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A Fit-For-Purpose Approach to Land Administration in Africa

Supporting the Global agenda

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A Fit-For-Purpose Approach to Land Administration in Africa - supporting the 2030 Global Agenda

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ABSTRACT

Land is the most important resource for many developing countries in Africa to achieve the sustainable development goals. Yet many African countries are faced with various problems often causing land conflicts, reducing investments and economic development, and preventing countries reaching their true potential. Africa and other developing countries will not efficiently utilize their land resources as a means to overcome these challenges, unless they drop the approaches to security of tenure, many of which, were introduced during colonial times, but have not helped in securing land tenure rights for a significant proportion of their populations, in a non-discriminatory manner, that leaves no body behind.

In this paper, we describe the key principles for building flexible, universal and sustainable Fit for Purpose (FFP) land administration (LA) systems in African countries, as a better alternative to conventional approaches that focus on unrealistic accuracy standards and complex legal procedures. The discussion informed by a review of literature on Fit for Purpose Land Administration, the sustainable development goals, and the authors experience on land administration systems in Africa and globally. Furthermore, two experiences from Rwanda and Uganda are introduced to demonstrate that building FFP land administration systems is a viable solution to solving the global security of tenure divide.

We conclude that implementation of Fit for Purpose Land Administration approach requires political support at national and local level, to facilitate the change process, and in embedding FFP LA provisions into national and local laws. Likewise, effective capacity building is fundamental to the success of such programs. Professionals and the general society must understand that these simpler, less expensive and participatory methods are just as effective and secure as conventional land surveying methodologies and judicial recordation procedures. Finally, involvement of development partners such as Global Land Tool Network (GLTN), The World Bank, United Nations Global Geospatial Information Management (UN-GGIM), The United Nations Human Settlements Programme (UN- HABITAT) and Food and Agriculture Organization of the United Nations (UN FAO) is key in ensuring that the land administration projects technically and financially supported are designed around FFP concepts.

Keywords: Fit for Purpose, Land Administration, Africa, SDGs,

1.0 INTRODUCTION

Most less developed countries are struggling to find remedies for their many land problems that are often causing land conflicts, reducing investments and economic development, and

preventing countries reaching their true potential. Existing investments in land administration have been built on legacy approaches, have been fragmented and have not delivered the required pervasive changes and improvements at scale.

The solutions have not helped the most needy - the poor and disadvantaged that have no security of tenure. Infact the beneficiaries have often been the elite and organizations involved in land grabbing. It has therefore become necessary to rethink the approaches to devise new solutions that can deliver security of tenure for all, are affordable and can be quickly developed and incrementally improved over time. The Fit-For-Purpose (FFP) approach to land administration has emerged to meet these simple, but challenging requirements.

This paper describes the key principles for building sustainable and FFP land administration systems in African countries where often less the 10 per cent of the land and population is included in the formal systems. The paper argues that building such FFP land administration systems is the only viable solution to solving the global security of tenure divide. The FFP approach is flexible and includes the adaptability to meet the actual and basic needs of society today and having the capability to be incrementally improved over time. This will be triggered in response to social and legal needs of economic development, investments and financial opportunities that may emerge over the longer term. In this FFP approach, land rights can be secured for all in a timely and affordable way.

2.0 LAND ADMNISTRATION AND THE 2030 GLOBAL AGENDA

There is a broad agreement that, while the MDGs provided a focal point for governments, they were too narrow. The MDGs are now replaced by the Sustainable Development Goals (SDGs) with a new universal set of 17 Goals and 169 target that UN member states are committed to use to frame their agenda and policies over the next 15 years (see Figure 1). The goals are action oriented, global in nature and universally applicable. Targets are defined as aspirational global targets, with each government setting its own national targets guided by the global level of ambition, but taking into account national circumstances. The goals and targets integrate economic, social and environmental aspects and recognise their interlinkages in achieving sustainable development in all its dimensions. While the MDGs did not mention land directly, the new SDGs include several goals with a significant land component mentioned in the targets (see Table 1). For example, Goal 1 calls for ending poverty in all its forms everywhere, and target 1.4 states that by 2030 all men and women will have equal rights to ownership and control over land and other forms of property.

Figure 1: The Sustainable Development Goals (Adopted from UN, 2015).

Similarly, the land component is referred to in target 3 of Goal 2 on ending hunger, and, more generally in Goal 5 on gender equity, Goal 11 on sustainable cities, Goal 15 on life on land, and Goal 16 on peace, justice and strong institutions. These goals and targets will never be achieved without having good land governance and well-functioning country-wide land administration systems in place.

Table 1: Link between Land Administration and SDGs

Goal No.	Focus	Relevant to Land Administration
1	End poverty in all its forms everywhere	Poverty eradication programs, more especially in Africa and other developing countries are largely based on efficient utilization of land and natural resources.
2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Food security and sustainable agriculture are dependent on land efficient utilisation of land
3	Ensure healthy lives and promote well-being for all at all ages	Ensuring healthy lives is partly related to land administration given that good landuse planning approaches can create healthy living conditions, for example by improving sanitation.
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	This goal in indirectly related to land administration. Education facilities require planning and allocation of land.
5	Achieve gender equality and empower all women and girls	Land administration resents a unique opportunity for promoting gender equality and empowerment given that many African communities are dependent on land for livelihoods.

