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Guiding Principles

Enemark, Stig; McLaren, Robin; Lemmen, Christiaan

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Building Fit-For-Purpose Land Administration Systems: Guiding Principles

Stig ENEMARK, Denmark,
Robin MCLAREN, United Kingdom, Christiaan LEMMEN, the Netherlands

Key words: Fit-For-Purpose, Land Administration,

SUMMARY

This paper describes the key principles for building sustainable and Fit-For-Purpose (FFP) Land Administration Systems especially in developing countries where often less the 10 per cent of the land and population is included in the formal systems. New solutions are required 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. It is argued that the FFP approach is the only viable solution to solving the global security of tenure divide.

This FFP approach has been recognized and supported by FIG and the World Bank (FIG/WB, 2014). UN-HABITAT / GLTN has decided to elaborate this approach further by initiating a project in cooperation with Dutch Kadaster on developing a Guide for Fit-For-Purpose Land Administration in collaboration with key partners. This paper presents the conceptual outcome of this project. The resulting GLTN publication will be launched at the FIG Working Week, Christchurch, New Zealand, May 2016.

The FFP approach has three fundamental characteristics. Firstly there is a focus on the purpose and then on how to design the means for achieving it as well as possible; secondly, it requires flexibility in designing the means to meet the current constraints; and, thirdly, it emphasizes the perspective of incremental improvement to provide continuity.

The concept includes three core components: the spatial, the legal, and the institutional frameworks, and each of the three frameworks is underpinned by a set of four guiding principles that are unfolded in some detail. The three frameworks are interrelated and form a conceptual nexus underpinned by the necessary means of capacity development. Each of the frameworks must be sufficiently flexible to accommodate and serve the specific needs of the country within different geographical, judicial, and administrative contexts.

The fit-for-purpose 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 as economic growth, social equity and environmental sustainability to be better supported, pursued and achieved.

Building Fit-For-Purpose Land Administration Systems: Guiding Principles

Stig ENEMARK, Denmark,
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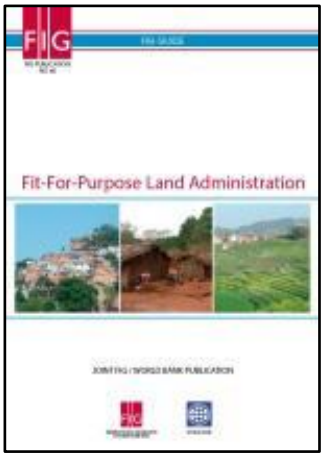
1. INTRODUCTION

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. In fact the beneficiaries have often been the elite and organizations involved in land grabbing. It is time to rethink the approaches. New solutions are required 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 especially in developing countries where often less the 10 per cent of the land and population is included in the formal systems. It is argued 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 also 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. The core elements of the FFP approach are laid down in joint FIG/WB declaration (FIG/WB, 2014) that includes the following statement:



"There is an urgent need to build cost-effective and sustainable systems, which identify the way land is occupied and used and accordingly provide for secure land rights. When considering the resources and capacities required for building such systems in developing countries, the concepts of mature, sophisticated systems as predominantly used in developed countries may well be seen as the end target, but not as the point of entry. When assessing technology and investment choices, the focus should be on a "Fit-For-Purpose approach" that will meet the needs of society today and that can be incrementally improved over time."

In 2014 UN-HABITAT / GLOBAL LAND TOOL NETWORK (GLTN) decided to elaborate this approach further by initiating a project in cooperation with Dutch Kadaster on developing a Guide for FFP Land Administration in collaboration with key partners. This should underpin the GLTN land tool development activities and enable implementation of sustainable land administration systems in developing countries at scale (UN-HABITAT, GLTN, 2012). The project was completed end of 2015 and the result is published as a reference document on the GLTN website referred to in this paper as (Enemark, et al., 2015). This paper draws from the Guide and presents an overall understanding of FFP concept.

