No. 8 of 1997: The Land Survey Act (Act No. 8 of 1997) (which was superseded the original Land Survey Act, Act No. 9 of 1927)

Act No. 24 of 2008: The National Environmental Management: Integrated Coastal Management Act, Act No. 24 of 2008

Act No. 16 of 2013: The Spatial Planning and Land Use Management Act, Act No. 16 of 2013

Clarke D, 2018: Standard for the National Control Survey System, Chief Directorate: National Geospatial Information, Department of Rural Development and Land Reform, 3rd Revision, 2018.

Enemark S., 2018: Fit for purpose Land Administration – Country Implementation Strategy: Republic of Uganda, 2018. UN Habitat, Global Land Tenure Network publication.

FELA, 2020: Draft release entitled Global Consultation on the Framework for Effective Land Administration. (The United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM), 2020)

FIG Pub. No. 52, 2013: The Social Tenure Domain Model – A pro-poor land tool. Christiaan Lemmen. (A joint publication of the International Federation of Surveyors, Global Land Tool Network and United Nations Human Settlements Programme (UN-HABITAT), May 2013)

FIG Pub. No. 60, 2014: FIG guide to Fit-for-Purpose Land Administration. Stig Enemark, Keith Clifford Bell, Christiaan Lemmen and Robin McLaren. (A joint FIG / World Bank publication, 2014)

Fisher and Whittal, 2020: A shortly-to-be-published book entitled “Cadastre: Principles and Practice” by Roger Fisher and Jennifer Whittal, South African Geomatics Institute, 2020

ILMS, 2019: International Land Measurement Standard: Due Diligence for Land and Real Property Surveying. (International Land Measurement Standard Coalition, 2019)

LADM, 2012: The Land Administration Domain Model (LADM: ISO 19152, 2012)

VGGT, 2012: Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the context of National Food Security. (The Food and Agriculture Organisation of the United Nations, 2012)

BIOGRAPHICAL NOTES

Chris Williams-Wynn grew up in the Eastern Cape, South Africa, and went to school at St Andrew’s College in Grahamstown. He completed a BSc (Honours) degree in Land Surveying from what is now the University of KwaZulu-Natal in 1981 and his Masters in Public and Development Management at the University of the Witwatersrand in 2007.

He is a Registered Professional Land Surveyor, a Registered Sectional Titles Practitioner and a Registered Township Planner. Having worked for 17 years in the private sector, he moved into the government sector due to his deteriorating physical ability. Mr. Williams-Wynn was appointed the Surveyor-General: KwaZulu-Natal on 1st May 1998, and transferred at his own request to establish the Office of the Surveyor-General: Eastern Cape on 1st July 2010.

Mr. Williams-Wynn advises Government institutions on land issues, with particular interest in legislation affecting property development approvals and land administration. He serves on the Townships Board, the Land Use Regulations Board and the Spatial Planning and Land Use Management Steering Committee. He has had papers published in the PositionIT magazine, the Deeds Journal and on the FIG website. One of his main passions is to see people in the Traditional Communities also benefit from the Land Rights system of the country.

Outside of his survey career, Mr. Williams-Wynn is interested in environmental conservation, with special interests in birds, trees and estuaries. This interest has benefited his knowledge concerning coastal public property and the legal position of boundaries adjoining the high water mark of the sea and rivers. He is a Society Steward of the Methodist Church. He is married to Glenda, a Natural Sciences Graduate, who works in the Conservation Ecology Research field and they live in Kidd's Beach.

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