Goal No.	Focus	Relevant to Land Administration
6	Ensure availability and sustainable management of water and sanitation for all	Sustainable management of water resources and sanitation are dependent on proper landuse planning and sustainable utilisation of land resources.
7	Ensure access to affordable, reliable, sustainable and modern energy for all	Provision of sustainable energy such as hydro, biogas have a direct bearing on land administration given that most of the resources require land allocation, planning and investment.
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Effective management of land and natural resources contribute to economic growth and are sources of employment
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Infrastructure and industrialisation require access to land
10	Reduce inequality within and among countries	Indirectly related to land administration given that developing countries' main option is to utilise land and natural resources so as to bridge the gap between the first and third world countries.
11	Make cities and human settlements inclusive, safe, resilient and sustainable	Resilient and sustainable cities require urban planning, which require good land administration practices.
12	Ensure sustainable consumption and production patterns	Indirectly linked to land where consumption and production are related to use of land and natural resources
13	Take urgent action to combat climate change and its impacts	Climate change adaptation and mitigation measures require responsible use of land and natural resources.
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	The definition of land extends to oceans and seas implying a directly relationship between land administration and this goal.
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Sustainable use of natural ecosystems requires sound land management practices.
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Indirectly linked to land administration more especially on access to land.

Goal No.	Focus	Relevant to Land Administration
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development	Sustainable development links with land administration especially where development is based on investment in land or use of land as capital.

The SDGs, thereby, provide a framework around which governments, especially in developing countries, can develop policies and overseas aid programmes designed to alleviate poverty and improve the lives of the poor, as well as a rallying point for NGOs to hold them to account. In other words, the SDGs is a key driver for countries throughout the world – and especially developing countries – to develop adequate and accountable land policies and regulatory frameworks for meeting the goals.

There is strong request for effective monitoring and assessment of progress in achieving the SDGs. There is a need for reliable and robust data for devising appropriate policies and interventions for the achievement of the SDGs and for holding governments and the international community accountable. Such a monitoring framework is crucial for encouraging progress and enabling achievements at national, regional and global level. This calls for a "data revolution" for sustainable development to empower people with information on the progress towards meeting the SDG targets (UN, 2014, p.7). For example, the 2014 progress report showed that the extreme poverty rate had been halved and MDGs Goal 1 was thereby met at a global scale - but with huge regional deviations. This was achieved mainly due to the contribution from China where, in 1978, the collective farms were dismantled and replaced by long-term leases to allocate land rights to farming households. This policy enforced an era of agricultural growth that transformed rural China and led to the largest reduction of poverty in history. The percentage of people living in extreme poverty declined from about 80% of the population in 1981 (the highest in the world at that time) to only 13% in 2008. In the same way, in Vietnam, the extreme poverty was reduced from 58% in early 1990s to 15% in 2008.

On the other hand, even if the Sub-Saharan Africa has seen a considerable growth rate of above 5% per year for more than a decade, this region remains poor for the most part and has been unable to translate its recent robust growth into rapid poverty reduction (Byamugisha, 2013). This underpins the necessity of detailed monitoring at regional and local / country level.

It should be recognised, that, next to the SDGs, the wider global agenda includes a range of global issues such as responsible governance of tenure, human rights and equity, climate change and natural disasters, rapid urbanisation, and land conflict situations, see Figure 2 (Enemark, 2014).

Figure 2: The Wider Global Agenda

3.0 FOCUS ON AFRICA

Sub-Sahara Africa is often referred to as an underdeveloped region with a great potential, but Africa is now on the move. Economic growth in Sub-Sahara Africa is considerable having a rate of above 5 per cent per year for more than a decade. Projections by the World bank indicate that this will continue for the years ahead while the global economy will grow at only 2.5 per cent (and only about 1 per cent in Western economies). So Africa is expected to grow twice as fast as the global economy.

However, Sub-Sahara Africa is still mostly poor and has been unable to translate its recent robust growth into rapid poverty reduction. Compared to other developing regions, Sub-Sahara Africa has generally been left behind and is struggling with issues such as insecurity of tenure, informal settlements and urban slums, landownership inequalities and landlessness, and degradation of the environment and natural resources (see Figure 5). These facts indicate that poor land governance, including the manner in which land rights are defined and administered, may be the root of the problem.

The global agenda is very much about bringing this map back to scale through poverty eradication, improving education and health, facilitating economic development, encouraging good governance and ensuring sustainability.

In recent years, significant progress has been achieved in countries such as Rwanda and Ethiopia through comprehensive land reform projects and other countries are following in the footsteps. At the regional scale the challenges are addressed by setting a promising agenda for Africa and by focusing on sustainable land governance as the core means to achieve the goals. The overarching agenda is set by the African Union, the African Development Bank,

and the UN Economic Commission for Africa. It is adopted by the African leaders through two seminal documents "Declaration on land Issues and Challenges in Africa" and the "Framework and Guidelines on Land Policy in Africa" (AUC/UNECA/ADB, 2009).

