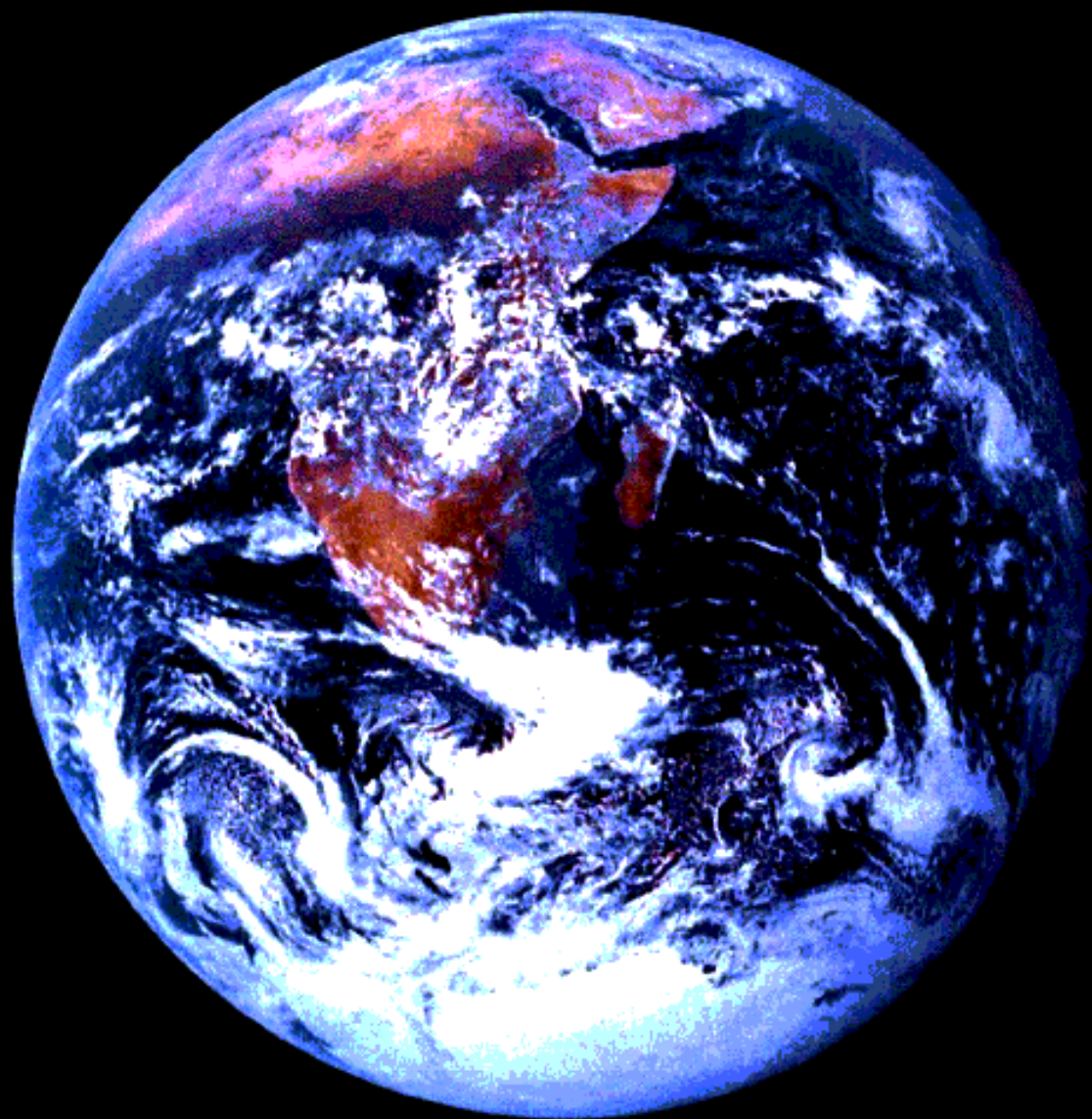


# **A Variety of Continuums for Citizen Centric Land Administration**

Mathilde Molendijk, Christiaan Lemmen,  
Rohan Bennett and Kees de Zeeuw  
(The Netherlands)

TS06A – The Continuum of Land Rights  
Commission 7  
Christchurch, New Zealand, May, 5th, 2016







