

# Engaging the Gatekeepers in Crowdsourced Land Administration

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## Reactions to Crowdsourcing Proposal

“Violence would probably ensue and the intervention of riot police to sort out hostilities could be expected – crowdsourcing thus becomes crowd crunching and probably a lot of people get hurt.”

Michael Ulrich Jnr., American Surveyor

## The 21<sup>st</sup> Century Challenge for Land Professionals

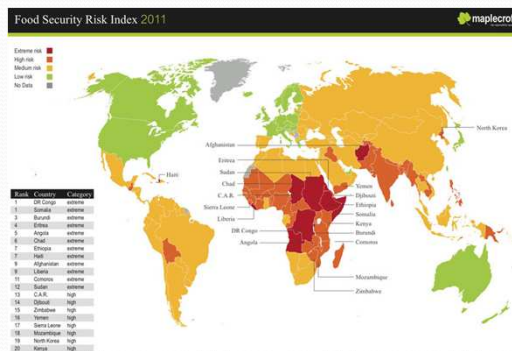
If Land Professionals are going to seriously contribute towards solutions to the 21<sup>st</sup> century's global problems then we will have to change our relationship with citizens and adopt a new paradigm.



Source: www.whataretheywaitingfor.com

## Challenge to Land Administrators

Only 25% of the 6 billion land parcels worldwide are formally registered and have robust security of tenure.



Land Information Management Systems & security of tenure at scale in critical path of sustainable cities, climate change management, food security, poverty alleviation etc.

## Radical and Scalable Solutions Needed

We need radical and innovative new solutions.

**Our Current Solutions are not Scalable or Sustainable.**



Source: [www.mol.gov.vu/lands-lr.php](http://www.mol.gov.vu/lands-lr.php) ©Know Edge Ltd / RICS 5

## Continuum of Land Rights

Continuum rhymes with choice, transition and integration

**Land Rights:**

Legitimate ↔ Legal

Non-Documented ↔ Documented

**Recording Rights:**

Paper ↔ Sophisticated ICT

**Securing Land Rights:**

Bare-foot Practitioners ↔ Qualified Experts

**Data Accuracy:**

Kilometres ↔ Sub-centimetre

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## Continuum of Land Rights – Fit for Purposes

**Adoption and implementation is a major change management programme across the Land Sector:**

- Land approaches and methods.
- Land markets.
- Legal frameworks.
- Land technology.
- Land measurements.
- Citizen awareness.
- Education and capacity building.



Many interventions are required...

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## The Perfect Storm of Change

Urbanisation      Security of Tenure Chasm      Too Few Land Professionals

Global Navigation Satellite Systems      Image Based Mapping      Mobile Phones

Web 2.0 Social Networking      Crowdsourcing      Spatially Enabled Society

**Crowdsourcing supporting a partnership between Land Professionals and Citizens**

Source: <http://pixdaus.com>

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## Mobile Phone 'Cyborg' Functionality

By 2015 the majority of Mobile Phones will be Smart Phones



## Empowering Citizens to Engage with Land Administration

### Potential Mobile Land Administration Services

- Accessing Customer Information Services
- Recording Land Rights
- Obtaining Title
- Accessing Land Information
- Paying Fees and Mortgage Instalments
- Marketing Real Estate
- Participating in Development Control / Planning



The image shows the cover of a RICS Research report. At the top, it says 'Report November 2011'. Below that, the title 'RICS RESEARCH' is in a purple box. The main title is 'Crowdsourcing Support of Land Administration' with a subtitle 'A new, collaborative partnership between citizens and land professionals'. The central image depicts several green human figures standing on a grid of orange mobile phones, with a compass rose in the background. At the bottom left is the RICS logo and 'The mark of excellence in land and construction', and at the bottom right is the URL 'rics.org/research'.