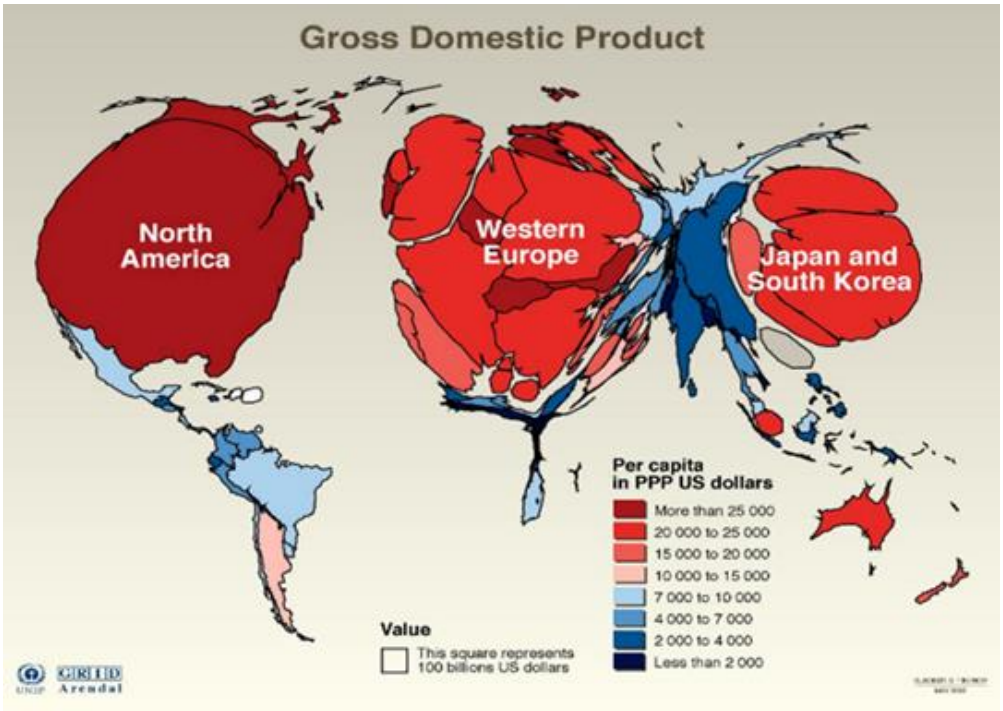

Figure 1: A hypothetical map of the world generated by using the GPD as the scale for territorial size. The so-called western regions – North America, Western Europe, South Korea and Japan 'balloon', while other regions such as Africa almost disappear (Adopted from UNEP, 2007)

But developing land policies is not an end in itself – they need to be effectively implemented. This relates to land reform programmes, land administration infrastructures and building of transparent and sustainable institutions.

4.0 LAND GOVERNANCE

The organizational structures for land governance and administration differ widely between countries and regions throughout the world and reflect the cultural and judicial setting of the country and jurisdiction. Sound land governance requires a legal and regulatory framework, operational processes and capacity to implement policies consistently within a jurisdiction or country in sustainable ways. In this regard, land administration systems provide a country with an infrastructure for implementing land policies and land management strategies in support of sustainable development (see Figure 4)

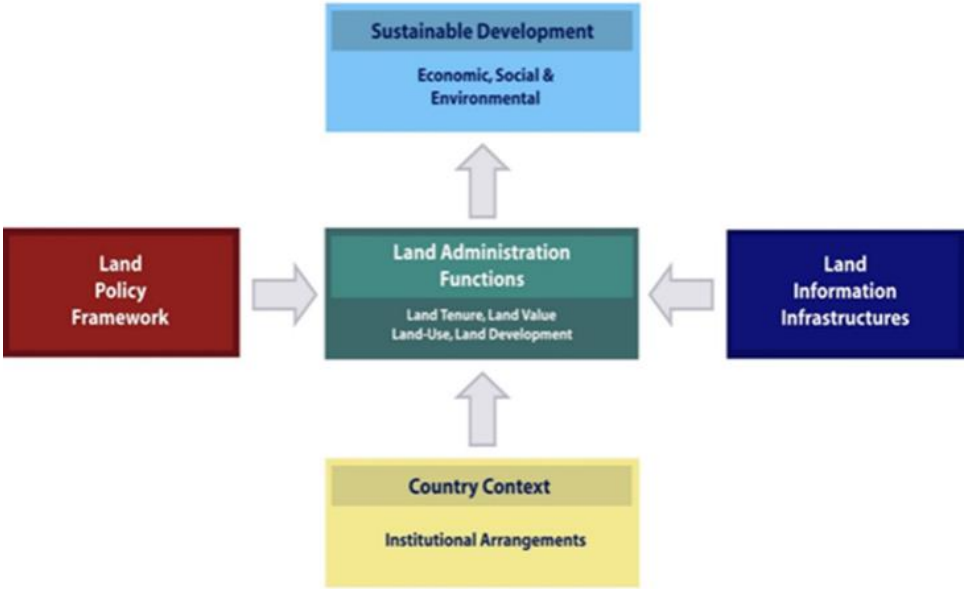

Figure 4: The Land Management Paradigm (Enemark, 2004, Williamson et.al. 2010)

Sound land governance requires a legal and regulatory framework, operational processes and capacity to implement policies consistently within a jurisdiction or country in sustainable ways. In this regard, land administration systems provide a country with an infrastructure for implementing land policies and land management strategies in support of sustainable development. The operational component of the land governance concept is the range of land administration functions including:

- 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, construction works, and urban and rural developments).

These functions interact to deliver overall policy objectives, and they are facilitated by appropriate land information infrastructures that include cadastral and topographic datasets linking the built and natural environment.

A land administration system provides governments with an infrastructure for securing land tenure rights, determining valuation and taxation of land and managing its use and development. It sits within the principles of responsible land governance in the framework of national land policies (Enemark, et.al., 2016) .

5.0 CONTEXTUALISING THE FIT-FOR-PURPOSE APROACH

In the context of building sustainable land administration systems in developing countries, the term “Fit-For-Purpose” means applying the spatial, legal, and institutional methodologies that are most fit for the purpose of providing secure tenure for all. This approach will enable the building of national land administration systems within a reasonable timeframe and at affordable costs. The systems can then be incrementally improved over time.