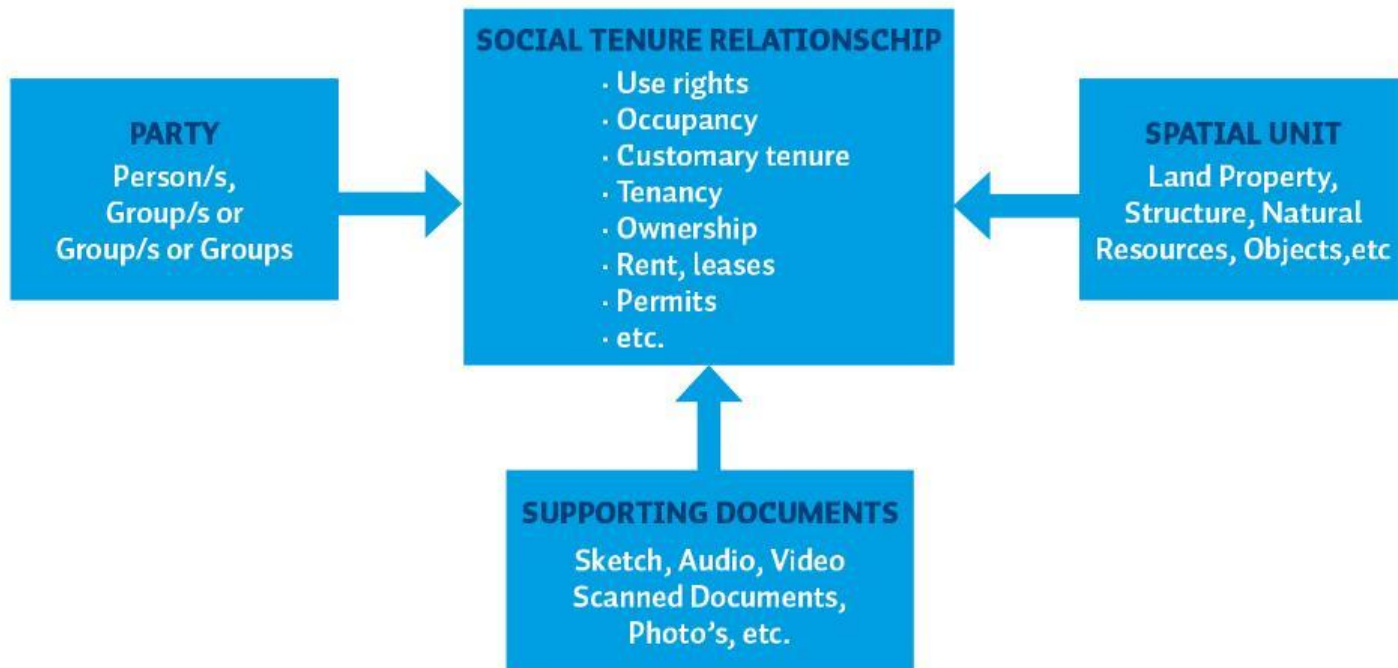


**Inclusiveness**

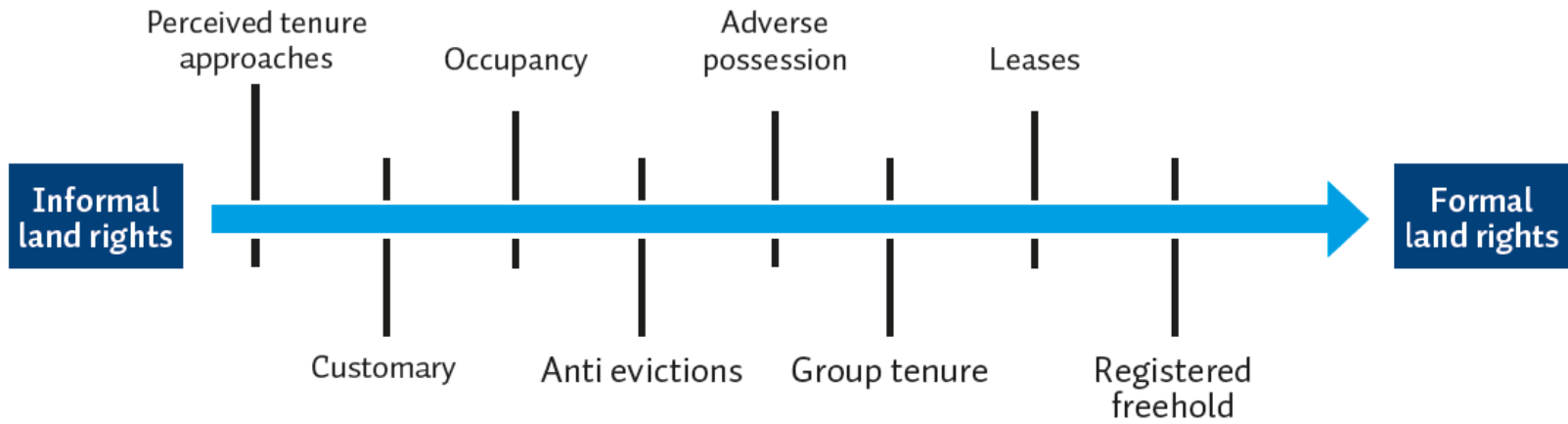
# Challenges in Land Administration

- 70% to be done
- Complex institutional setting
- Corruption / Transparency
- Automation
- Trustworthy Parties
- Trend: decentralisation

