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## Guiding Principles for Building Fit-For-Purpose Land Administration Systems in Developing Countries

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*Published in:*  
Recovery from Disaster

*Publication date:*  
2016

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

### *Citation for published version (APA):*

McLaren, R., Enemark, S., & Lemmen, C. (2016). Guiding Principles for Building Fit-For-Purpose Land Administration Systems in Developing Countries: Capacity Development, Change Management and Project Delivery. In Recovery from Disaster: FIG Working Week 2016, Christchurch, New Zealand, 2-6 May, 2016 FIG - International Federation of Surveyors.

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# **Guiding Principles for Building Fit-For-Purpose Land Administration Systems in Developing Countries: Capacity Development, Change Management and Project Delivery**

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**Key words:** land administration, fit-for-purpose, scalable solutions, participatory, affordable

## **SUMMARY**

Most developing countries are struggling to find remedies for their many land problems that are often causing land conflicts, reducing economic development and preventing countries reaching their true potential. Existing investments in land administration have been built on legacy approaches and have not delivered the required pervasive changes and improvements at scale. Solutions have not helped 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 approaches and issues associated with implementing FFP land administration, including change management, capacity development and project delivery.

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## **1 INTRODUCTION**

Most developing 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 FFP approach has been recognized and supported by FIG and the World Bank and is described in a joint FIG and World Bank 2014 publication (FIG/WB, 2014). UN-HABITAT / Global Land Tool Network (GLTN) decided to elaborate this approach further by initiating a project in cooperation with Kadaster on developing Guiding Principles for FFP Land Administration in collaboration with key partners (Enemark, et al, 2015). This guide underpins the GLTN land tool development activities and enables implementation of sustainable land administration systems in developing countries at scale.

This paper describes the approaches and issues associated with implementing FFP land administration solutions, including change management, capacity development and project delivery (Enemark, et al, 2015).

## **2 WHAT IS FFP LAND ADMINISTRATION?**

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 – see Figure 1.

The three framework components are interrelated and form a conceptual nexus underpinned by the necessary means of capacity development. Each of the frameworks must be sufficiently flexible to

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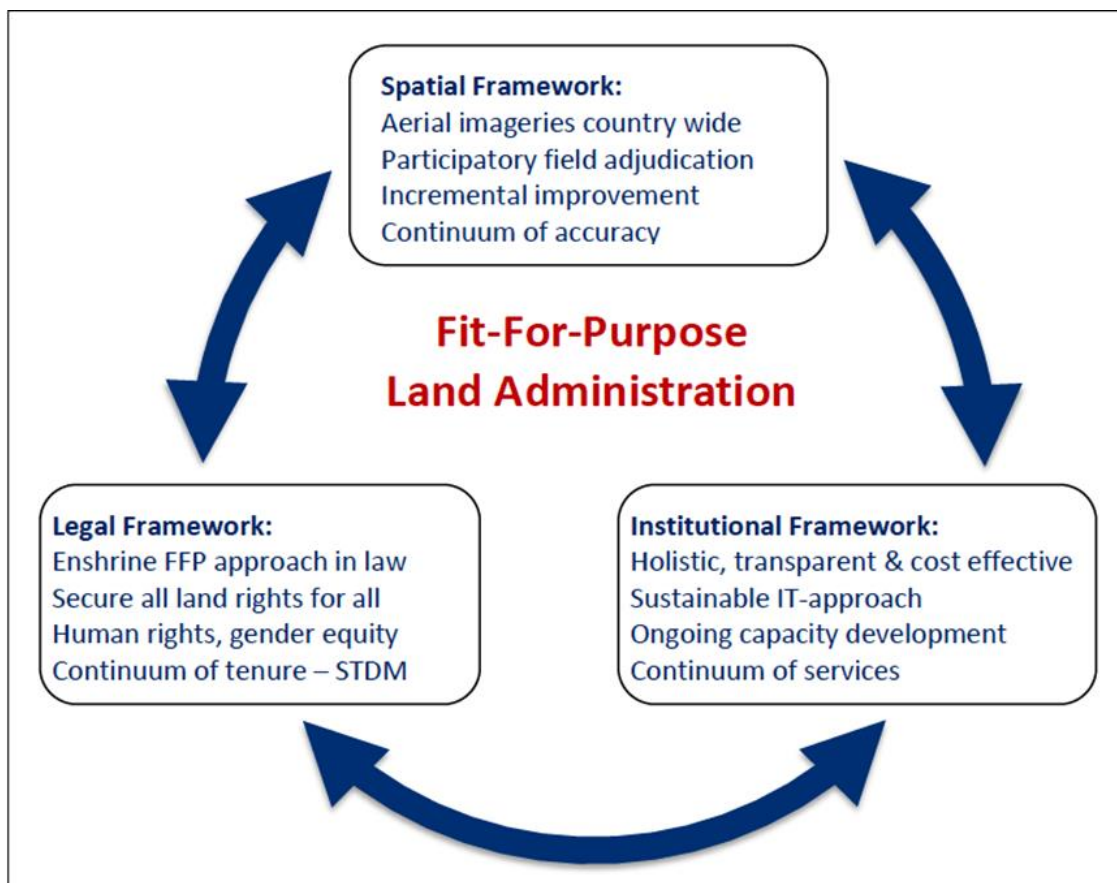
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accommodate and serve the current needs of the country within different geographical, judicial, and administrative contexts.