The FFP approach starts by identifying and analysing the purpose(s) that the systems are intended to serve and then deciding on the adequate means to be applied for meeting the purpose(s). This means that systems should be designed to meet / fit the purpose(s) rather than just following some rigid set of regulations and demands for accuracy. These unnecessary constraints, often imposed during colonial times, result in systems that are

unsustainable and frankly unattainable at a national wide scale for developing countries. In this regard, of course, political commitment, corruption, largesse and a range of other factors play in as well.

The FFP approach focuses firstly on defining the "what" in terms of the end outcome for society and communities and then, secondly, it looks at the implementation design of "how" this could be achieved. Or to put it another way, the means (the "how") should be designed to be the most "fit" for achieving the purpose ("what"). A catch phrase for this approach used in New Zealand is "As little as possible – as much as necessary" (Grant and Haanen, 2007). This is just another way of saying "Fit-For-Purpose".

It is clear that the implementation proposed here is significantly different from the more advanced systems embedded in many western economies. This could lead to concerns that, by not following modern best practice for land administration as implemented predominantly in the Western world, then developing countries might be wasting precious resources on building systems that will prove to be outdated and ineffective.

What is usually forgotten in this discussion is that the advanced land administration systems of developed economies did not suddenly appear fully formed in those countries. In most developed countries, the initial cadastral and registration systems were implemented very roughly and quickly – rough even by the standards of the day. These rough methods were fit for the purpose for the society at that time – and the result was a quickly developing and vibrant society and economy. As those societies and economies developed, the methods that had once been fit for the purpose were, several decades later, seen to be no longer fit. Governments undertook formal reviews, reports were written, the old ways were condemned as inadequate and new FFP system upgrades were designed. What was easily forgotten was how well those rough and ready methods had served to quickly build and advance the societies that outgrew them. Developing countries have better opportunities to develop even more improved systems given that advances in technology have reduced the cost but also increased the accuracy of capturing land administration data.

Three key characteristics of FFP Land Administration Approach

The FFP approach, as illustrated in **Error! Reference source not found.** below, has three fundamental characteristics:

- Focus on the purpose. This new approach is focused mainly on the purpose of providing secure tenure for all. The means to achieve this should then be designed to be the most "fit" for achieving this purpose rather than blindly being guided by rigid standards for accuracy and top-end technological solutions
- Flexibility. The FFP approach is about flexibility in terms of demands for accuracy, and for shaping the legal and institutional frameworks to best accommodate societal needs. The FFP approach also includes the flexibility to meet the need for securing different kinds of tenure types, ranging from more social or customary tenure types to formal types such as private ownership and leasehold.
- Incremental improvement. The systems should be designed for initially meeting the basic needs of society today. This will identify the optimal way of achieving this by balancing the costs, accuracy and time involved. This creates what is termed a "Minimum Viable Product". Incremental upgrading and improvement can then be undertaken over time in response to emerging needs and opportunities.

These three characteristics underpin the FFP concept, consisting of three core components: the spatial, legal & regulatory and institutional frameworks (see Figure 5 below). Each of the three frameworks has four corresponding key principles as presented in Table 2 below.

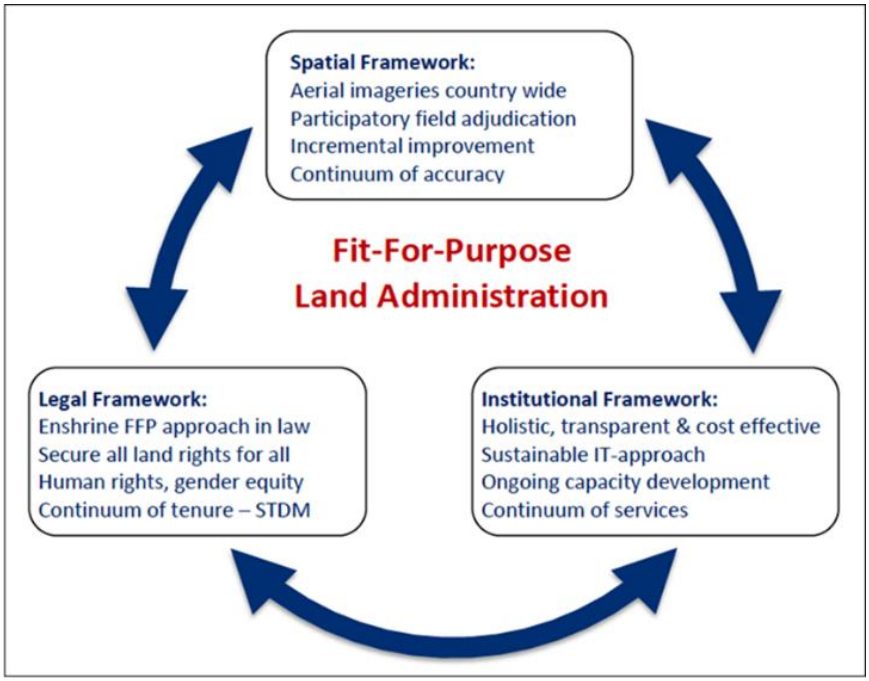

Figure 5: The Fit-For-Purpose Concept (Enemark, et al., 2016)

5.1 The FFP Concept.

The FFP concept includes three core components: the spatial, the legal, and the institutional frameworks. Each of these components includes the relevant flexibility to meet the actual needs of today and can be incrementally improved over time in response to societal needs and available financial resources. This means that the concept – in itself – represents a continuum. The three framework components are interrelated and form a conceptual nexus underpinned by the necessary means of capacity development.