# STDM Conceptual Model

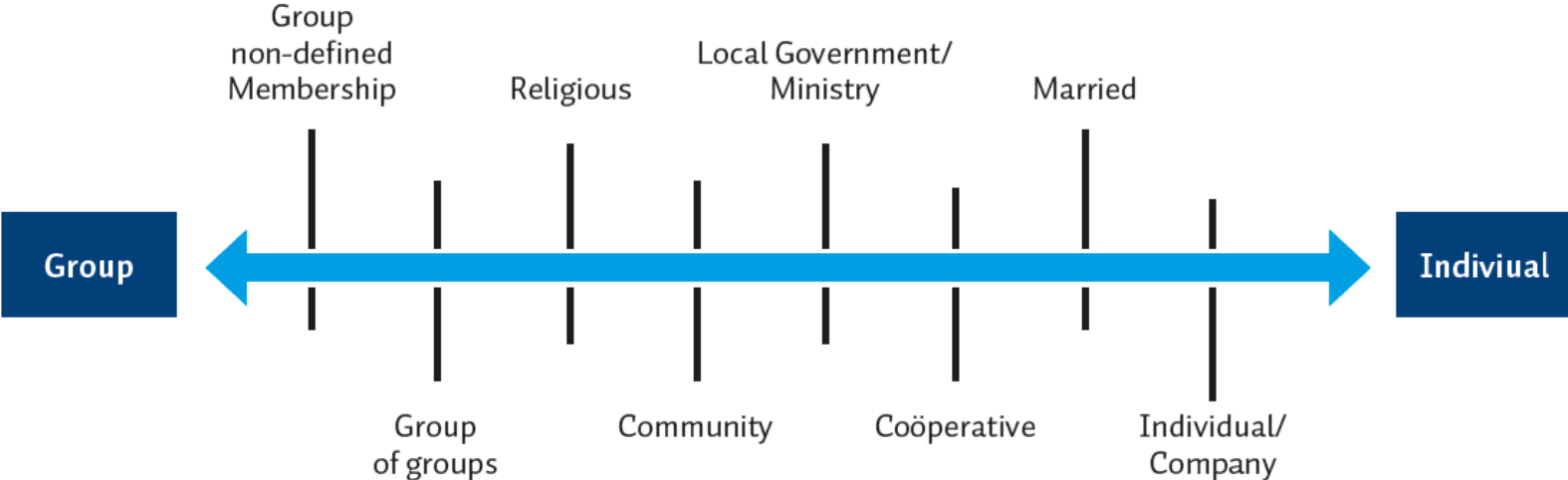


## Continuum of land rights

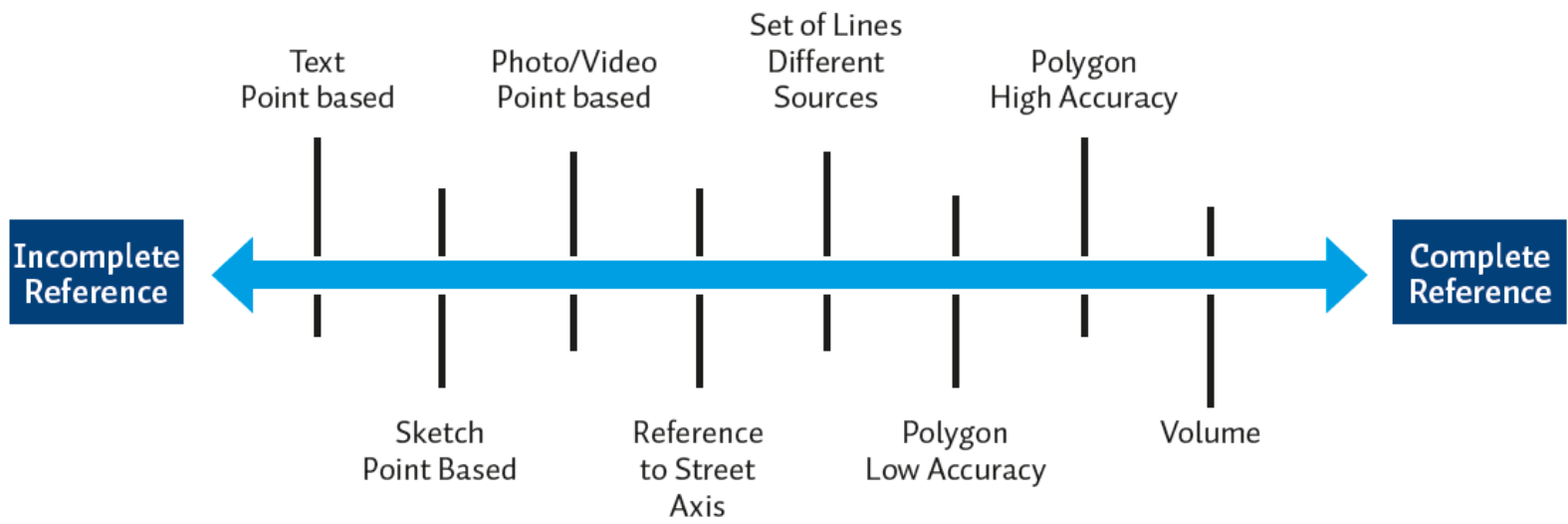




# Continuum of rightholders



## Representations of spatial units

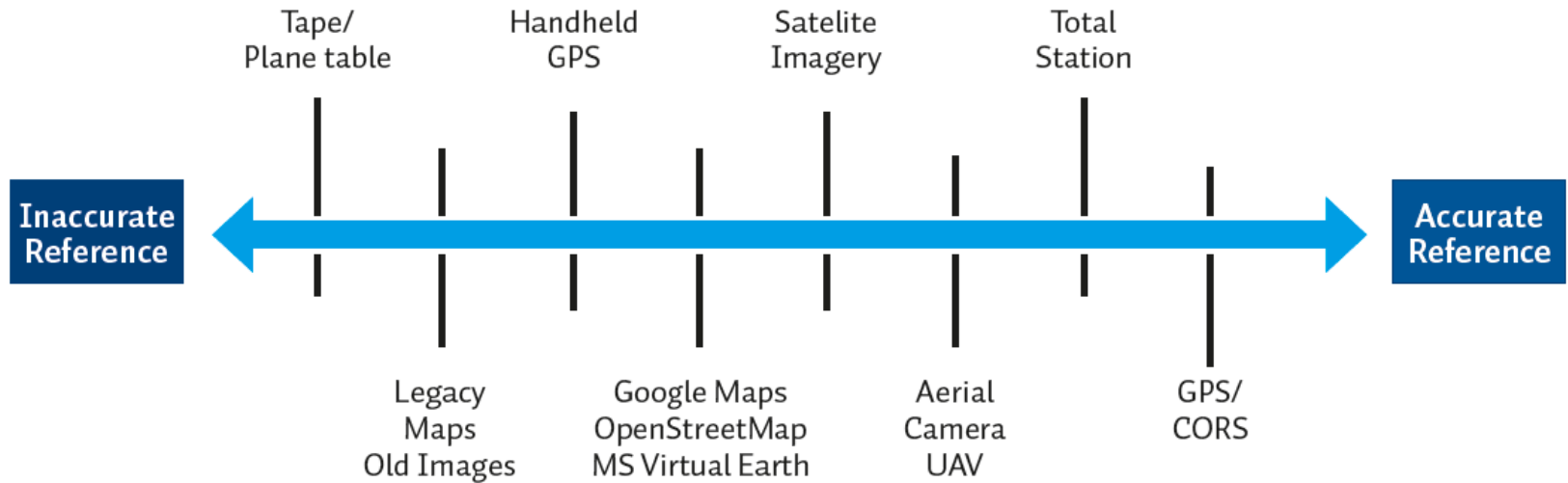


Incomplete Reference

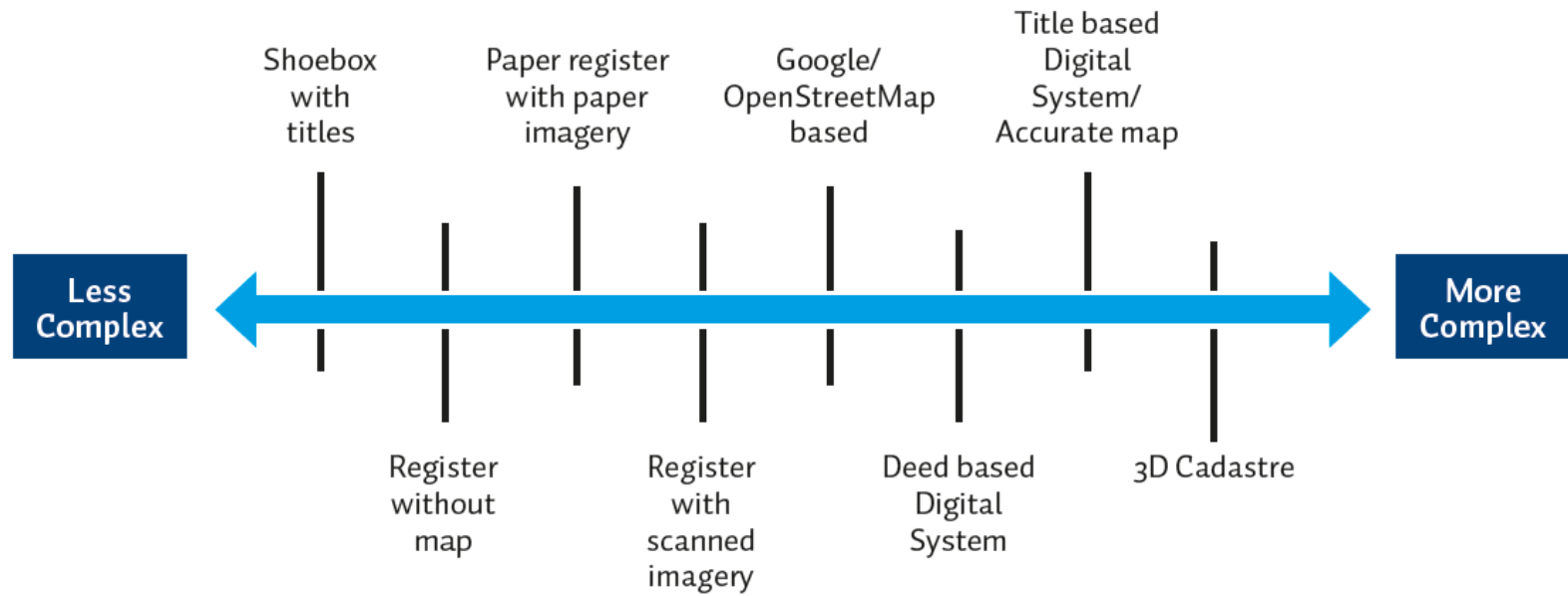
Complete Reference



## Acquisition methods



## Land recordation

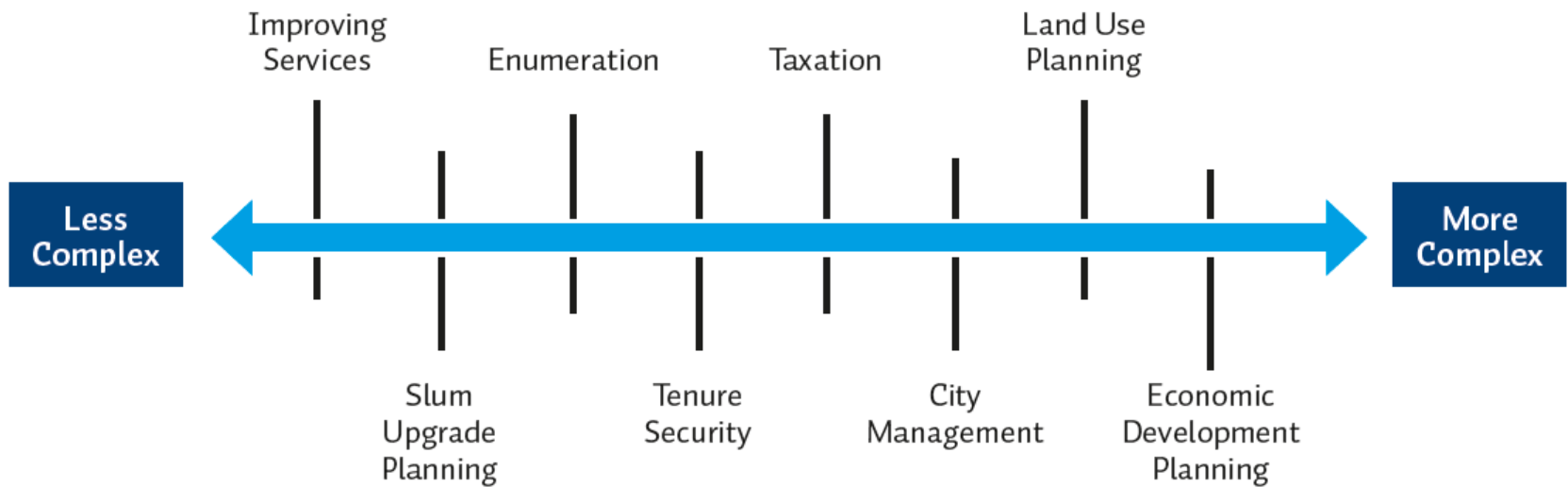


Less Complex

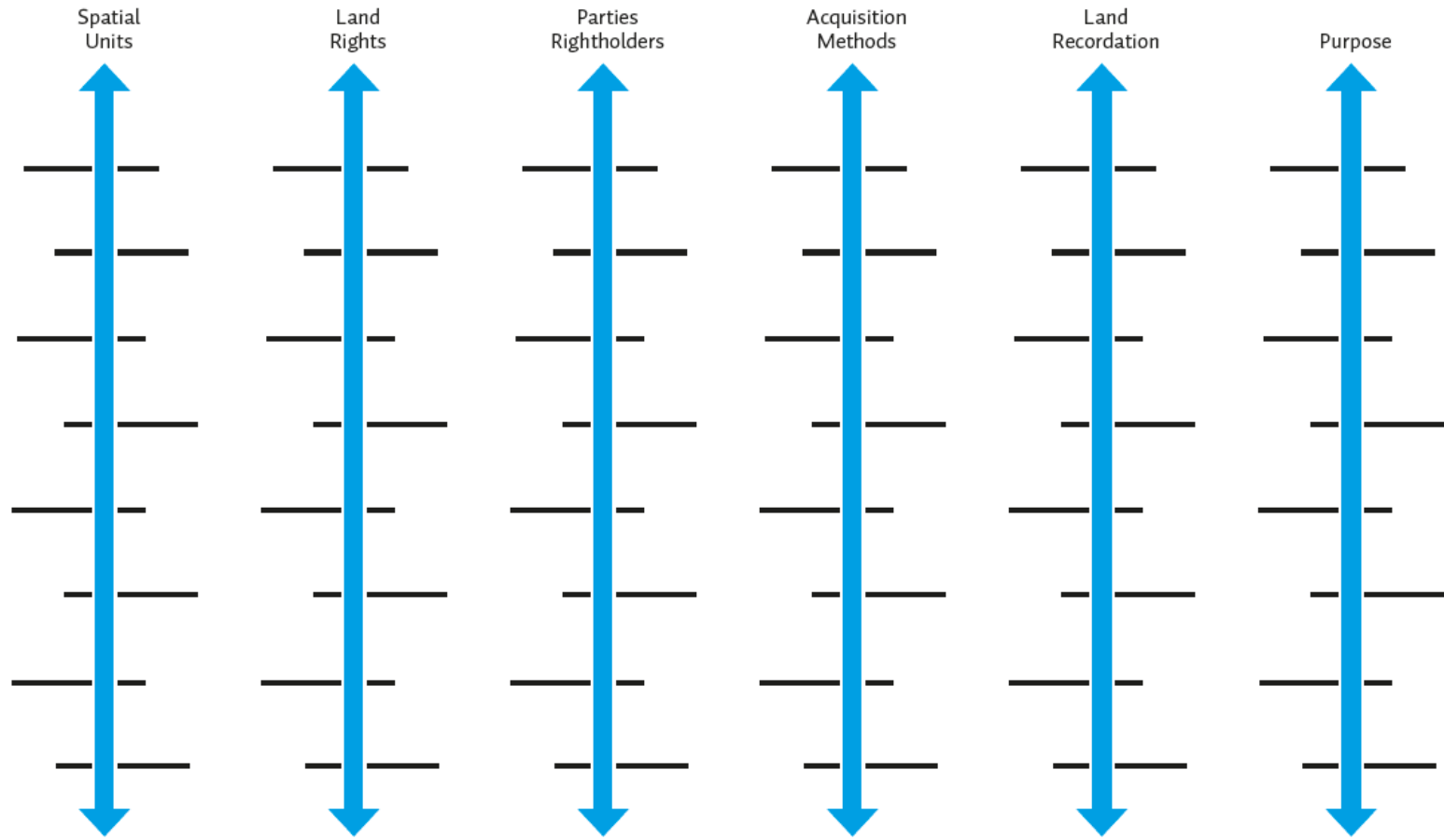
More Complex



## Functionalities and purpose



# Equalizer







Pasar

Gembala Almas

Elsa

Gembala

Gembala

Embaya

Fresah

Almas

Gembala