**Figure 1. The FFP 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 therefore 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 recognised then the legal framework will have to be modified to legally enshrine the tenure type, ICT solutions will have to be adapted to support

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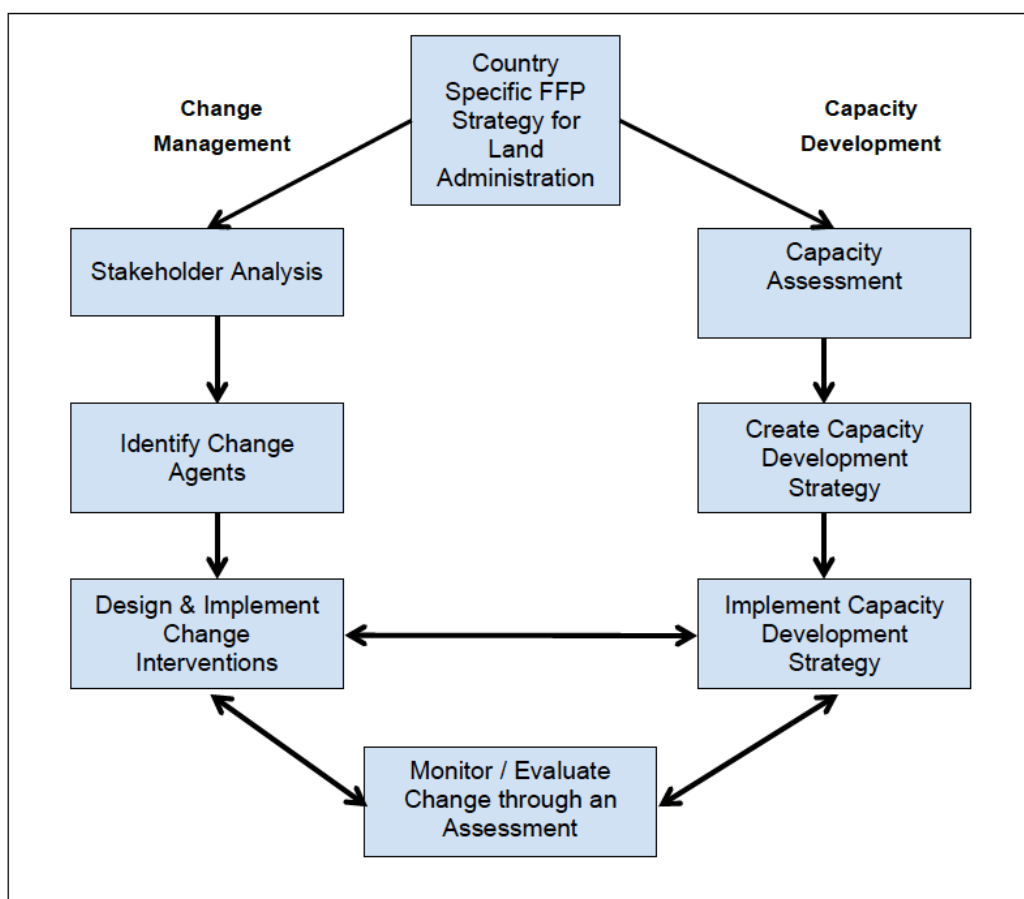
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overlapping rights and new relationships prevalent in social tenures, and data recording procedures in the spatial framework modified to capture these relationships.

### 3 CHANGE MANAGEMENT

The proposed change model is anchored on a participatory approach for strengthening capacity of land sector stakeholders to promote and implement FFP land administration policies, tools and approaches that are pro-poor, gender responsive, effective and sustainable. The model accommodates change interventions that are non-linear, dynamic and iterative and allows touch and entry points for change to be at several levels across the land sector. An assessment framework is used to monitor and evaluate the effectiveness of capacity building and change interventions and provide feedback for improvements. Catalytic support to invoke change is required and this is provided through identified change agents. The overall change process is supported by a context review, land sector assessment and an engagement / communications strategy that are an integral part of the Country Specific FFP Strategy for Land Administration. An overview of the change model is illustrated in Figure 2.



