



THE ROLE OF CADASTRAL INFORMATION IN PERI-URBAN SETTLEMENT PLANNING IN KIGALI CITY

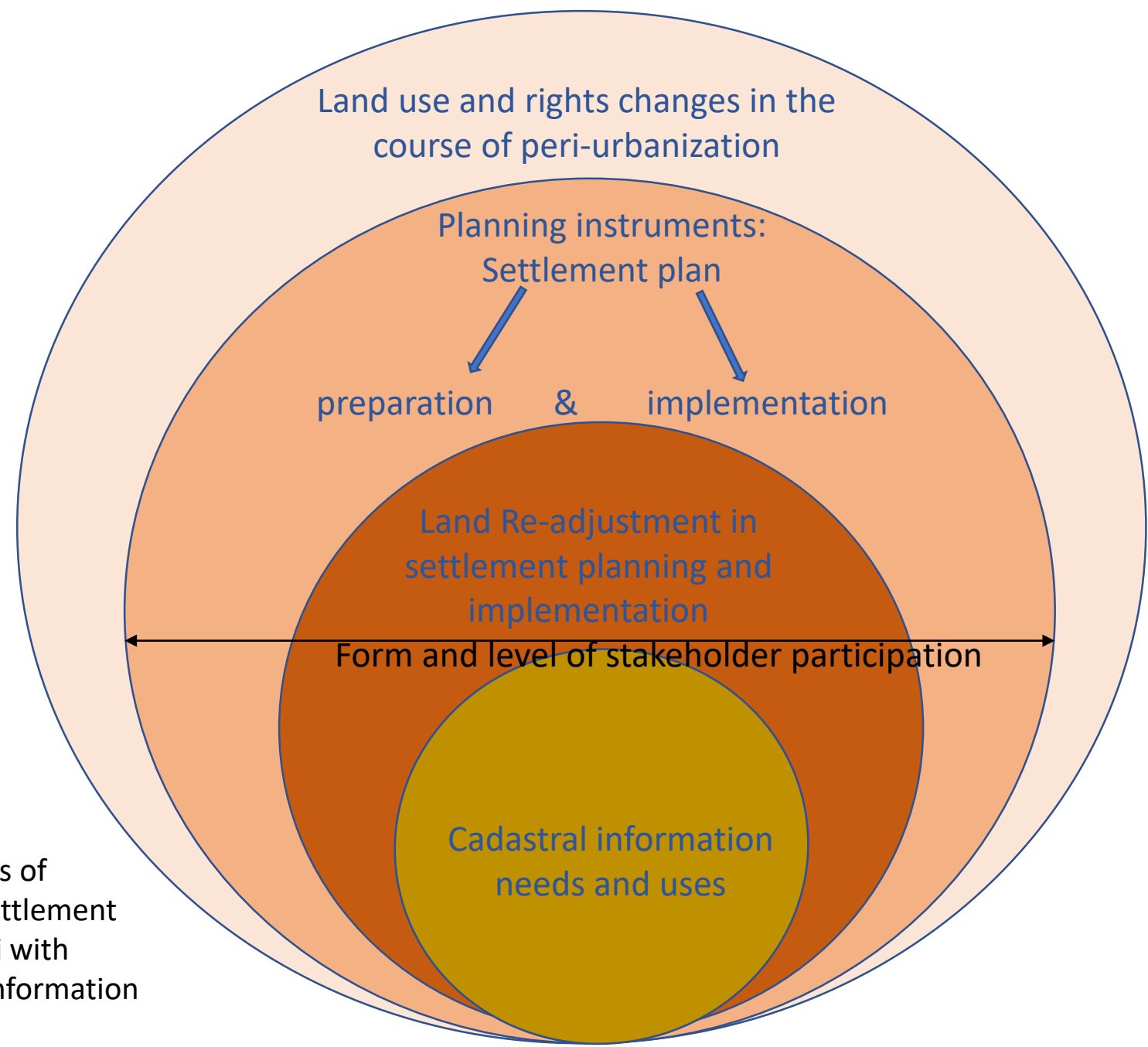
Alfred Gasore

21st November 2019



About the study

Settlement planning is conceptualized as two phases: preparation of plans and implementation



Forms and level of participation stakeholders is shaped by and shapes the process of planning and information needs and uses