Courtesy:  
Dr Zerfu Hailu



Courtesy:  
Dr Zerfu Hailu









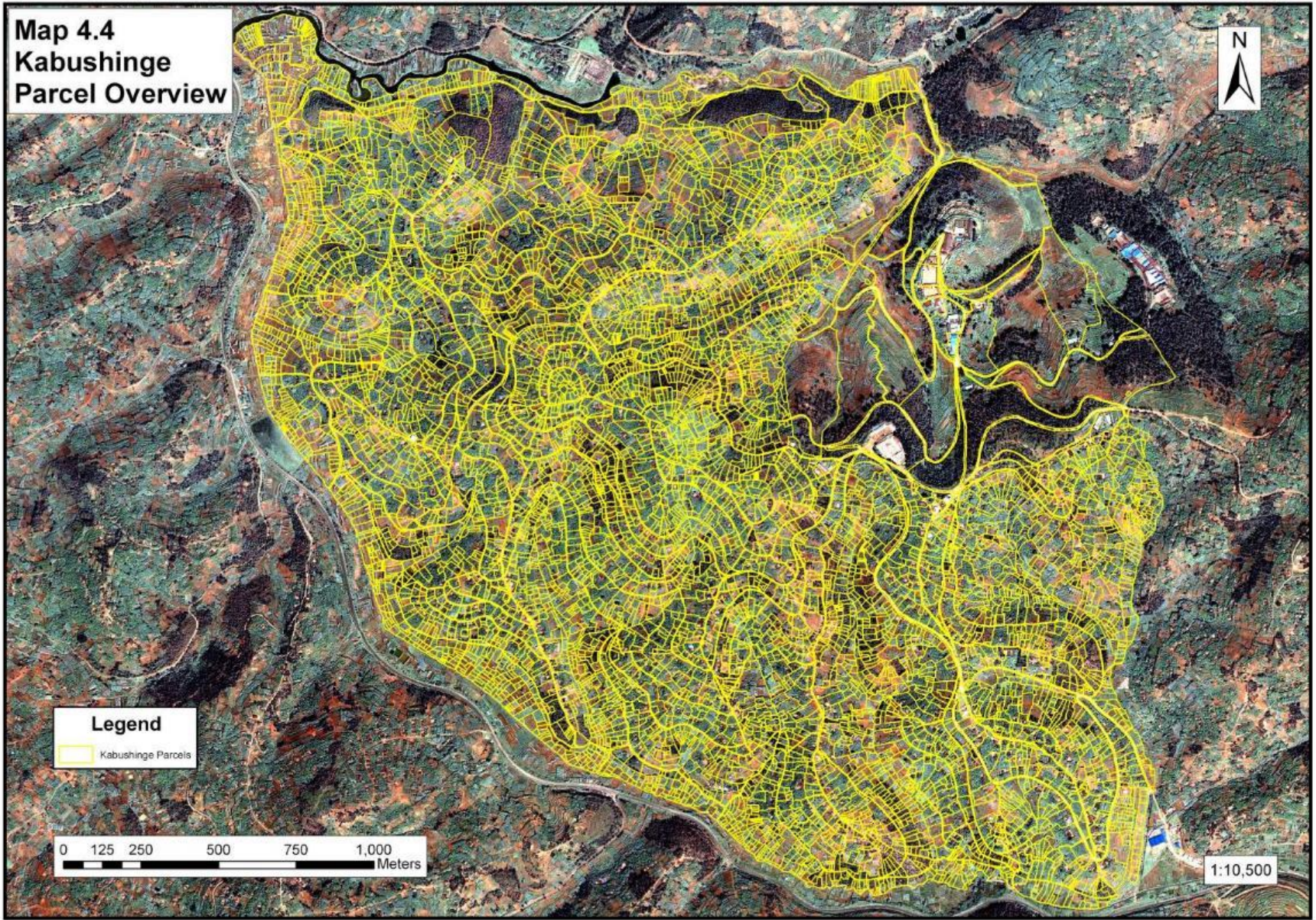






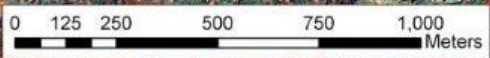


**Map 4.4**  
**Kabushinge**  
**Parcel Overview**



**Legend**

 Kabushinge Parcels



1:10,500









LEONARDO MARTINEZ MARTIN

LEONARDO MARTINEZ MARTIN

0285000

CASTILLO RIVERA

CAMAYO IDROBO LEONIGILDO

02







0:320

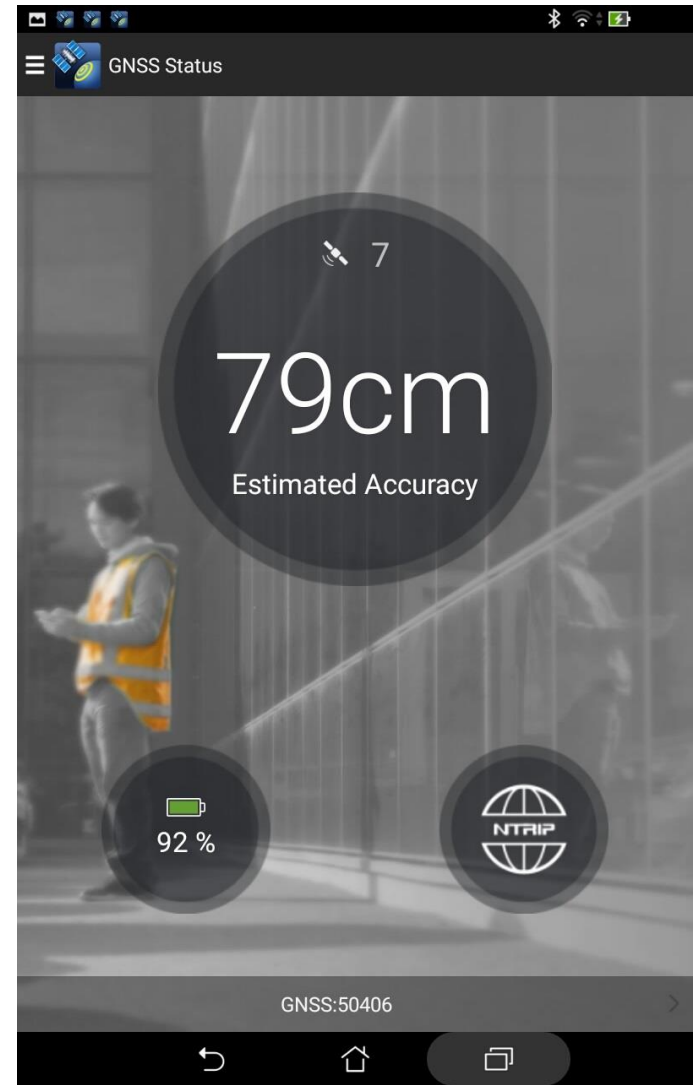
5055  
5056  
5057  
5058  
5059  
5060  
5061  
5062  
5063  
5064  
5065  
5066  
5067  
5068  
5069  
5070  
5071  
5072  
5073  
5074  
5075  
5076  
5077  
5078  
5079  
5080  
5081  
5082  
5083  
5084  