**Figure 2. Change Model for FFP Land Administration (Enemark, et al, 2015)**

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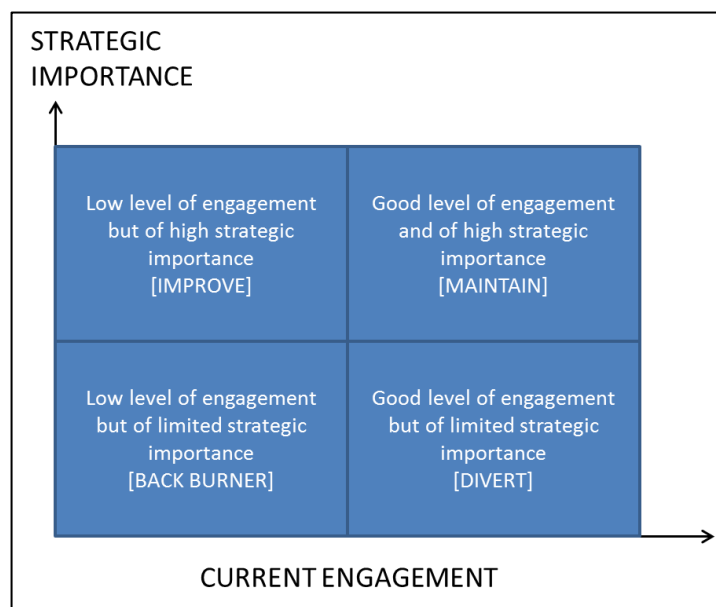
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The implementation of change across the land sector to achieve FFP land administration will involve triggering change interventions simultaneously at a number of entry points across the land sector. These interventions need to be synchronised with the corresponding capacity development activities to ensure the appropriate skills and knowledge are in the right place, and they need to be closely monitored and assessed to ensure they are delivering the agreed objectives. If the interventions are not delivering the expected change and associated benefits then the interventions need to be changed by increasing capacity or redesigning the intervention or closing it down. When initially introducing FFP land administration, the interventions will be dynamic, and the ‘sweet spots’ of change will have to be found quickly for maximum effect. This section describes the process of change management.

### 3.1 Stakeholder Analysis

The formulation of the country specific strategy for FFP land administration will have identified the stakeholders in the land sector. The next step is a process to assess each stakeholder as to how important they are to the FFP land administration initiative vs. how well they are currently engaged. This is best represented in a 2x2 matrix with the axes of ‘engagement’ and ‘importance’. See Figure 3.



**Figure 3. Stakeholder Prioritisation Matrix (Enemark, et al, 2015)**

Those with the lowest priority and the least amount of engagement to date will be situated in the lower left of the matrix. Those with the highest importance and the highest level of engagement will be in the top right hand corner. An individual person or organisation is placed precisely on the grid to allow different stakeholders in the same quadrant to be differentiated.

Generally those in the lower left and upper right can be left where they are as they are either already recognised for their importance and well engaged, in which case this needs to be maintained, or they are of little importance and so the fact that they are not that well engaged is not significant and can be placed on the “back burner”.

Stakeholders in the lower right quadrant where they are more engaged than their importance signifies, indicates that a stakeholder is keen to be involved, but has probably taken up more time than their importance would justify. Attention can therefore be diverted from them to more important stakeholders.

The real gap in engagement comes from those that are deemed important, but who lack effective engagement to date. This is the most important category in the upper left quadrant of the matrix and these key stakeholders need to be more engaged by the FFP land administration initiative.

### **3.2 Identify and Assess Change Agents**

Following prioritisation of the stakeholders, the next step is to identify the best change agents across the land sector. Catalytic support to invoke change is required and this is provided through identified change agents. Understanding the complexity of the country’s land sector requires an in-depth analysis of the various stakeholders, including individuals, organisations and initiatives. This includes their capacities and potential to influence power relations, their potential to create and share new knowledge and develop shared messages as well as sustaining relationships in land and other related sectors. Different stakeholders have different interests and motivations, which have to be analysed to determine how they can contribute to change resulting in the adoption and implementation of FFP land administration.

One of the most important tasks to be undertaken at the country level is to assess and choose entry points of projects and champions. A stakeholder assessment framework needs to be built from the change model that can be applied to assess the land champions, institutions and initiatives in the country.

### **3.3 Design and Implement Change Interventions**

Once the entry points of projects and champions have been identified and prioritised, the change initiative needs to be designed, resourced and implemented. Managing and monitoring these change interventions is essential to ensure that the interventions are delivering the expected change. Feedback on lower than expected performance should trigger a re-assessment, a re-design or closing down of the intervention.