The process of adopting the FFP approach to create countrywide land administration solutions is not just focused around technical issues, but also involves a series of changes to the institutional and legal & regulatory frameworks. A typical change process would initially create an enabling environment with the flexibility necessary for FFP approaches and would require the eventual removal of any legacy barriers and constraints. This is illustrated in the transition process examples in Table 1 below:

Before	After
Limited range of tenure types supported.	Rather than exclusively focusing on individual land titling process, a continuum of land rights approach is supported.
Specification for high accuracy surveys mandated in regulations.	Flexible regulations accommodating a range of methods to measure and record special unit boundaries, including visual boundaries.
Licenses restricting operations in the land sector.	A range of stakeholders can legally operate in the land sector, including locally trained land officers acting as trusted intermediaries.
Predominantly judicial on**ly processes.**	The majority of land transaction processes are administrative.
Gender inequity.	The legal framework and associated processes are gender sensitive.
Fragmented land institutions.	Land administration institutions are integrated and coordinated.
Lack of information in the delivery of land administration services.	All stakeholders have access to reliable land information within the constraints of privacy.
Insufficient capacity to sustain land administration solutions.	Capacity of stakeholders is enhanced.
Private sector excluded from participation in the land sector.	Public-Private partnerships are improved.

Table 1. The FFP transition process (Enemark, et al., 2015; UN-HABITAT, GLTN, 2016).

This Guide is primarily designed to allow a range of stakeholders in developing countries to understand, form an opinion, recognize the benefits and make a decision on adopting the overall FFP approach. The Guide also provides guiding principles on building the spatial, legal and institutional frameworks in support of designing the country specific strategies for implementing

FFP land administration. The Guide is not an instruction manual for implementing the FFP approach in a country as the strategy and implementation methods will be country specific.

This Guide is not a manual. Instead, it provides guiding principles for building Fit-For-Purpose land administration systems. These principles should not be interpreted as prescriptive, but should provide direction and guidance on building the spatial, legal and institutional frameworks in support of designing the country specific strategies for implementing FFP land administration. This process is illustrated in Figure 1 below.

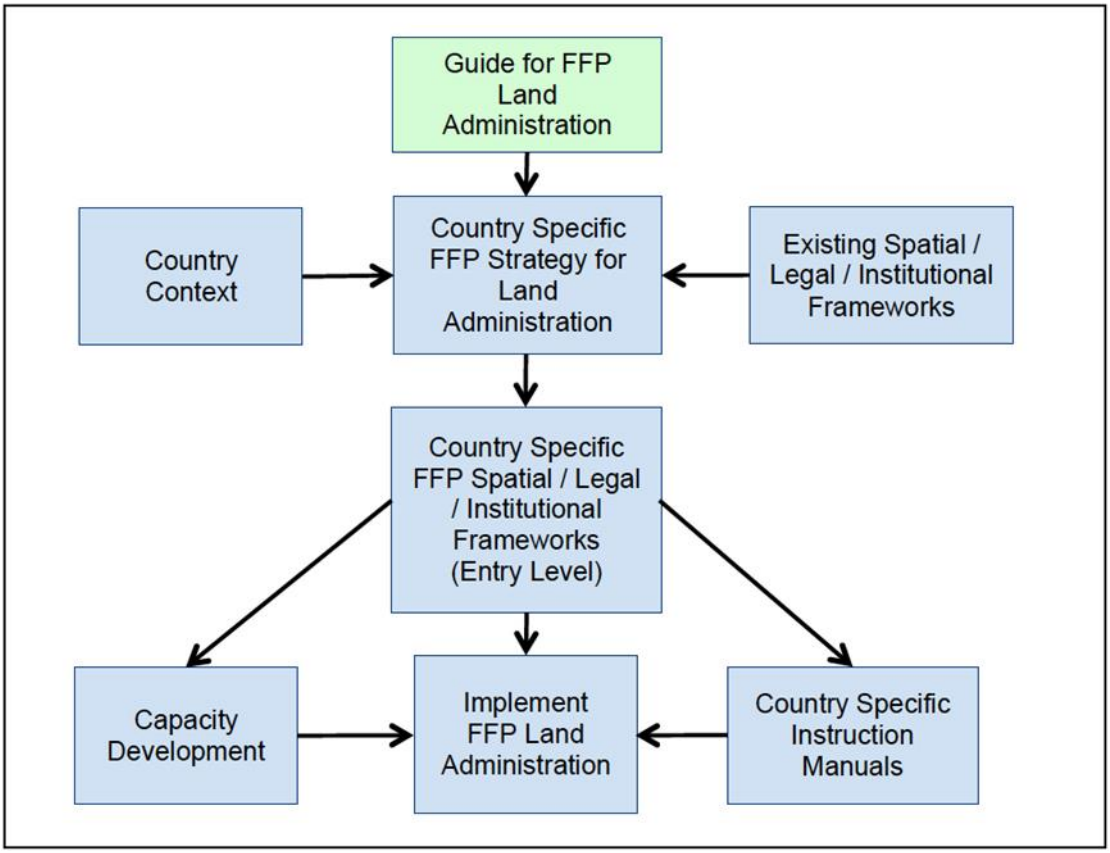


Figure 1. The use of the Guide for implementing country specific FFP land administration. (Enemark, et al., 2015)