Report November 2011

**RICS RESEARCH**

Crowdsourcing Support of Land Administration  
A new, collaborative partnership between citizens and land professionals

pdf download available on RICS website:  
[http://www.rics.org/site/scripts/download\\_info.aspx?fileID=10840&categoryID=325](http://www.rics.org/site/scripts/download_info.aspx?fileID=10840&categoryID=325)

**RICS** The mark of excellence in land and construction

rics.org/research

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## Proposed Land Administration Crowdsourced Pilot

### Objectives:

- to test the concept of participatory or crowdsourced approach to capturing land rights information to support land administration and to understand citizens' and communities' reaction;
- to understand what land rights information needs to be captured along the continuum of rights;
- to identify a range of technology tools available, affordable and appropriate to support the approach; and
- to judge how best to engage with Land Administration authorities and other key stakeholders in adopting radical change.

## Land Sector Gate Keepers

**Resistance to changing the status quo – vested interests:**

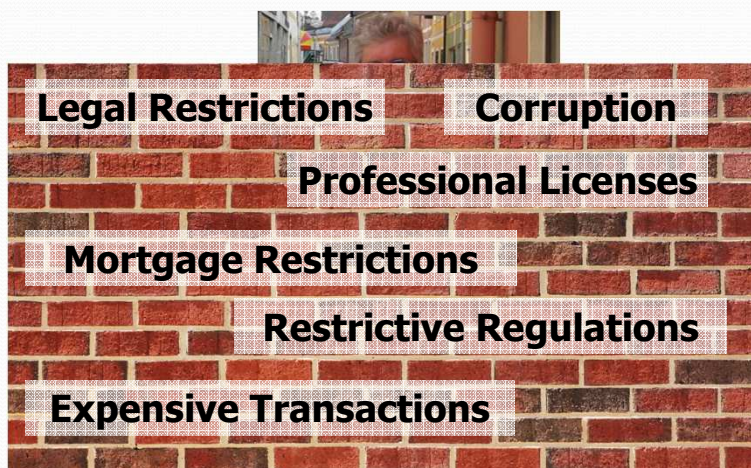
- Land Administration Agencies.
- National Mapping Agencies.
- 'conservative' Governments.
- Surveying Profession.
- Legal Profession.
- Financial Services.
- Land and property investors taking advantage of the current chaos.



Source: <http://www.jumpstartgrowth.com>

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## Land Sector Gate Keepers



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## Land Sector Gate Keepers

**Do we need to work with and convince the gate keepers to change?**

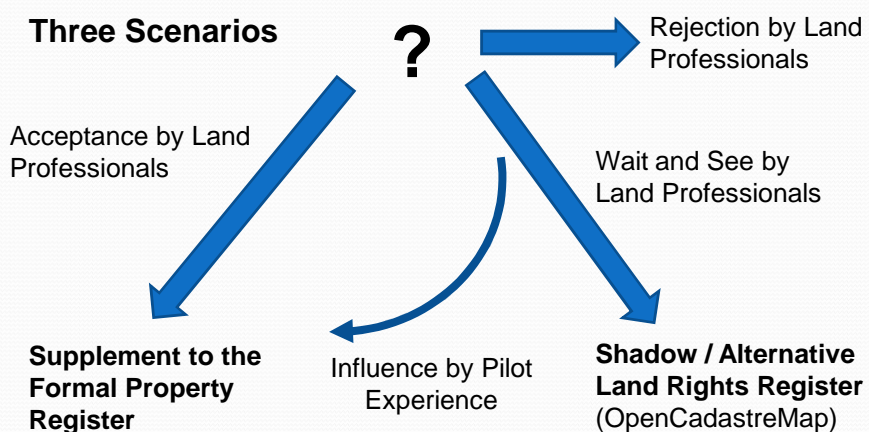


Source: <http://www.free-desktop-backgrounds.net>

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## The Impact of New Citizen Collaboration Model on the existing Land Administration Sector

### Three Scenarios



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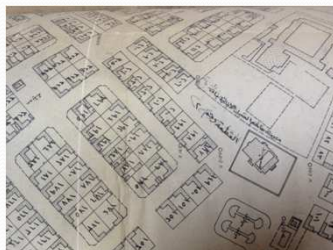


## Land Sector Gate Keepers

**Need to engage with these stakeholders to bridge crowdsourced land rights with formalised land rights.**



Source: <http://fenixintl.com>



**But How?**

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## Engagement Strategy

### **Involve in Hybrid Project Governance Arrangements**

- Crowdsourcing based initiatives, by definition, are grass roots based and are normally created to challenge formal systems or to offset constraints and inadequacies.
- A bottom-up crowdsourcing initiative for land administration would seem more appropriate where strong partnerships are formed amongst local stakeholders, including local communities, local government, NGOs and CSOs.