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## 4 CAPACITY DEVELOPMENT

Implementing a FFP land administration system at a countrywide scale is demanding in terms of both financial and human resources. In developing countries the budgetary basis can often be established through international donor support from the World Bank and aid agencies that will also assist in designing the project and ensuring the interrelationship amongst goals and objectives, and inputs, processes and outputs. Furthermore, the need for human resources and skills must be assessed up front with regard to developing the various aspects of the land administration system and also with regard to the capacity for running and maintaining the system. Therefore, a strategy for capacity development is critical: “Don’t start what you can’t sustain”.

Capacity can be defined as “the ability of individuals and organisations or organisational units to perform functions effectively, efficiently and sustainably” (UNDP, 1998). This section presents an overview and understanding of capacity development at societal, institutional and individual levels, and provides advice for capacity development activities in support of implementing a FFP approach in the land sector. Capacity development, as illustrated in Figure 2, has three stages: capacity assessment, create capacity development strategy and implement capacity development strategy. These stages are described below.

### 4.1 Capacity Assessment

Capacity Assessment or diagnosis is an essential basis for the formulation of coherent strategies for capacity development. This is a structured and analytical process whereby the various dimensions of capacity are assessed within a broader systems context, as well as being evaluated for specific entities and individuals within the system. The publication “Capacity Assessment in Land Administration” (FIG, 2008) provides a methodology for such an in-country self-assessment of capacity needs, e.g. in relation to donor projects or land reform programmes.

Capacity assessment provides a baseline of current capabilities across the land sector stakeholders, e.g. public sector land institutions, private sector, professional associations and NGOs, for example. The baseline is then compared to the capacity requirements stated in the country specific FFP land administration strategy and gaps identified that have to be filled to support FFP land administration. This information is then used to create the capacity development strategy.

### 4.2 Create Capacity Development Strategy

Capacity development is a concept that is broader than Human Resource Development (HRD) since it includes an emphasis on the overall system, environment and context within which individuals, organisations and societies operate and interact. Even if the focus of concern may be on a specific capacity within an organisation to perform a particular function, there should always be a consideration of the overall policy environment. Capacity development does not, of course, imply that there is no capacity in existence; it includes retaining and strengthening existing capacities of

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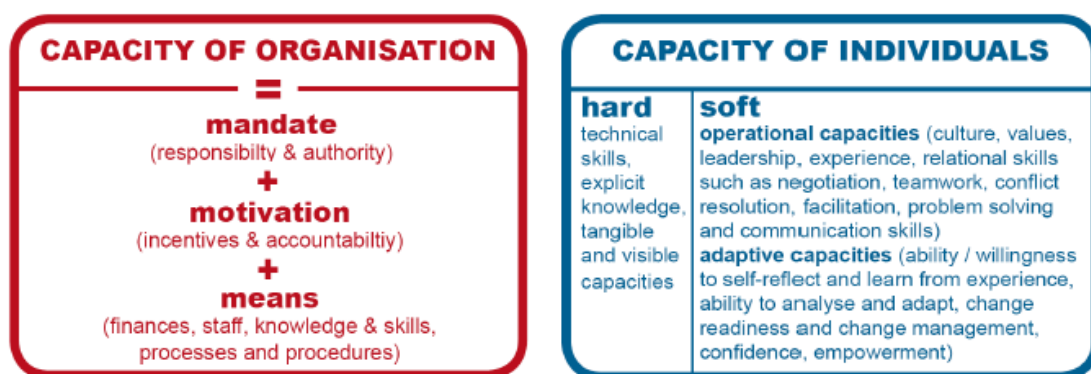
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people and organisations to perform their tasks. Capacity development in society can be addressed at three levels:

- **The societal level:** This is the highest level within which capacity initiatives may be cast and can be seen as the enabling environment level with an emphasis on imparting knowledge of key issues as well as skills for policy formulation and implementation. Capacity development at this level focuses on advocacy, awareness creation, and knowledge sharing and dissemination.
- **The organisational level:** This level includes formal organisations such as government agencies, private sector organisations and NGOs and also informal organisations such as a community based or voluntary organisations. For the public sector, capacity development may include institutional and organisational reforms of mandates, processes and procedures, and awareness in terms of incentives and accountability. Professional bodies may use various means to ensure the awareness and up-to-date skills of their members, e.g. through licensing requirements and means of Continuing Professional Development (CPD). Community based organisations may learn advocacy skills to improve awareness, creation, knowledge sharing and citizen empowerment.
- **The individual level:** This level addresses the need for individuals and groups of people to function efficiently and effectively within the organisation and within the broader system. Such capacity development is about addressing the capacity needs through adequate measures of education and training. This should include technical skills as well as operational and adaptive capacities to perform the relevant tasks. This will mainly take the form of short-duration good practice training, activities of CPD, as well as more formal training leading to academic certificates, diplomas, degrees and postgraduate qualifications, and other skills acquisition and research.

The key components of organisational vs. individual capacities are illustrated in Figure 4.