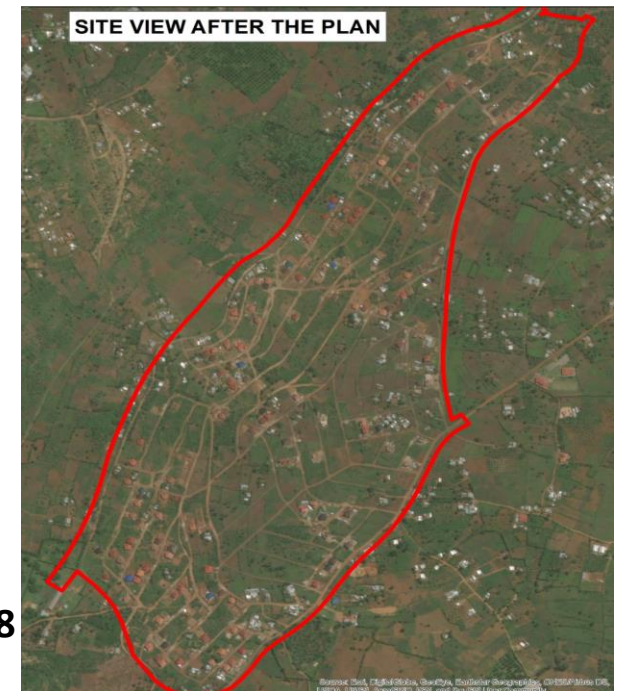
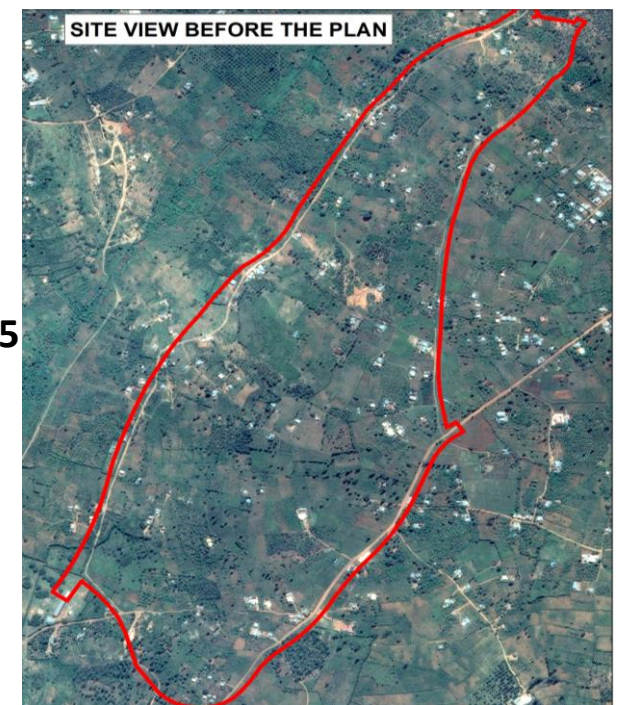
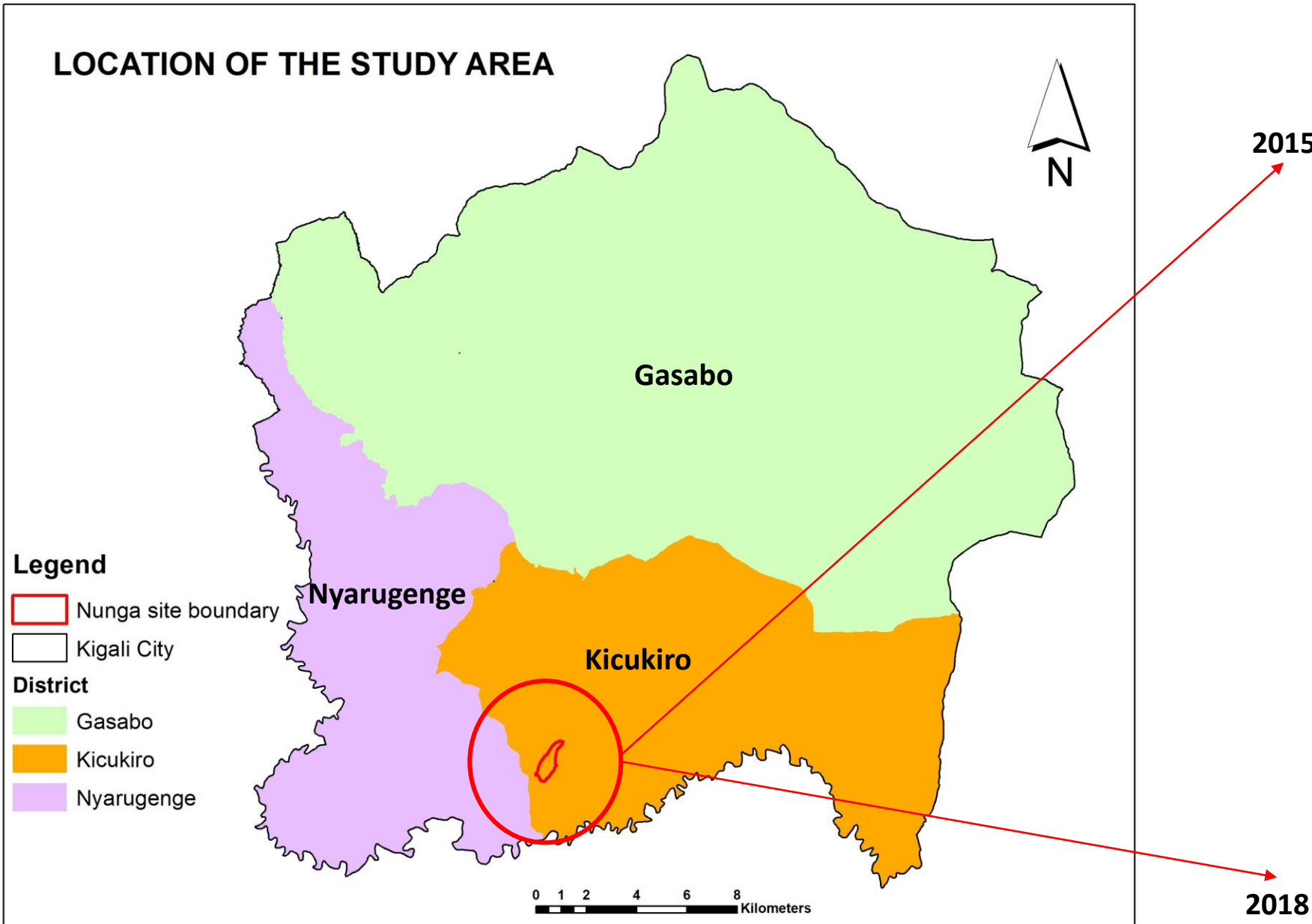
Objective: investigate the process of preparing and implementing a settlement plan in a peri-urban area of Kigali with specific focus on how cadastral information is used