The spatial framework aims to represent the way land is occupied and used. The scale and accuracy of this representation should be sufficient for supporting security of the various kinds of legal rights and tenure forms through the legal framework as well as for managing these rights and the use of land and natural resources through the institutional framework. The FFP approach therefore needs to be enshrined in the land laws, and for administering this regulatory set-up the institutional framework must be designed in an integrated, transparent and user-friendly way. This administration again requires reliable and up to date land information that is provided through the spatial framework.

The FFP concept, this way, encompasses a dynamic interaction of the spatial, legal, and institutional framework for achieving the overall land policy objectives and outcomes for society and communities – and each of the frameworks can be incrementally improved over time. These dependencies need to be carefully coordinated to ensure that the frameworks are mutually reinforcing. For example, if legitimate rights are recognized, then the legal framework will have to be modified to legally enshrine the tenure type, ICT solutions will have to be adapted to support overlapping rights and new relationships prevalent in social tenures, and data recording procedures in the spatial framework modified to capture these relationships.

Key principles. The FFP approach includes four key principles for each of the three frameworks as outlined in Table 2

Table 2: The key principles of the Fit-for-Purpose approach to land administration (Enemark, et al.,2016).

KEY PRINCIPLES		
Spatial framework	**Legal framework**	**Institutional Framework**
▪ Visible (physical) boundaries rather than fixed boundaries; ▪ Aerial / satellite imagery rather than field surveys; ▪ Accuracy relates to the purpose rather than technical standards; ▪ Demands for updating and opportunities for upgrading and ongoing improvement.	▪ A flexible framework designed along administrative rather than judicial lines; ▪ A continuum of tenure rather than just individual ownership; ▪ Flexible recordation rather than only one register; ▪ Ensuring gender equity for land and property rights.	▪ Good land governance rather than bureaucratic barriers; ▪ Integrated institutional framework rather than sectorial silos; ▪ Flexible ICT approach rather than high-end technology solutions; ▪ Transparent land information with easy and affordable access for all.

The key point is that the systems should enable secure land rights for all and cover all land as a basis for land valuation and land use control. At the outset, the systems may vary from being very simplistic in some (rural) areas of the country while other (densely populated) areas are covered by more accurate and legally complete applications, especially where land is of high value and in short supply. Through updating and upgrading procedures, the systems can then, in turn, develop into modern and fully integrated systems for land information and administration, where appropriate. The systems should also allow for recording and securing all types of land rights including informal and social kind of tenures. The legal and institutional frameworks have to be adapted to allow for this kind of flexibility and accessibility for all. This change process necessary for implementing a FFP approach to existing land administration systems can start today. The three framework components are described in detail in (Enemark, et al., 2016). In brief, they include the following:

5.1.1 The spatial framework

The spatial framework should predominantly be developed using aerial / satellite imagery for identifying the way land is occupied and used - rather than using field surveys. The imagery will show the actual physical boundaries and, in most cases, these visible boundaries are sufficient for identifying and securing the land right (see Figure 6). By using geo-referenced imagery the identified boundaries can subsequently be vectorised and used as a cadastral index map

Figure 6: Example from Rwanda showing aerial imagery (left), from which the parcel boundaries are easily identified (right). This is essentially a participatory approach undertaken by locally trained land officers Source: Didier Sagashya, Rwanda

Conventional field surveys, handheld GPS or cell phone recording methods may of course be used where relevant, e.g. to identify non-visible boundaries or to capture the situation in dense high value urban areas. The scale and accuracy of the aerial imagery should relate to purpose and will therefore vary according to topography and density of development. The resulting spatial framework can easily be updated and also upgrading over time or whenever relevant, e.g. in relation to implementation of major infrastructure or land development schemes or when boundary disputes occurs.
The process for providing the spatial framework will include the following steps:

i. Producing the aerial imagery at scales according to topography, land use, and building density;
ii. Using the aerial imagery in the field to identify, delineate and adjudicate parcel boundaries (general boundaries), which can be drawn directly on the imagery and the parcels be numbered for reference to the connected land rights;
iii. The resulting boundary framework can be digitized from the imagery to create a digital cadastral map to be used as a basic layer in the land information system or in combination with the satellite imagery.
iv. Alternatively, boundaries can be digitized directly from tablets or other mobile devices uploaded with ortho-rectified aerial or high resolution satellite images. However, this may still require final printing display of the map and validation by parcel owners.

It is always assumed that existing cadastral boundaries are more accurate than new boundaries created using FFP LA. In practice, this assumption may not hold, more especially in countries where crude methods were used to generate cadastral maps in a sporadic manner. FFP LA techniques may produce cadastral maps of better quality in terms of internal consistency and adjacency. In Uganda for example, it became cumbersome to digitize several cadastral maps which had no georeferenced information, or lacked internal consistency or had not been drawn to scale.

Where it is confirmed that significant quality variations exist between existing cadastral boundaries and FFP LA generated boundaries, some measures should be taken to manage the situation. One option would be to build a single system that incorporates parcel boundaries from FFP LA and the existing cadastral boundaries. In this case, information should be included in the database to indicate the techniques used to generate each boundary, and this may be entered as meta-data. Whenever there is an upgrade in the boundary, for example during subdivision, the metadata record should be edited to reflect the change.

Another approach would be to include FFP LA parcel boundaries in the same system but in an independent thematic layer. This results in two cadastral layers of varying quality but resident in the same database. Such a solution needs to be considered during system design to cater for management of transactions from cadastral information in two separate thematic layers. A quality control mechanism needs to be instituted to migrate data from the less accurate layer to the more accurate layer when need arises. This latter approach is being considered in Uganda to integrate data on cadastral boundaries of differing accuracy, mainly from customary tenure on one hand and freehold, leasehold and mailo, on the other hand. The last option is to run two parallel systems with a future plan of merging them. This option is more expensive and presents technical challenges.