**Figure 4. Capacity of organisations and individuals (Enemark, et al, 2015)**

Land administration is a cross sectoral and multidisciplinary area that includes technical, legal, managerial, political, economic and institutional dimensions. An adequate response in terms of capacity development measures must reflect this basic characteristic that includes assessment and

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development at all three levels: societal, organisational and individual. Often capacity issues are first addressed at the organisational level. Organisational capacity – such as the capacity of the national land registration and cadastral agency or the cadastral infrastructure and processes – is influenced by not only the internal structures and procedures of the agency, but also by the collective capabilities of the staff on the one hand and a number of external factors on the other.

Such external factors may be political, economic or cultural issues that may constrain or support performance, efficiency, and legitimacy as well as the whole level of awareness of the values of land administration systems. By taking this approach, capacity measures can be addressed in a more comprehensive societal context.

A key feature of the FFP approach is the use of a network of locally trained land officers acting as trusted intermediaries, working with communities to support the identification and adjudication process. This approach builds trust with the communities and allows the process to be highly scalable. The training, support and supervision of these local land officers will require new strong partnerships to be forged with land profession associations, NGOs, CSOs and the private sector. The land administration institution needs to introduce strong supervision of these partners with an associated quality monitoring program. The recruitment process for these local land officers can be very simple: those who apply have to demonstrate that they can understand the aerial images, find their position on an image and have the attention to detail to draw boundaries. This approach was successfully implemented in the land registration project in Rwanda.

Beyond the initial recording of land rights, the FFP approach to land administration needs to leave a sustainable resource behind to provide on-going maintenance of the land information. A good example of this approach is the BRAC's 'Property Rights Initiative' in Bangladesh (BRAC, 2014). A key component of this program was the creation of a new class of government-certified BRAC *amins* or land entrepreneurs. These entrepreneurs were trained by BRAC to measure land and certify property rights, as well as deliver a range of other services and human rights monitoring for their local communities. Land entrepreneurs have the opportunity to earn an income from their survey work while also carrying an obligation to provide free surveys and services to the local poor.

Another good example of a training program to consider the immediate short-term needs for trained land clerks and technicians as well as the longer terms needs for qualified professionals was implemented in Malawi - see case study at the end of this chapter and (Enemark and Ahene, 2002). A special one-year certificate program for land clerks was developed to staff each of the about 250 traditional authorities with one clerk to undertake the everyday land related matters.

### **4.3 Implement Capacity Development Strategy**

There is an increased awareness of the limits of conventional training and that developing capacity in complex systems and organisations requires a long-term strategic approach where shorter initiatives should be seen as stepping stones to achieving longer-term strategic goals. In line with this thinking, and drawing on the UN-HABITAT experience in training and capacity development,

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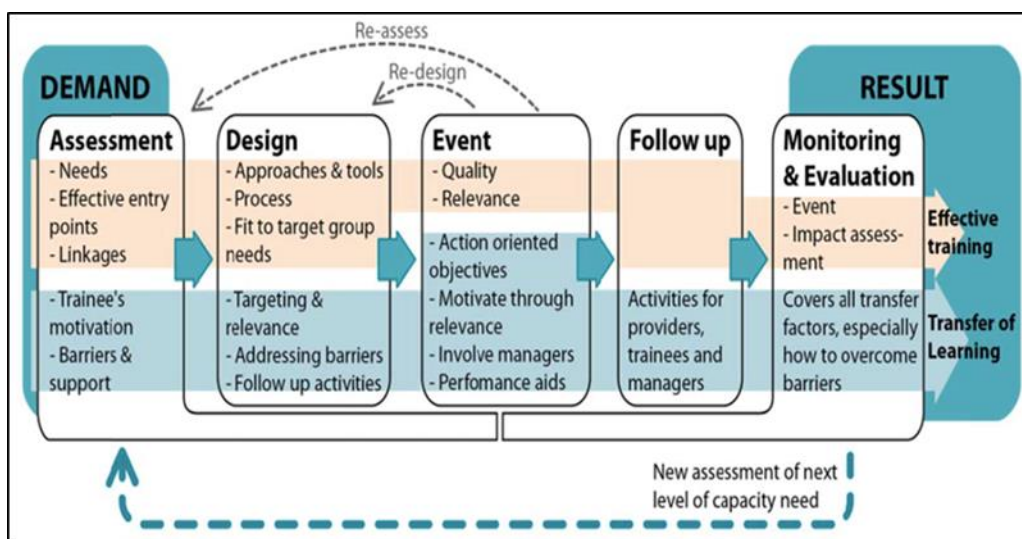
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an improved approach to training and learning has emerged. Figure 5 shows this “best practice learning cycle” where the principles illustrated apply equally well to many other types of capacity development interventions.