Background of the case study

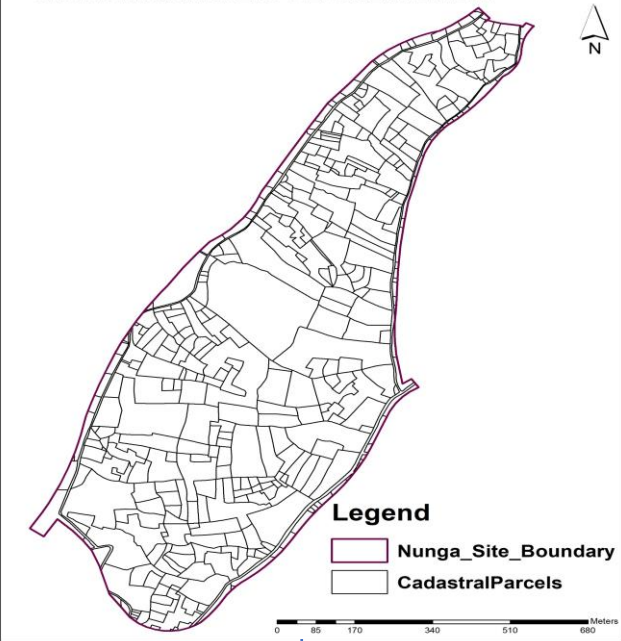
Study area Site

LOCATION OF THE STUDY AREA



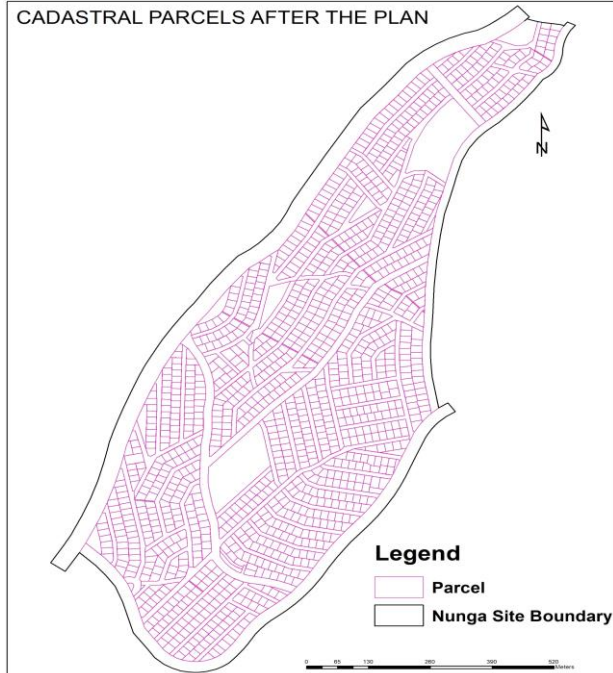
Parcel structure

CADASTRAL PARCELS BEFORE THE PLAN



- Irregular parcel
- individual parcels
- No access to roads

CADASTRAL PARCELS AFTER THE PLAN



- Regular and equal sized parcel
- with access to roads

Land readjustment

Participatory approach
was proposed by the
district

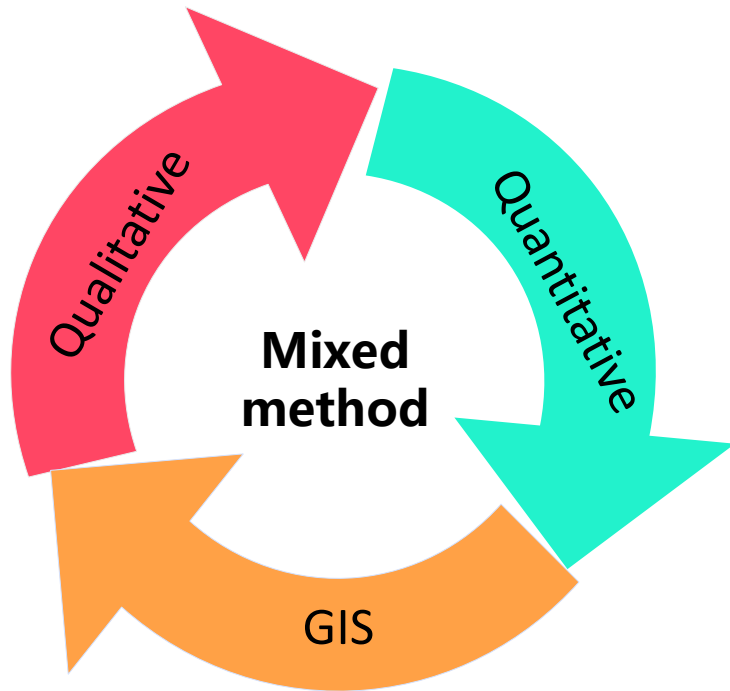


Two years to
implement the project

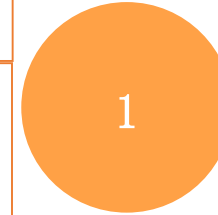
- Many people sold their land
- Relocation
- Land rights affected

Methods





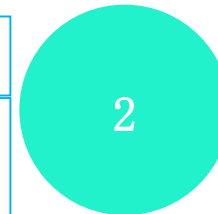
Landuse classification	Spatial analysis
<ul style="list-style-type: none"> ○ Mapping landuse change ○ Dynamics between the plan, cadastre and ground ○ Consistency between the plan and cadastre 	



Applies to

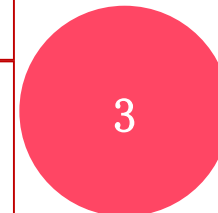
Sub-objective 1
Sub-objective 3

Questionnaire
<ul style="list-style-type: none"> ○ Individuals 'perceptions on planning



Sub-objective 1
Sub-objective 2
Sub-objective 4

Expert Interviews	Focus Group Discussion
<ul style="list-style-type: none"> ○ Process of plan preparation and implementation ○ Practices in land acquisition and reallocation ○ Uses of cadastral data 	