5085  
5086  
5087  
5088  
5089  
5090  
5091  
5092  
5093  
5094  
5095  
5096  
5097  
5098  
5099  
5100

LEDEZMA ASTAIZA MARTHA-EUCIA









04:45

DONE Details

 **Spatial unit: Matricula: 484716 - (Lote 3)**  
 Area: 0.10 sq km  
 Edited by j.moral\_EsriLandInternal 16 hours ago

LABEL

**Matricula: 484716 - (Lote 3)**

CREATED\_USER

CREATED\_DATE

LAST\_EDITED\_USER

LAST\_EDITED\_DATE

ADDRESS

 **View**

 **New**

RIGHT

 **View**

 **New**

SPATIAL SOURCE

 **View**

 **New**


ATTACHMENTS

 <b>JPG</b>	 <b>JPG</b>
Spatial unit_13_0_ArcGISApp 100 KB	Spatial unit_13_0_ArcGISApp 100 KB

04:45

04:45

Details

 **Right: Ownership**  
 Edited by j.moral\_EsriLandInternal seconds ago

TYPE

**Ownership**

DESCRIPTION

**cc: 39809917**

CREATED\_USER

CREATED\_DATE

**May 29, 2015**

LAST\_EDITED\_USER

LAST\_EDITED\_DATE

SHARE

**100.00**

APPLY SHARE


**Yes/True**


SHARE START DATE

**December 20, 2000**

SHARE END DATE

PARTY

 **View**

 **New**

ATTACHMENTS

No attachments found

04:45





**Party: Jaime Rodrigo Gutierrez Correa**

*Edited by j.moral\_EsriLandInternal an hour ago*

NAME

**Jaime Rodrigo Gutierrez Correa**

TYPE

**Natural person**

CREATED\_USER

CREATED\_DATE

**May 29, 2015**

LAST\_EDITED\_USER

LAST\_EDITED\_DATE

**June 01, 2015**

PARTY ROLE

View

New



**Party: Gilma Velez de Gutierrez**

*Edited by j.moral\_EsriLandInternal 13 minutes ago*

NAME

**Gilma Velez de Gutierrez**

TYPE

**Natural person**

CREATED\_USER

CREATED\_DATE

**May 29, 2015**

LAST\_EDITED\_USER

LAST\_EDITED\_DATE

PARTY ROLE

View

New



Details
Add ▾
Edit
Basemap
Save ▾
Share
Print
Directions
Measure
Bookmarks

About
Content
Legend

Legend

Spatial unit



Spatial source



**Spatial unit: Matricula: 484716 - (Lote 4)**

Label            Matricula: 484716 - (Lote 4)  
 created\_user  
 created\_date  
 last\_edited\_user  
 last\_edited\_date