5.1.2 The legal framework

The legal framework should be simple, flexible, and designed for decentralized administration rather than judicial decisions. The legal system must be adapted to accommodate the various kinds of land rights and social tenures that do exist rather than just focusing on land titling, ownership and leasehold. The various tenure systems must be enshrined in the land laws. This should allow for security of tenure within various kinds of communities and thereby enable secure land rights for all. The Continuum of Land Rights (UN-Habitat/GLTN, 2008), see Figure 7, and the Social Tenure Domain Model (FIG/GLTN, 2010) should be applied, which provides a standard for representing the people to land relationships independent of the level of formality, legality and technical accuracy. Such flexibility also relates to the recordation that should be organized at various levels rather than through one central register. In Uganda for example, the Land Act 1998, provides for registration of Freehold, Mailo and Leasehold Titles by Registrars at Ministry Zonal Offices and registration of customary and occupancy rights at the subcounty level by recorders. This scenario creates parallel registers at various levels of government. The Ministry of Lands Housing and Urban Development is exploring the use of technology to build an integrated system that facilitates registration of Titles at the Ministry Zonal Offices while permitting recordation of customary land rights at the sub-country. The resulting information is in one system regardless of where registration takes place.

Finally, the principle of gender equity should apply and should be seen first and foremost as a universal human right, independently of any other argument in favour for it.

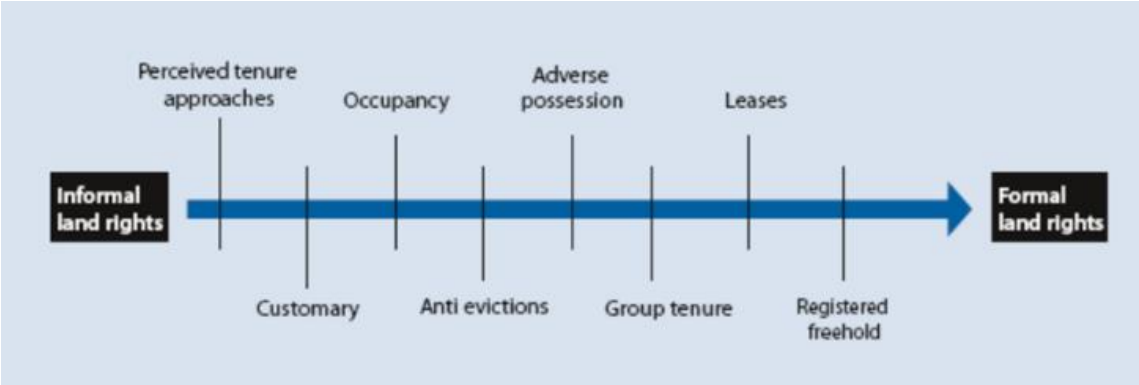

Figure 7: Continuum of land rights (UN-Habitat / GLTN, 2008).

5.1.3 The institutional framework

The institutional framework should be designed for administering the rights in land along with issues related to land valuation and taxation, land use and development. The principles of good land governance should be applied, which prescribes that governments should be legitimate, transparent, accountable, equitable and dedicated to integrity (UN-FAO, 2007).

Furthermore, the Principles of the Voluntary Guidelines for Responsible Governance of Tenure (UN-FAO, 2012) should be applied to ensure efficient, transparent administration of land rights and information with easy access for all. The Guidelines outline principles and practices that governments can refer to when making laws and administering land, fisheries and forests rights. While the Guidelines acknowledge that responsible investments by the public and private sectors are essential for improving food security, they also recommend that safeguards be put in place. These protect tenure rights of local people from risks that could arise from large-scale land acquisitions (land grabbing), and also to protect human rights, livelihoods, food security and the environment. With the help of the Guidelines a variety of actors can determine whether their proposed actions and the actions of others constitute acceptable practices.

Importantly, administration and management of the land administration activities should be organized in a holistic perspective aiming to treat land and natural resources as a coherent whole rather than in isolated sectorial silos. Fundamental to this is the early formulation of a national land policy that provides guidance for a coherent administration of land issues across sectors and provides benefits to society, businesses and citizens. The institutions should be underpinned by a flexible ICT-infrastructure and consider alternatives, such as the use of open source solutions.

Finally, the institutions should be fully decentralised and as close to the land rights holders as possible. Decentralised land institutions facilitate provision of land services such as registration, dispute resolution, access to land information in a timely manner, at a low cost. Provisions in the legal framework should permit involvement or co-option of legitimate persons such as credible elders, religious and opinion leaders during adjudication and dispute resolution.

5.2 Key lessons for Implementation of Fit for Purpose Land Administration in Africa

Case 1: Land Tenure Regularisation in Rwanda (Enemark, et al., 2014, p.27)

Rwanda implemented a well-functioning Land Information System through a land reform program called Land Tenure Regularisation. Nationwide systematic land registration started after piloting in 2009. The goal was to provide legally valid land documents to all rightful landholders and the program was completed in 2013. A general/visible boundaries approach was used and data were collected in a highly participatory manner. For provision of geospatial data, high-resolution orthophotos and satellite imagery was used.

Teams of locally recruited and specially trained local staff outlined the parcel boundaries on the imagery printouts that were scanned, geo-referenced and digitised. Printouts of the parcel plans became part of the legal parcel ownership document. The non-spatial data relating to owners' rights and particulars were captured in claim registers by legally constituted adjudication committees.