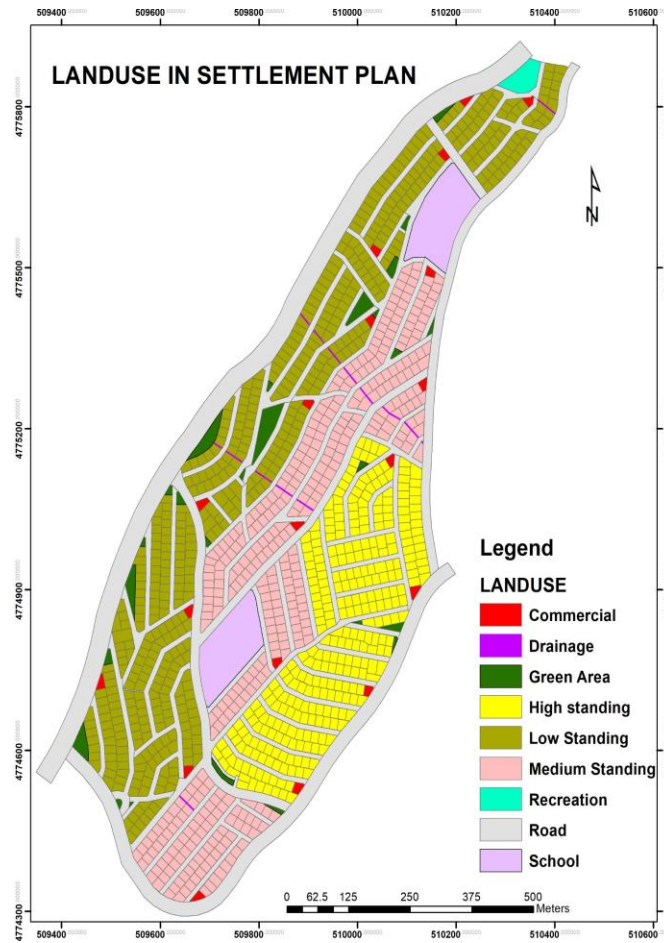
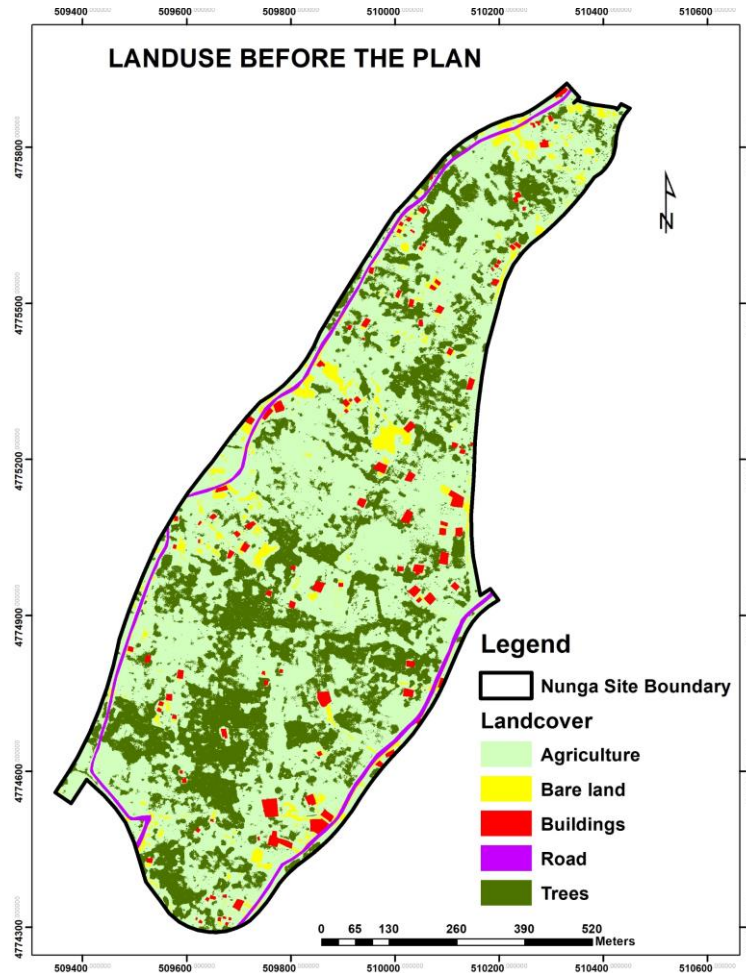
Sub-objective 1
Sub-objective 2
Sub-objective 3
Sub-objective 4