The country specific FFP strategy for land administration will be based on a country context analysis and the baselines of the existing spatial, legal and institutional frameworks. The country context analysis will involve identifying the conditions and policies prevalent within country that constrain and shape the way that FFP land administration can be implemented within the country. An analysis of the existing spatial / legal / institutional frameworks will define the current approaches and identify any constraints for change. This Guide will then be used as a set of guiding principles to create the country specific strategy for building the spatial, legal and institutional

framework for implementing FFP Land Administration that will also require provision of capacity development measures as well as country specific manuals.

The Guide has the following target audience: (i) Advocates: UN organisations; donor community; politicians; (ii) Policy & Strategy Makers: Senior civil servant decision makers involved in formulating policies in the land sector; senior level staff in land administration / management agencies; (iii) Implementers: Public and private sector land professionals involved in land administration; NGOs / CSOs.

2. LAND GOVERNANCE AND THE GLOBAL AGENDA

Land governance is about the policies, processes and institutions by which land, property and natural resources are managed. 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. The operational component of the land governance concept is then the range of land administration functions that 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, 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 (Enemark, 2004; Williamson, et al., 2010).

Land governance and administration is basically about people – it is about the relation between people and land places, and the policies, institutions and regulations that govern this relationship.

The global agenda as set by the Millennium Development Goals (MDGs) expired at the end of 2015. This agenda served the world well as a focal point for governments to reduce poverty and improve the lives of poor people. The progress in meeting the goals was monitored and published yearly as a global incentive. For example, the 2014 progress report showed that the extreme poverty rate had been halved and Goal 1 was thereby met at a global scale – but with huge regional deviations, e.g. the Sub-Sahara Africa region lagged far behind (UN, 2014a).

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. While the MDGs did not mention land directly, the new SDGs include six goals with a significant land component mentioned in the targets. (UN, 2014b). These

goals and targets will never be achieved without having good land governance and well-functioning country wide land administration systems in place - see also (Enemark et al., 2015).

Against this backdrop there is a strong request for building basic and fit-for-purpose land administration systems in developing countries where often less than 10 per cent of the land is included in the formal systems. The 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 through monitoring and assessment. This calls for a "data revolution" for sustainable development to empower people with information on the progress towards meeting the targets (UN, 2014a).

3. UNDERSTANDING 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. The FFP approach, as illustrated in Figure 2 below, has three fundamental characteristics:

(i) 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

(ii) 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.

(iii) 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 3 below). Each of the three frameworks has four corresponding key principles as presented in Table 2 below.

The FFP Concept. The 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. See Figure 3 below.