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## Engagement Strategy

### Involve in Hybrid Project Governance Arrangements

- Directly involve senior representatives from Land Administration Agencies and National Mapping Agencies in the Project Board with oversight responsibilities.
- Provide guidance on how land rights captured can be formalised wherever possible.



Source: <http://www.upsilon-xi.net>

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## Engagement Strategy

### Involve Land Professionals in Training Programmes

- The new role of land surveyors will be for capacity building, enabling technology and data flow and quality control, but not for field work.
- Land professionals train trusted intermediaries in communities.
- Intermediaries could be shared with other information services, e.g. health and agriculture.



Source: <http://landsurveyorsunited.com>

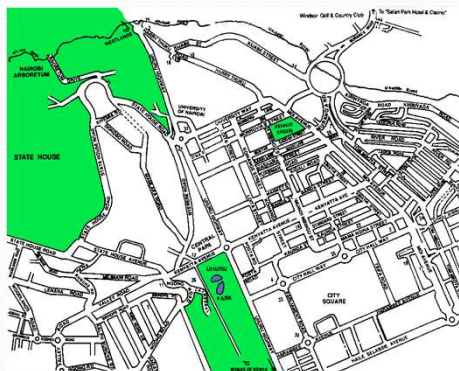
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## Engagement Strategy

### Include wider data capture to secure interest

- Use crowdsourced data to also update old base maps which is a responsibility of national mapping agencies.



Source: <http://kijabe.org/nairobi/nbimap.gif>

## Engagement Strategy

### Include wider data capture to secure interest

- Target crowdsourcing exercise in countries that have done national or regional systematic registration of land rights, e.g. Rwanda or Ethiopia, and use the data to fill in the spatial data framework gaps.



Source: [http://www.zgquesthouse.com/location/ZGH\\_Map.jpg](http://www.zgquesthouse.com/location/ZGH_Map.jpg)

## Engagement Strategy

### Include wider data capture to secure interest

- Undertake crowdsourcing in countries that have completed large areas of systematic demarcation of land parcels (especially producing Survey Plans or General Plans) some time ago that have been overtaken by sub-divisions.
- Crowdsourcing could be used to collect spatial data for sub-divisions.



Source: <http://www.robinsonspilcondos.com>

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## Engagement Strategy

### Include wider data capture to secure interest

- Crowdsourcing in very dense urban slums with very tiny land parcels to generate land rights data and socio-economic data required for planning the updating of infrastructure and social services.



Source: <http://www.robinsonspilcondos.com>

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## Engagement Strategy

### Include wider data capture to secure interest

- Use crowdsourcing projects to create employment for para-professionals (para-surveyors and semi-skilled GIS/IT experts) such as those in Rwanda since its national program is now virtually complete.



Source: <http://www.geometh-data.ethz.ch>

## Engagement Strategy

### Include wider data capture to secure interest

- Capture other socio economic information decided by Civil Society Organisations, e.g. garbage, water, health and other socio-economic information.
- The scope will be driven by user demand.



Source: <http://cleanwaterforall.files.wordpress.com>

## Engagement Strategy

### Review and adapt the legal framework

- Review and adapt the legal framework and associated regulations to ensure flexibility to accommodate land right definitions along the continuum of rights and has the capability to lead to formal rights.
- Provide toolkits?



Source: <http://www.teddyoung.org>

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## Engagement Strategy

### Adopt Open Standards

- Open standards should be used wherever possible, e.g. LADM/STDM model and Free and Open Source Software (FOSS).
- Neutral development environment.
- Provides the opportunity to build open source communities in this application area.
- This will help to build capacity locally and provide revenue generating opportunities.



Source: <http://www.tp.net/images>

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**Let's try it and pilot it and make land administration by the people for the people a distinctly 21<sup>st</sup> Century phenomenon.**



### Land Sector Gate Keepers



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