**Attachments:**  
 Spatial  
 unit\_17\_0\_ArcGISApp\_1432839210096.

Edited by j.moral\_EsriLandInternal 23 hours ago

[Zoom to](#)
[Get Directions](#)
[Edit](#)

[Show Related Records](#)

- Address
- Right
- Spatial source

**Right (2 features)** Table Options ▾

Type	Description	created_user	created_date	last_edited_user	last_edited_date	Share	Apily share	Share start date	Share end date
Ownership	cc: 2929545		May 29, 2015			50.00	Yes/True	December 20, 2000	
Ownership	cc: 24287907		May 29, 2015			50.00	Yes/True	November 20, 2000	







# A community driven land Information System in Mashimoni

The screenshot displays the 'Persons Records Manager' software interface. The main window is titled 'Persons Records Manager - 1360 rows'. It features a data table with the following columns: Family Name, Other Names, Address, Identification, Contact Telephone, Age, Gender, and Spatial Unit Id. Below the table is a search bar labeled 'Look For' with a dropdown menu set to 'Family Name' and a 'Close' button. At the bottom of the window are buttons for 'Calculate', 'Export', 'Clear', and 'Help'. The background shows a map with red lines representing land parcels, each labeled with a unique identifier such as MMN10/B/068B, MMN10/B/068C, MMN10/D/034B, MMN10/D/03..., MMN10/E/054B, MMN10/B/085A, MMN10/F/040A, MMN10/D/006A, MMN10/A/065B, MMN10/B/069F, MMN10/C/06..., MMN10/B/014A, MMN10/D/050B, MMN10/B/051D, MMN10/A/054B, MMN10/B/052D, MMN10/A/052A, MMN10/B/045C, and MMN10/A/045B.

Family Name	Other Names	Address	Identification	Contact Telephone	Age	Gender	Spatial Unit Id
Abednego	Atonya						MMN10/D/034B
Abega Abega	Eliud						MMN10/D/03...
Aboko	Benson						MMN10/E/054B
Aboso Peter	Jane						MMN10/B/085A
Acharia Kamau	Tony						MMN10/F/040A
Achayo	Emily						MMN10/D/006A
Achieng	Gladys						MMN10/A/065B
Achieng Odhiambo	Evelyne						MMN10/B/069F
Achieng Okoth	Judith						MMN10/C/06...
Achieng Omondi	Leah						MMN10/B/014A
Achieng Ouma	Esther						MMN10/D/050B
Achieng Ouma	Esther						MMN10/B/051D

Handwritten numbers 1, 2, 3, 4 in blue paint on a corrugated metal surface.



QGIS 2.2.0-Valmiera - Mashimoni

Project Layer Settings Processing STDM Help

Party Records Manager - 3966 rows

Family Name	Other Names	Address	Identification	Contact Telephone	Age	Gender	Spatial Unit Id
DOMINIC	ASODO						MMN10/B/084D
DONALD	NZUKI						MMN10/A/102F
DONARD	MUSILWA						MMN10/D/055C
DORCAS	OSOGO						MMN10/F/033B
DORCAS	MOLYLE						MMN10/D/068A
DORCAS	MWELU						MMN10/B/076C
DORCAS	WAYUA						MMN10/B/056C
DORCUS	NDINDA						MMN10/E/071G
DORINE	ONYANGO						MMN10/C/042B
DORIS	MALEWA						MMN10/F/039B
DORIS	KARUTHA						MMN10/A/064A
DORON	ADAMAMBO						MMN10/E/039C

Look For:  In Column: Family Name

Processing Toolbox

- Recently used algorithms
- Warp (reproject)
- Union
- Join attributes table
- GDAL/OGR [32 georalgorithms]
- GRASS commands [157 georalgorithms]
- GeoServer/PostGIS tools [8 georalgorithms]
- Models [4 georalgorithms]
- Orfeo Toolbox (Image analysis) [76 ge...
- QGIS georalgorithms [67 georalgorithms]
- SAGA [243 georalgorithms]
- Scripts [10 georalgorithms]

Coordinate: 262016, 2,9860313.7 Scale: 1:908 EPSG:32737

ENG 09:44  
US 19/03/2015

# Achievements

- Communities embraced STDM and appreciated to have a digital data base
- STDM able to capture social tenure relationships in slum settlements
- Has facilitated securing of women/widows rights to land
- Helped in resettling community members in cases of fire outbreaks
- Community able to update and manage their data in the STDM framework and to train members from other communities
- Communities used the information in the data base for land tenure negotiation
- Village leaders use the generated STDM report for their work
- Community members got to know each other better
- Many land sector stakeholders acknowledged STDMs capacity of capturing tenure situations in informal settlements
- Mombasa County Government carried out resettlement exercise in STDM framework
- NLC planning for STDM workshop



# Benefits to citizens

- Tenure security
- Reduces or eliminates risk of eviction
- Enhances the incentive to invest in land
- Access to credit
- Easier land dealings
- Less litigation