Specific objectives and main findings

1. To describe how land uses and rights changed during the plan implementation

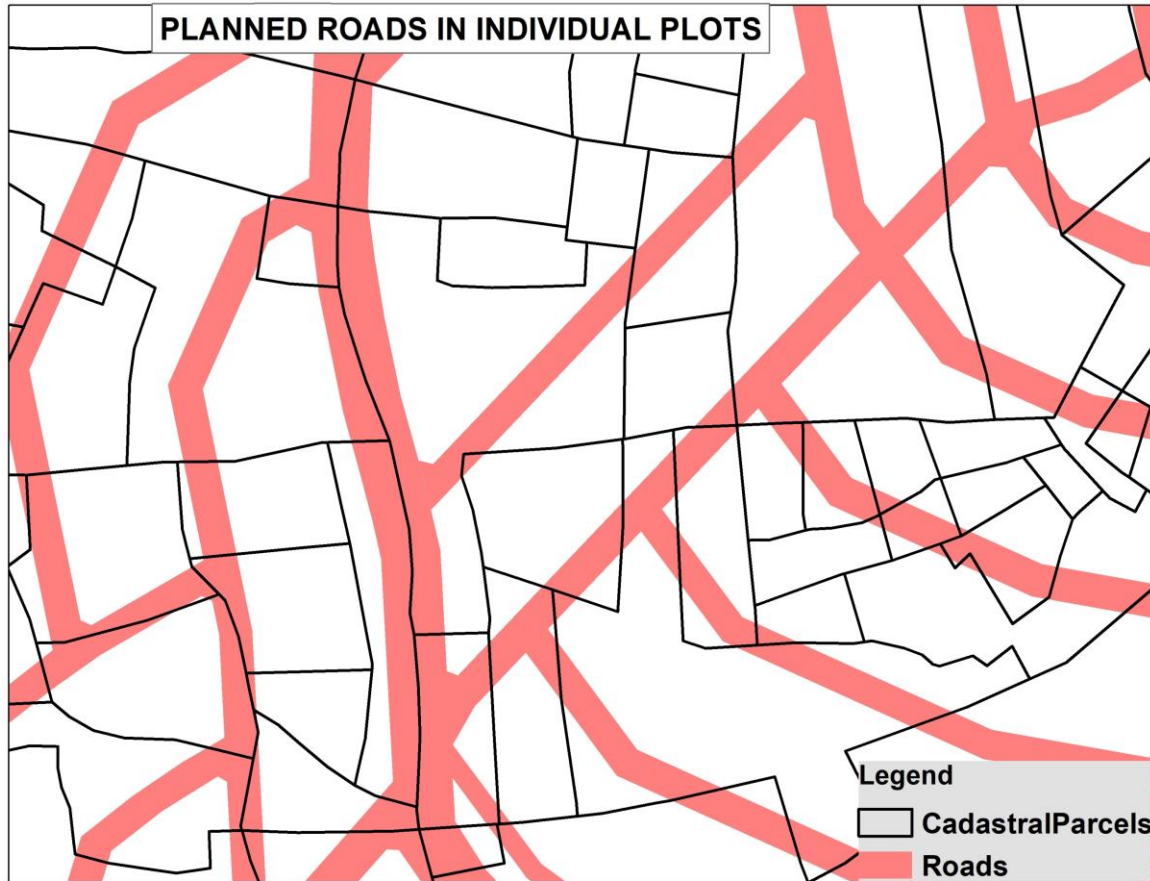
a. Landuse change



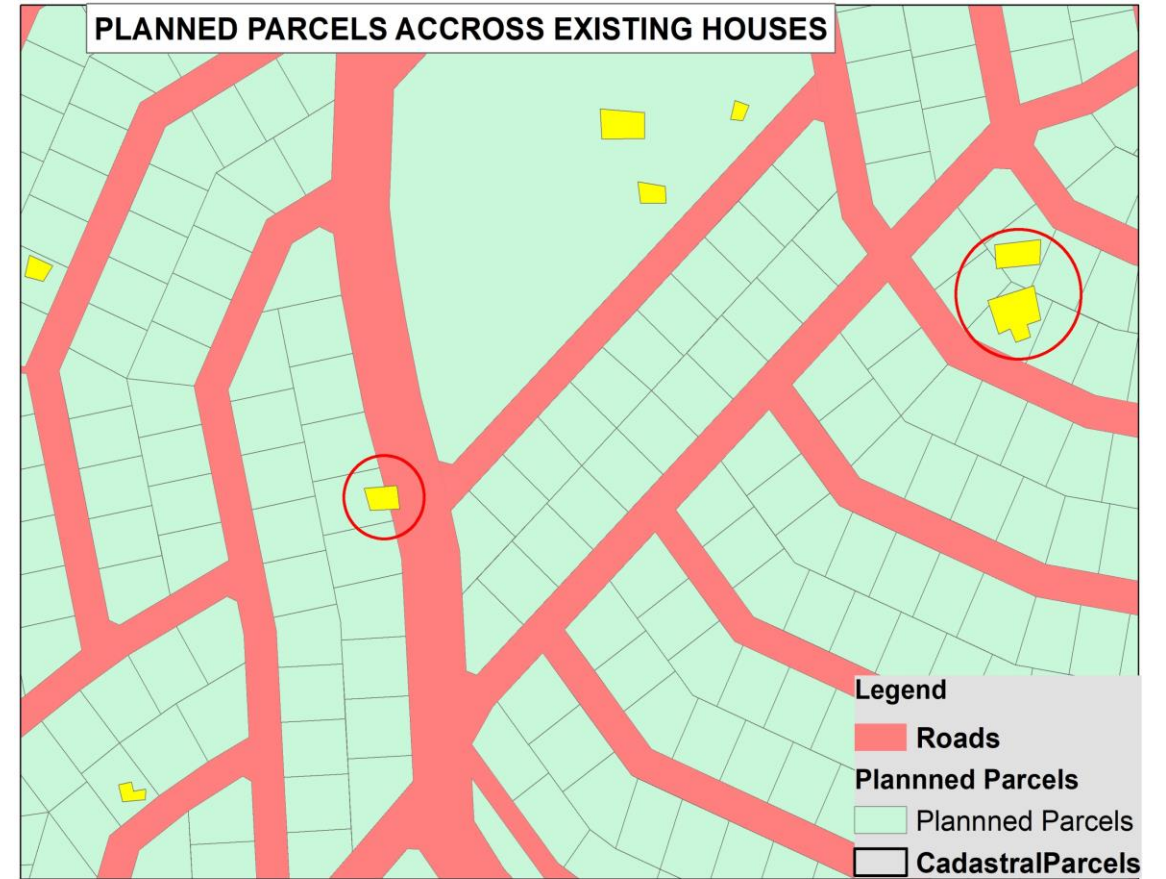
- Decrease of agriculture land (from 43.9% to 0%)
- Increase of road and houses size (1.7% to 26.1% and 1.8% to 12.2%)
- Vacant land (grassland) is the dominating landuse currently
- Some planned uses are not yet in place (schools and health centre)

b. Land rights changes/affected

- Planned roads affected individual plots

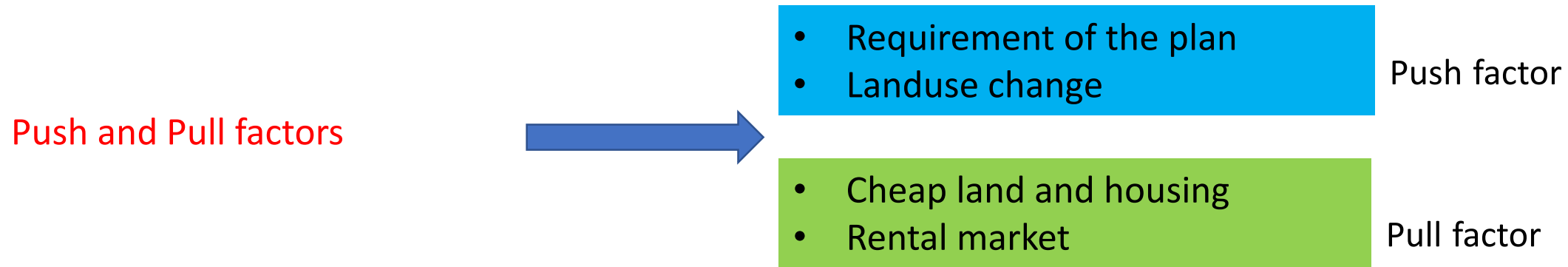
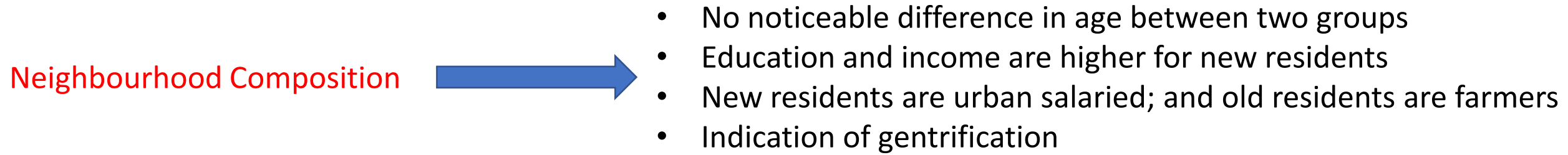