**Figure 5. Good practice learning cycle. (UN-HABITAT, GLTN, 2014).**

The capacity development strategy identifies a long-term capacity development goal. However, the implementation of the strategy has to be incremental with intermediate goals and strategic objectives that will contribute to achieving the long-term goal. This is illustrated in Table 1:

Ultimate Goal	Intermediate Goal	Strategic Objectives
Sufficient capacity among all the key actors (including governments, non-state actors, GLTN partners, capacity developers, multi / bilateral agencies) to promote and implement secure land and property rights for women and men, for poverty reduction and economic growth.	Strategic partners have the capacity to develop, promote and implement priority pro-poor, gender-responsive land policies, tools and approaches for specific countries as drivers of national, regional and global change towards secure land rights for all.	<ul style="list-style-type: none"> <li>• Key capacity developers on land (national and international universities, training institutions and others) have moved from conventional technical training curricula to also include pro-poor, gender responsive, multi-disciplinary approaches.</li> <li>• Within each country, the relevant group of partners has the capacity to adapt, pilot, evaluate, use and disseminate each tool</li> </ul>

**Table 1. The GLTN Capacity Development Strategy (UN-HABITAT, GLTN, 2014).**

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## 5 MONITORING & EVALUATION

An assessment framework is used to monitor and evaluate the effectiveness of capacity building activities and change interventions and to provide feedback for improvements. This also relates to instigation of a self-monitoring culture.

The learning points from reviewing and reflecting the change management program should be used to improve approaches for future change. Change agents should be assessed, for example, on their ability to communicate, present, influence, negotiate, reach a wide number of stakeholders, focus on stakeholders with most influence, maintain momentum of change, provide feedback on the wider change program approach and deliver agreed outcomes and benefits.

Once the first major change program has been implemented successfully, future change programs need to build on the knowledge gained from and the relationships and groundwork established in that first one. This should translate into future changes becoming easier and faster. It is necessary to establish and monitor processes to facilitate on-going change and identify new needs and trends (Angehrn and Atherton, 1999).

## 6 PROJECT DELIVERY

Although the approach to implementing FFP land administration will vary across country contexts and be driven by country specific strategies, this section of the paper provides an operational view of implementation. A set of operational guidance is highlighted that has been derived from good practice in FFP land administration projects, in Rwanda and Ethiopia, for example, to help shape the more practical aspects of implementation. The guidance is structured around the implementation lifecycle and highlights approaches and issues to consider when formulating and implementing a country's specific strategy for FFP land administration. Issues covered will include:

- **Identify and take advantage of key drivers for change.**  
The imperative to invest in improved land administration services for all in a country is primarily driven by politics. The drivers for change can include, for example, constitutional change, need for improved access to economic development, improved economic landscape to attract inward investment, reduce poverty or a requirement to reduce land conflicts and improve social stability. The FFP land administration initiative must directly support these political policies and gain political support and associated funding. This political alignment will clearly define the purpose of FFP land administration.
- **Obtain commitment from politicians that the country should adopt the FFP approach.**  
Strong political support is essential for the successful implementation of FFP land administration programs and this should come from the highest level, with sign-off from the Cabinet of the country. The commitment at the very top of government sets the agenda for the rest of the public service and the commitment should filter right down to the local level

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where significant contributions are required for success. This top-level support will also send a clear signal of intent to the potential development partners to trigger invest in the country.

- **Create country specific FFP strategy and roadmap for Land Administration.**  
A fully costed strategy and corresponding implementation roadmap are essential to convince government and development partners to invest. Government targets will primarily shape the program. Therefore, it is important that governments consider and decide upon four key conditions before implementation occurs: scale, accuracy, cost and speed of delivery. The flexible FFP approach allows costs to be significantly reduced (Rwanda was USD 6 per parcel), speed to be increased through simple participatory processes and accuracy set at a level that is appropriate for purpose. These parameters then allow the project to be truly national in scale and deliver land rights for all.
- **Ensure financial sustainability.**  
The land administration institutions need to be financially secure and sustainable. A number of different business models can be adopted to achieve this; ranging from being financed entirely from the public purse through to self-financing with revenue being generated by charging for transactions and data. One of the most popular options is to use service / transaction fees to raise sufficient levels of self-financing to cover the institutions' investment needs and create a stable operating environment. This approach provides quality services and retains a skilled labour force. Therefore, the institutional framework needs to include a business plan and associated marketing plan that are agreed with government. The GLTN's Framework for Costing and Financing Land Administration Services (CoFLAS) tool is an excellent resource for supporting the business planning exercise. Capacity has to be developed in financial management to strengthen the fiduciary aspects of programs.
- **Start building capacity early.**  
Quickly developed, highly participatory land registration programs involve a lot of resources. A strategy for recruiting and training land officers is crucial for success. A wide range of new skills is required, including procurement and contract management, quality assurance, information management, ICT and Human Resource Management, for example. A resource and associated capacity building plan is a key element of this program planning stage.
- **Build scalable ICT solutions that can grow with the program.**  
One of the usual high fixed costs in FFP land administration programs is the cost of software licences and other costs in purchasing commercial packages. This impacts one of the key targets of keeping the FFP approach as cost effective as possible. Several programs have found that adopting a mixture of commercial and Free and Open Source Software (FOSS) solutions can provide cost effective alternatives. Over time, confidence in FOSS solutions can be gained and more commercial solutions replaced by FOSS solutions. However,

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organisations need to ensure that there are good technical / developer skills available to support the FOSS solution.