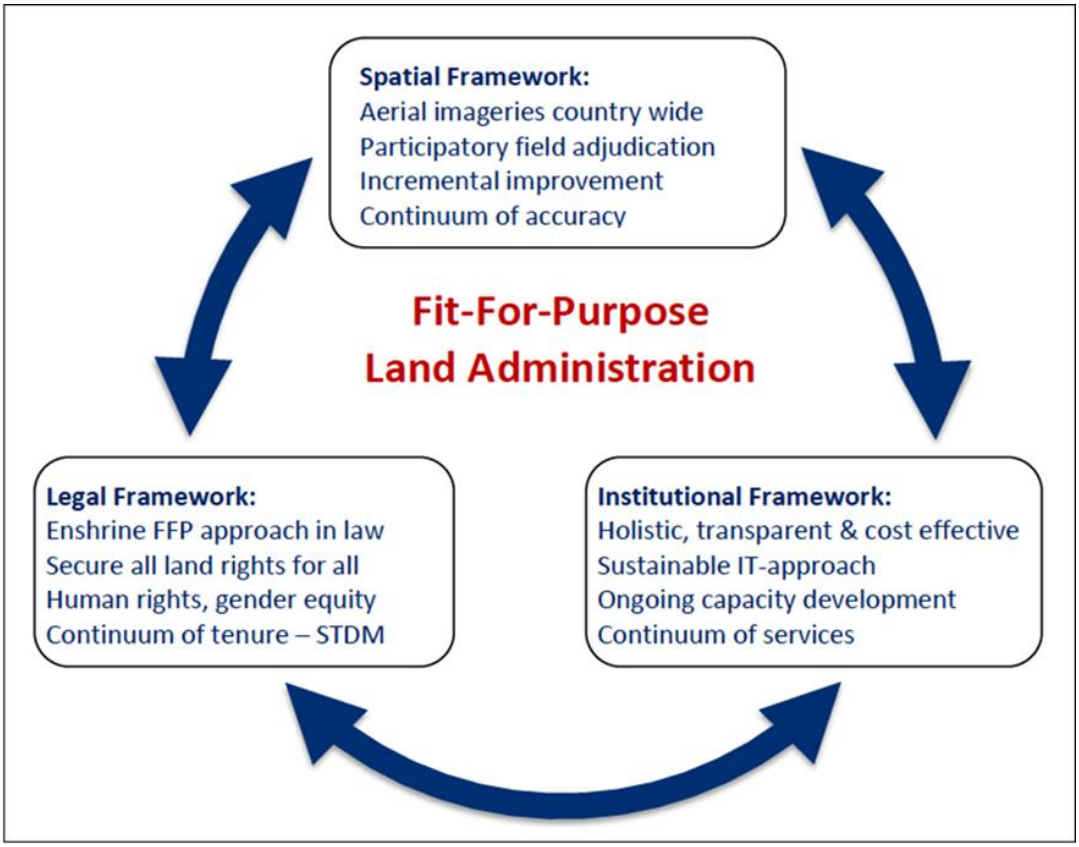


Figure 3. The Fit-For-Purpose Concept (Enemark, et al., 2015)

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.

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

Table 2. The key principles of the Fit-for-Purpose approach (Enemark, et al., 2015).

As stated above, this Guide is not a manual. Instead, it provides guiding principles for building country specific land administration systems. Therefore, importantly, these principles should not be interpreted as prescriptive, but should provide direction and structured guidance for building the frameworks.

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 also 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., 2015). In brief, they include the following:

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 rights. By using georeferenced imagery the identified boundaries can subsequently be vectorised and used as a cadastral index map. 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 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 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. And, of course, 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

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 Responsible Governance of Tenure (UN-FAO, 2012) should be applied to ensure efficient and transparent administration of land rights and land information with easy access for all. 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.

Case: Land Tenure Regularisation in Rwanda

Rwanda implemented a well-functioning Land Information System through a 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.

E. Nkurunziza and D. Sagashya, Rwanda Natural Resources Authority

Field data acquisition in Rwanda

4. KEY DEMANDS FOR IMPLEMENTATION

The FFP approach aims to build country wide 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, once they are built,

can be properly and immediately maintained 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 above.

New approaches have recently been tested in implementing countrywide land administration solutions in countries such as Rwanda (Sagashya and English, 2009), Ethiopia (Abza et al., 2015), in the Europe and Central Asia region (Suha et al., 2014), in the South East Asia region (Bell, 2009), and also in many Eastern European Countries in the 1990s when undergoing a transition from centrally planned to market based economies (Adlington et al., 2009). See also, more globally (Burns, 2007); Williamson et al., 2010; and Zevenbergen et al., 2015).

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.

5. 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. It is highly participatory, can be implemented quickly and will provide 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 – and more comprehensively in (Enemark, et al., 2015) – 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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BIOGRAPHICAL NOTES

Stig Enemark is Honorary President of the International Federation of Surveyors, FIG (President 2007-2010). He is Professor of Land Management at Department of Development and Planning, Aalborg University, Denmark.
Email: enemark@land.aau.dk
Web: http://personprofil.aau.dk/100037?lang=en

Robin McLaren is director of the independent consulting company Know Edge Ltd, UK. He has supported many national governments in formulating land reform programmes and National Spatial Data Infrastructure (NSDI) strategies.
Email: robin.mclaren@KnowEdge.com
Web: www.KnowEdge.com

Christiaan Lemmen is international consultant at Kadaster International, the Netherlands. He is chair of the Working Group 7.1 "Fit-For-Purpose Land Administration" of FIG Commission 7, and director of the FIG Bureau of Land Records and Cadastre, OICRF.
Email: Chrit.Lemmen@kadaster.nl
Web: http://www.itc.nl/resumes/lemmen