- Planned parcels affected existing houses



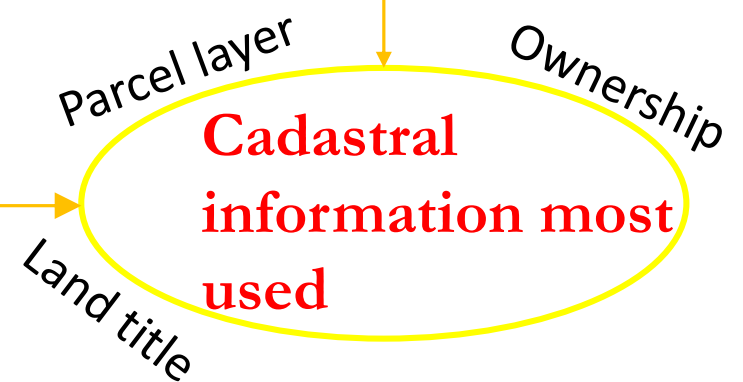
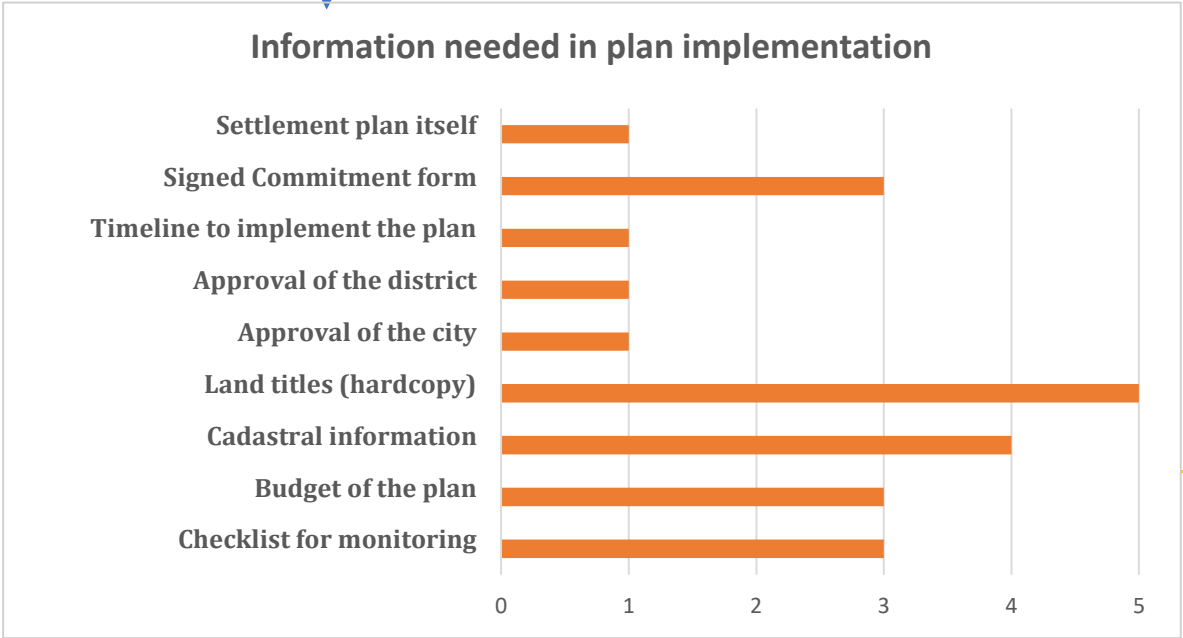
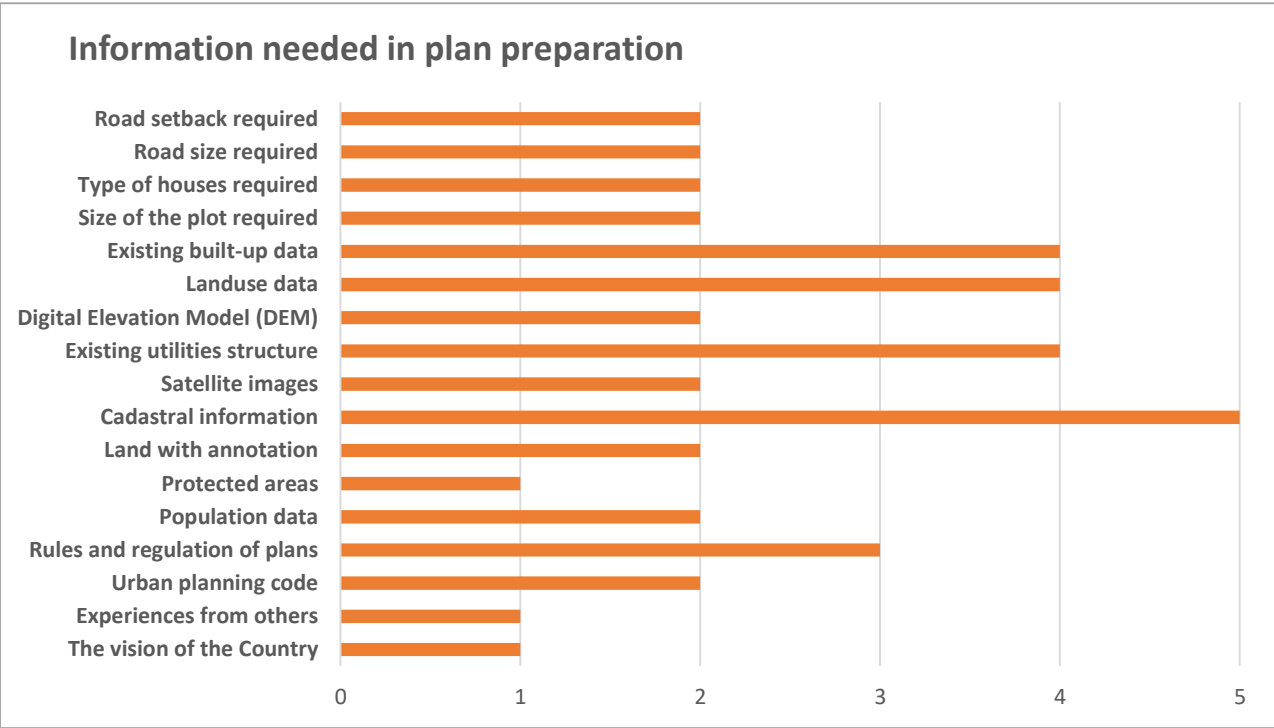
- Most changes in subdivision and use rights
- Lack of self determination on compensation and inheritance rights