- **Focus on public consultation and awareness raising.**  
One of the most important elements in implementing a FFP land administration program is to ensure that the public are fully informed of their rights, their obligations under those rights and what the land rights means for them. The program deals with one of the most important assets that people have; land. People will naturally be wary and cautious of any change in regards to their land, especially if they do not fully understand what is happening and why.
- **Set targets, continually monitor progress and improve the program.**  
At the macro level, governments should ensure that the goals for the FFP land administration program are included in various related performance targets for the country as a whole, e.g. economic development and poverty reduction strategy. This will demonstrate the commitment of the government at the national level. Targets should also be agreed at the local level and set in performance contracts, e.g. with local government at the district level of administration. All of these targets set across the entire framework of government demonstrate the overall commitment to the outcome of the FFP land administration program. A regular external review / audit of the monitoring system should be conducted to ensure that the targets are still appropriate, easy to understand and not too complex.
- **Ensure Equality.**  
For these FFP land administration programs to be successful it is vital to ensure there is no discrimination and the processes are systematic; the output is land rights for everyone. Ensure that the actual rights of people are being clarified and the rights are not being given to other people.
- **Learn quickly from mistakes.**  
Although the FFP land administration strategy are normally trialled and tested using pilot projects, it is inevitable when scaled up to a national level that mistakes will be made. This means that trial and error will always be apparent especially in the early stages of a program as a best fit is sought for the country. It is important to understand that errors will be made at the beginning, but if the government resources and support team are open to lessons learned and innovations based upon reliable management information system data and are committed to adapt then the program will evolve into an effective solution.
- **Decentralize and unlock administrative and community resources at the local level.**  
In countries with a very strong local administrative structure the FFP approach can be effectively decentralised to the local level. This creates local administrative commitment where citizens have access to services delivered by members of their community and this builds trust in the process of change. However, in more centralised governments this may

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not be the case, which further demonstrates how FFP land administration needs to adapt to the context in which it is operating.

## **7 ADOPTING THE FFP APPROACH**

The implementation of the FFP approach involves significant change across all stakeholders in the land sector: politicians will have to challenge senior civil servants to adopt radical, new approaches that are politically more attractive and expedient; senior civil servants will have to convince land professionals to change their roles; citizens and communities will have to be activated to accept this highly participatory approach; the legal profession will have to be more flexible in accepting new forms of security of tenure; and all stakeholders will have to accept an initial solution that is not seeking perfection, but can be improved over time.

As with all cultural and behavioural change, it has to be sensitively managed. Otherwise opposition to change will either stop this FFP paradigm shift from happening or completely slow the process down to be rendered it ineffective. There is increasing political pressure for change that can more effectively support the global land agenda and contribute to the global challenges of the 21st century. This urgency must be reflected in the way forward and an agenda to quickly build momentum behind this FFP movement. A key part of this agenda of change is advocacy from the global land institutions. Ensuring advocacy and providing support to change management is a key role for organisations like the World Bank, UN-FAO, UN-HABITAT, UN-GGIM, FIG and other land related professional bodies.

This section of the paper proposes a number advocacy and knowledge sharing activities required around key stakeholders.

### **7.1 Advocacy**

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 organisations 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,

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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.

UN-GGIM is mandated, among other tasks, to “provide a platform for the development of effective strategies on how to build and strengthen national capacity on geospatial information...” UN-GGIM has included land administration activities into their remit of global information management. UN-GGIM is gaining influence in the geospatial domain and is increasing the amount of standards, e.g. geodetic framework, and guidance to the geospatial user community. For example, UN-GGIM has published “A Guide to the Role of Standards in Geospatial Information Management” (UN-GGIM, 2014) that provides good background to the range of standards available and examples of their use. UN-GGIM will have an important role in promoting the FFP approach to land administration.

## **7.2 Support of Professions**

The hearts and minds of land professionals need to be turned to fully understand and embrace the FFP approach. This will require the benefits of such a move to be clearly articulated so that any perceived threats are dissipated. The lawyers have a major role in land administration; setting the legal and regulatory frameworks and delivering land administration services in countries where the judicial system supports land registration. Land surveyors normally enjoy a monopoly on boundary determination within their countries, but in the majority of developing countries there are simply not sufficient surveyors to meet demand. For example, Uganda only had 38 licensed surveyors in 2012.