The information from the registers was entered into the Land Tenure Regularisation Support System, from which titles were processed and printed for first issuance. A Land Administration Information System is used for processing transactions and for updating the register. In May 2013, about 10.4 million parcels were registered and 8.8 million of printed land lease certificates had been issued. The unit costs were about 6 USD per parcel (that is of course subject to specific country conditions).

The expected achievements for Rwanda are social harmony arising from reduced land conflicts and secure tenure, increased investment in land, greater land productivity and an increased contribution of land as an economic resource towards national development.

Case 2: Systematic Land Adjudication and Demarcation in Uganda

The Government of Uganda launched a National Land Policy in 2013, which laid ground to the land rights administration framework aiming to ensure efficient, equitable and optimal utilization and management of Uganda's land resources for poverty reduction, wealth creation and overall socio-economic development. Among the several strategies to achieve this goal is systematic demarcation and certification of both individual land parcels and those of groups that subscribe to communal land ownership (Chapter 4 section 40. Alongside the National Land Policy is the Land Sector Strategic Plan [LSSP II] which also emphasizes the protection of rights through the demarcation and certification of communal land rights as well as the need to converge state and traditional systems of land administration, particularly with regard to the certification of land rights, the empowerment of decentralized institutions in land rights administration, and the management of land as a resource at the local level.

In Uganda, cadastral surveying for property definition is governed by the Survey Act of 1939, and survey regulations which set very complicated procedures for field observations, checking and compilation of cadastral maps. Cadastral surveying and processing of the final survey plan (deed-plan) to support preparation of a land title is a lengthy and expensive procedure that takes between one and six months and may cost the landowner between US $ 400 - US$ 1,300. Processing of the final certificate may cost the same amount or even more. Hence Uganda has only managed to survey and title less 20% of the land, amidst increasing cases of land grabbing. It has been reported that land disputes dominate the backlog of court cases at all levels and land is normally the cause of most criminal cases such as (murder and assault) registered at the police units (See Rugadya 2009).

The Government of Uganda, through World-bank funding implemented the Competitive Enterprise Development Project (CEDP), which resulted in establishment of a country-wide Land Information System. One of the components of the project is systematic land adjudication and certification (SLAAC) to generate 800,000 freehold titles in rural areas and 100,000 titles in peri-urban areas. SLAAC has employed a fit-for-purpose methodology as the only feasible alternative to generate the required targets. SLAAC involves the following activities:

(i.) Rapid physical planning of adjudication areas at district and sub-county level
(ii.) Mobilisation and sensitisation though radio programs and parish / village-level meetings
(iii.) Training of adjudication and mapping teams comprised of local area land committees
(iv.) Mapping of parish boundaries
(v.) Adjudication and Mapping using tablets installed with ortho-rectified aerial images at 40cm spatial resolution.
(vi.) Dispute resolution
(vii.) Compilation and display of village cadastral index maps,
(viii.) Correction of errors, and
(ix.) Processing of Title documents

Apart from the SLAAC programme, a number of other projects supported by various development partners have employed FFP LA to generate parcels and land rights information, but mainly focusing on customary land, to process certificates of customary ownership. There are over 5 NGOs and Civil Society organisations supporting government to map customary and occupancy land rights using FFP LA approach.

All the NGOs involved in land rights documentation use comparable tools for capture of land rights. The tools generally include both a mapping component for generating parcel boundaries and land rights component for capturing ownership and rights information. There is a high level of standardisation in the attributes captured by each tool given that each tool must include as a minimum, attributes defined in the standard forms that form annexes of the Land Regulations. Figure 8 shows an example of CRISP data capture tool that is being used by GIZ to map and document occupancy land rights in Central Uganda. Uganda therefore has both experience and political will to implement FFP LA as a feasible solution for securing the rights of all land owners in Uganda. However, the current efforts are scattered across various NGOs partnering with government to secure tenure rights in a peace-meal manner. In order to prepare for a national-wide project for mapping and documenting land rights for the entire country using FFP LA, the government, through funding from UN-Habitat has prepared a national strategy for implementation of FFP LA. Under the strategy, Uganda anticipates to achieve a national coverage within a period of 10 years at a cost of USD 10 per parcel.

Figure 2: CRISP Tool for Mapping and capturing land rights data in Central Uganda (Source GIZ, Mityana Project Office)

5.3 Lessons Learnt from the Experience of Rwanda and Uganda.

The two cases demonstrate that Fit for Purpose Land Administration is a feasible undertaking with potential to address long standing tenure security issues in a country. The experience in Rwanda demonstrates that a consistent and a reasonably accurate spatial framework can be established using FFP LA techniques and this can be continuously upgraded as need arises, for example during sub-division of parcels. Such a flexible system has reduced the duration of land transactions from several months to 1-4 days. The impact of land documentation has been felt in all sectors and overall, it has led to improvement of world ranking of Rwanda in the ease of doing business from 143 in 2008 to 29 in 2018 (Economics, 2019) and the 2nd in Africa, after Mauritius(Ranked as 20). Rwanda now ranks better than all the countries in the region (see table 3) in terms of easiness of doing business.

Table 3: Easy of doing business among the countries in the Eastern Africa Region

Country	**World Rank as of December 2018**
Rwanda	29
Kenya	61
Uganda	127
Tanzania	144
Ethiopia	159
Burundi	168
DRC	184
South Sudan	185

Source:https://tradingeconomics.com/country-list/ease-of-doing-business?continent=africa accessed 16th Aug 2019

Finally, the experience demonstrates that genuine political will is essential in implementing a Fit for Purpose Land administration programme at national level.