2. To compare the neighbourhood characteristics of the site before the implementation of the plan and nowadays



3. To investigate what, by whom and for what purposes cadastral information was used in settlement plan preparation and implementation

a. Type of information used in planning



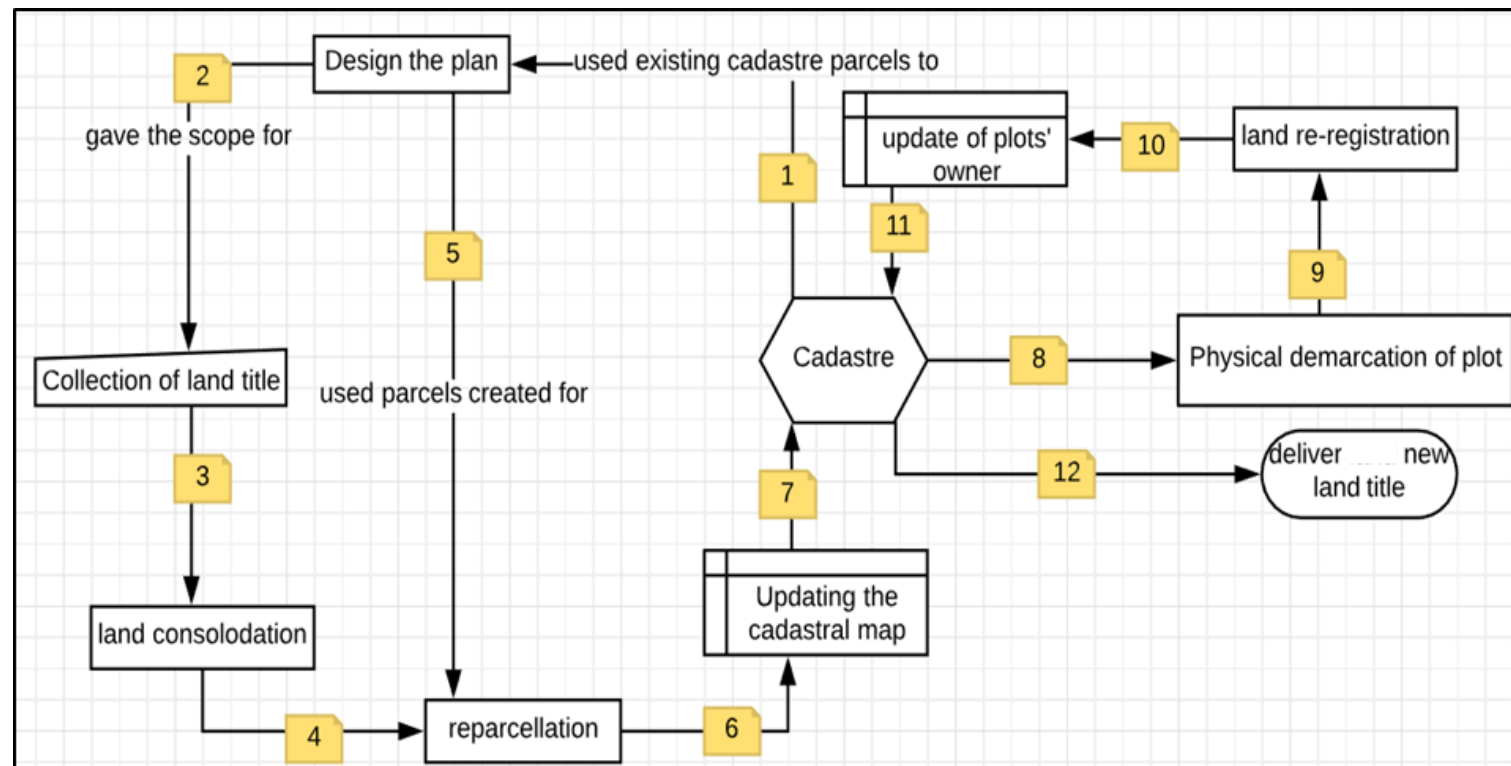
3. To investigate what, by whom and for what purposes cadastral information was used in settlement plan preparation and implementation

b. Uses of cadastral information



Cadastral information was used as the base map for planning:

- Inform parcel merging
- Inform re-parcellation
- Who owns what
- See the progress of the project
- Identify boundary changes
- Physical demarcation of plots
- Proof of ownership