However, the FFP approach will create even greater demand for land professionals as security of tenure is provided for all and the need for services will increase significantly. For example, new services will be required to upgrade the evidence of land rights along the continuum of rights, to provide training and supervision of local land officers and to effectively manage and quality assure land information. This is a great opportunity for land professionals. Organisations such as FIG and their member associations need to actively promote the adoption of the FFP approach to land administration across their membership and enable experience and best practice to be shared across the land professionals.

Furthermore, valuers provide information and services to support property-based tax and also support the land market. The financial services sector provides mortgages and provides opportunities for investment opportunities in property. Planners are an integral part of land use and land development lifecycles. Outreach to these associated professional bodies is essential to obtain and build their support for change.

## **7.3 Capacity Development**

Effective capacity development 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 organisations such as government agencies, private sector

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organisations and informal organisations, such as community based or voluntary organisations, need to ensure the awareness and up-to-date skills of their members and staff.

The largest change will be focused on the public sector where this may involve institutional and organisational reforms. This will include modifications to the legal framework, processes and procedures, and raised awareness in terms of incentives and accountability. Governments need to implement significant capacity building programs across their land institutions.

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. Academic institutions worldwide will have to embrace FFP land administration and create a new generation of land professionals.

#### **7.4 Early Adopter Implementation**

The implementation of FFP land administration will require a series of steps, including:

- Obtain a commitment from politicians that the country should adopt the FFP approach, develop a country specific FFP strategy for land administration and an engagement / communication strategy;
- Capacity building across public sector, private sector, NGOs, CSOs and civil society, and design and implement an ICT solution for FFP land administration;
- Introduce reforms to the legal and regulatory framework to ensure legal support of the FFP approach, as well as institutional reforms to improve coordination and to build the appropriate FFP institutional framework;
- Design a data acquisition program to continuously deliver and update imagery to support the FFP spatial framework, based on country specific instruction manuals;
- Test through pilot projects across a range of regions within the country with varying tenure types, land use, topography and density of buildings / parcels. This will include the first recordation as well as the maintenance of the land records;
- Train local land officers for acting as trusted intermediaries;
- Rollout the minimum viable product implementation of national FFP land administration program across the country that is scalable. This will be campaign driven and will leave a sustainable land administration solution that provides effective maintenance of records; and
- Evaluate, monitor and incrementally improve the national FFP land administration program.

Support needs to be provided to early adopters of the FFP approach. Initially this will be help in the formulation of country specific FFP strategies for land administration. The country specific FFP strategy with associated implementation costs and timeframes can then be compared with their current land administration strategy to highlight the benefits of adopting the FFP approach.

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Support should also be provided to early adopter countries implementing FFP pilot projects. This will be similar to the USAID Mobile Application to Secure Tenure (MAST) project in Tanzania (USAID, 2015). Support should include:

- Design of pilot project;
- Advise on technology and infrastructure;
- Support in selecting local partners;
- Training program;
- Design of engagement / communication strategy;
- Independent monitoring and evaluation framework.

## 7.5 Knowledge Sharing across a FFP Ecosystem

Sharing of knowledge, experiences, good practice and open source tools will be encouraged and enabled across the FFP ecosystem. The ultimate success of FFP will depend on engaging and evolving a series of motivated communities to share knowledge, experiences, good practice and open source tools. The range of communities will include: citizens, NGOs / CSOs, academia, open source software developers, professional bodies, locally trained land officers and donors. Each of these communities will require different forms of engagement under an overall FFP Community Engagement Strategy.

## 8 CONCLUSIONS

It is hoped that Guiding Principles for FFP Land Administration 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**

Robin McLaren is director of Know Edge Ltd a UK based, independent management consulting company formed in 1986. The company supports organizations to innovate and generate business benefits from their geospatial information. Robin has supported national governments in formulating National Spatial Data Infrastructure (NSDI) strategies. He led the formulation of the UK Location Strategy and has supported similar initiatives in Kenya, Hungary, Iraq, Western Australia, Kuwait and Canada. He has also supported the implementation of the EU INSPIRE Directive in the UK and was a founding member of the UK Location Council. Robin is also recognized as an expert in Land Information Management and has worked extensively with the United Nations, World Bank and EU on land policy / land reform programs to strengthen security of tenure and support economic reforms in Eastern and Central Europe, Africa, Middle-East and the

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Far-East. He has co-authored the FIG / World Bank publication on 'Fit-For-Purpose Land Administration' and a more detailed 'Fit-For-Purpose Land Administration Guiding Principles' for GLTN providing legal, spatial and institutional guidance aimed at less developed countries. His recent research focuses on the innovative use of crowdsourcing to support citizens in directly capturing their land rights.

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