The Uganda experience slightly differs from Rwanda given that FFP LA projects are implemented by government in partnership with Civil Society Organisations. With such a diversity in the players, there is need for standardisation and coordination at the national level. Standardisation ensures that data generated from each individual project is of comparable quality and can be integrated in a national land information system. The civil society institutions formed a working group that discusses cross-cutting issues including standardisation.

Uganda has also made some attempts to incorporate rapid physical planning appraisal (RAPPA) as part of each project. RAPPA is a rapid way of undertaking *fit for purpose* physical planning to avoid delaying land adjudication and demarcation processes. In Rwanda, the approach began with titling and considered physical planning later, while updating the spatial framework. This approach ensured faster achievement of land reform goals but has presented challenges of adjusting parcels during physical planning.

The country-level approach adopted in Rwanda where the project covered all the parcels across the entire country resulted in security of tenure for all without any discrimination. It entailed an element of compulsion where all land owners were required to participate. In Uganda, the approach of scattered projects may not yield timely results in a cost effective manner given that considerable effort has to be invested in coordination, harmonisation and duplication of effort. Furthermore, the approach in Uganda is based on free prior informed consent (FPIC), which requires heavy investment in sensitisation, persuasion and mobilisation of land owners. In some cases, individual land owners may be reluctant to participate in the project. The adjudication and demarcation teams have no option but to unwilling landowners until they make up their mind. This makes the process semi-systematic/sporadic and hence more costly.

There is generally good political will to implement universal land titling in Uganda. However, successful implementation of FFP LA administration necessitates commitment and support of politicians from all divides to avoid any likelihood of conflicting messages to the landowners. Cases of negative publicity as a result of disagreements by politician have been reported for some projects in Uganda.

6.0 KEY DEMANDS FOR IMPLEMENTATION

The FFP approach aims to build countrywide land administration systems providing secure tenure for all. However, within the country context, some areas may be difficult to cover, and there may be some specific legal or institutional issues that call for further consideration. In this regard, implementation of the FFP approach should not be held back for solving some specific issues, when the major part of the country, say 80 per cent, can be covered straight forwardly using this approach. The remaining, say 20 per cent, can then be completed once the specific issues are solved. More generally, this 80/20 per cent distribution is known as the Pareto principle.

A key demand for implementation, of course, relates to developing the necessary capacity for building and maintaining the systems. It is critical to ensure that the systems can be maintained immediately and properly in terms of ongoing updating so that the systems are complete and reliable at any time. Therefore, a capacity development strategy should be adopted up front before starting the project. Another demand is about assessing the costs and

establishing the budgetary base for building the systems, e.g. by seeking development aid support such as through the World Bank. And, most importantly, there is a fundamental requirement for strong political commitment and leadership for adopting the project and keeping it on the track for achieving the goals and outputs in terms of benefits for society, businesses and citizens. However, recent experiences have shown that it is possible – as shown in the case of Rwanda and Uganda above.

The FFP approach is participatory and inclusive – it is fundamentally a human rights approach. Further benefits relate to the opportunity of building appropriate systems within a relatively short time and for relatively low and affordable costs. This will enable political aims such economic growth, social equity and environmental sustainability to be better supported, pursued and achieved.

7.0 CONCLUDING REMARKS

Most developing countries are struggling to find remedies for their many land problems that are causing land conflicts, reducing economic development and preventing their countries reaching their true potential. The FFP approach provides developing countries with a new, innovative and pragmatic solution to land administration. The country specific solution is directly aligned with immediate needs, is affordable, is flexible to accommodate different types of land tenure and can be upgraded when economic or social requirements and opportunities arise. The FFP approach is highly participatory; it is quickly implemented and provides security of tenure for all. Most importantly, the FFP approach can start very quickly using a low risk entry point that requires minimal preparatory work.

The politicians and decision makers in the land sector are key in this change process and need to become advocates of change through understanding the social, environmental and economic benefits of this journey of change. This top-level support for change will then allow any barriers to changes in the legal framework and the professions to be dismantled. However, in many developing countries, land issues are highly political and controversial. Therefore, drivers for change cannot just be designed at the highest levels, but will have to be initiated through influencers at other entry points in the network of stakeholders across the land sector; and written in a language that they can understand.

The UN family of organizations has a significant role to play in this advocacy for change. GLTN will have a pivotal role in disseminating the messaging for change and providing tools to support change. The World Bank, UN-GGIM, UN-HABITAT and UN-FAO should ensure that the land administration projects they support are designed around FFP by default. The FFP approach for land administration directly supports the implementation of the VGGTs. There are opportunities for the FFP approach for land administration to be used innovatively in areas of priority for the UN, such as post-conflict situations. Support of these high profile applications of FFP will help to promote the importance and gain support for the FFP approach.

Effective capacity building is fundamental to success. Society must understand that these simpler, less expensive and participatory methods are just as effective and secure as conventional surveying methodologies. Formal organizations such as government agencies, private sector organizations and informal organizations, such as community based or voluntary organizations, need to ensure the awareness and up-to-date skills of their members and staff. Although there are short-term training needs to effect FFP approaches in land administration, there is a longer-term capacity building initiative required to create a new

generation of land professionals who have deep understanding of the FFP approach to land administration and the ICT management of land.

It is hoped that the FFP approach as presented in this paper will pave the way forward towards implementing sustainable and affordable land administration systems enabling security of tenure for all and effective management of land use and natural resources. This, in turn, will facilitate economic growth, social equity, and environmental sustainability.

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