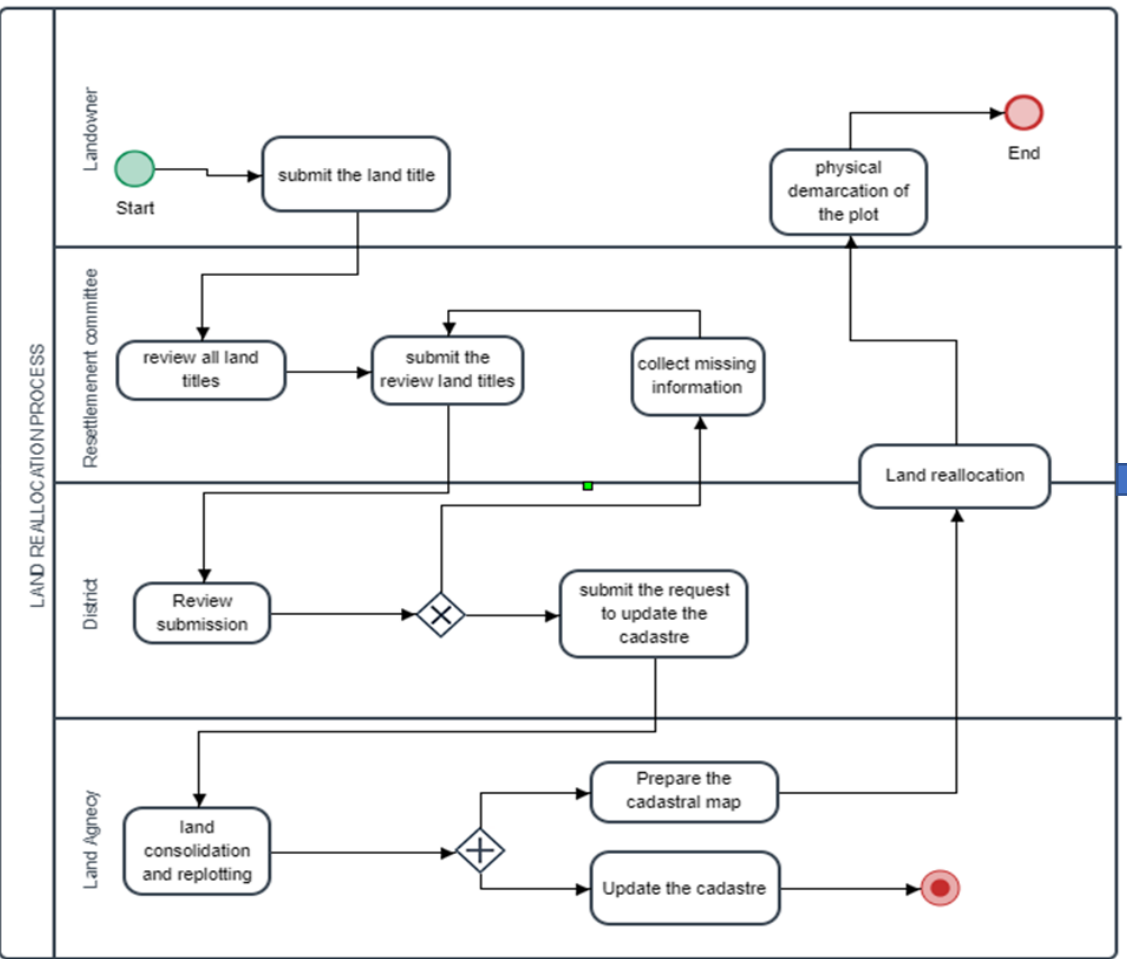


3. To investigate what, by whom and for what purposes cadastral information was used in settlement plan preparation and implementation

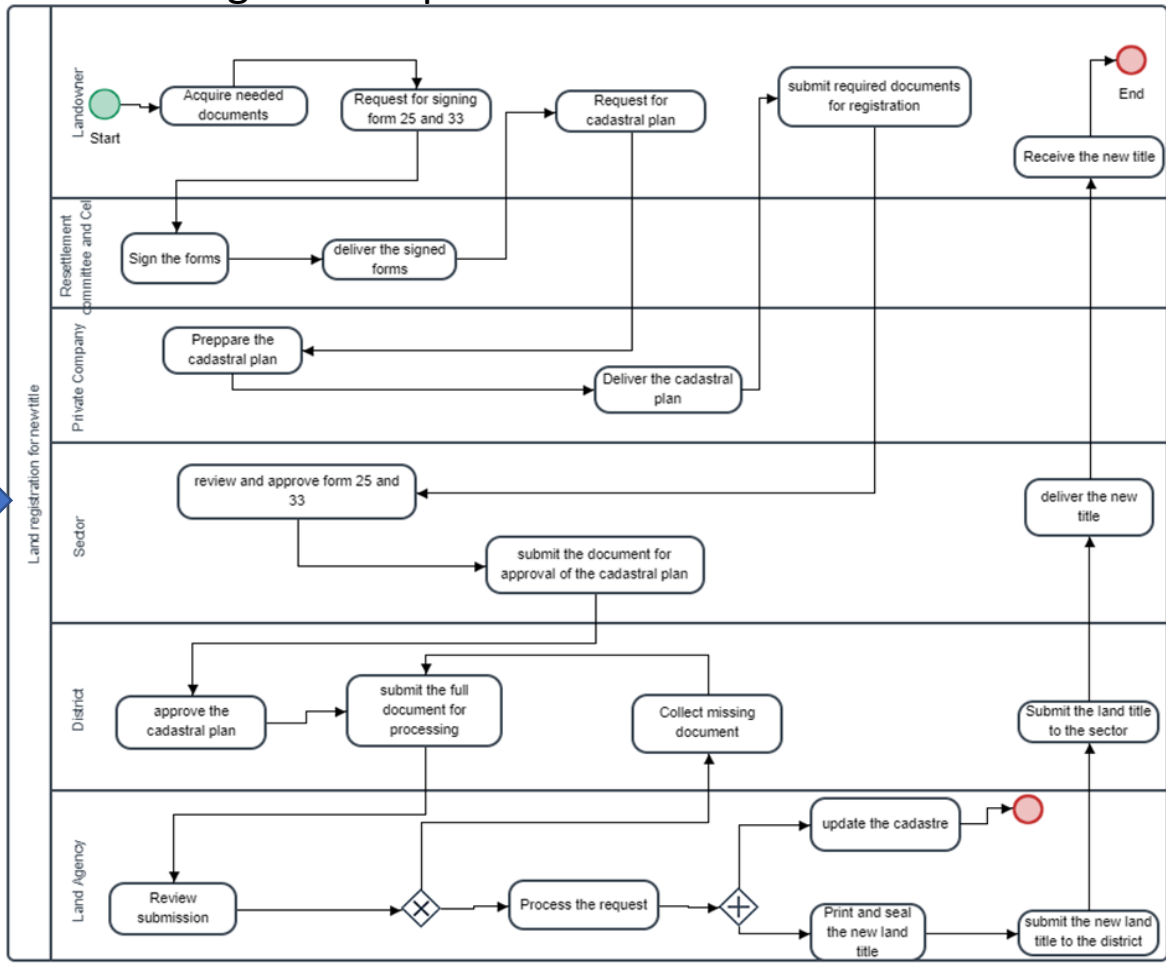
C. Land readjustment and the use of cadastre

- Deviation to standards of land readjustment on:
- cost sharing,
 - land reduction,
 - compensation

Land acquisition and reallocation



Land registration process

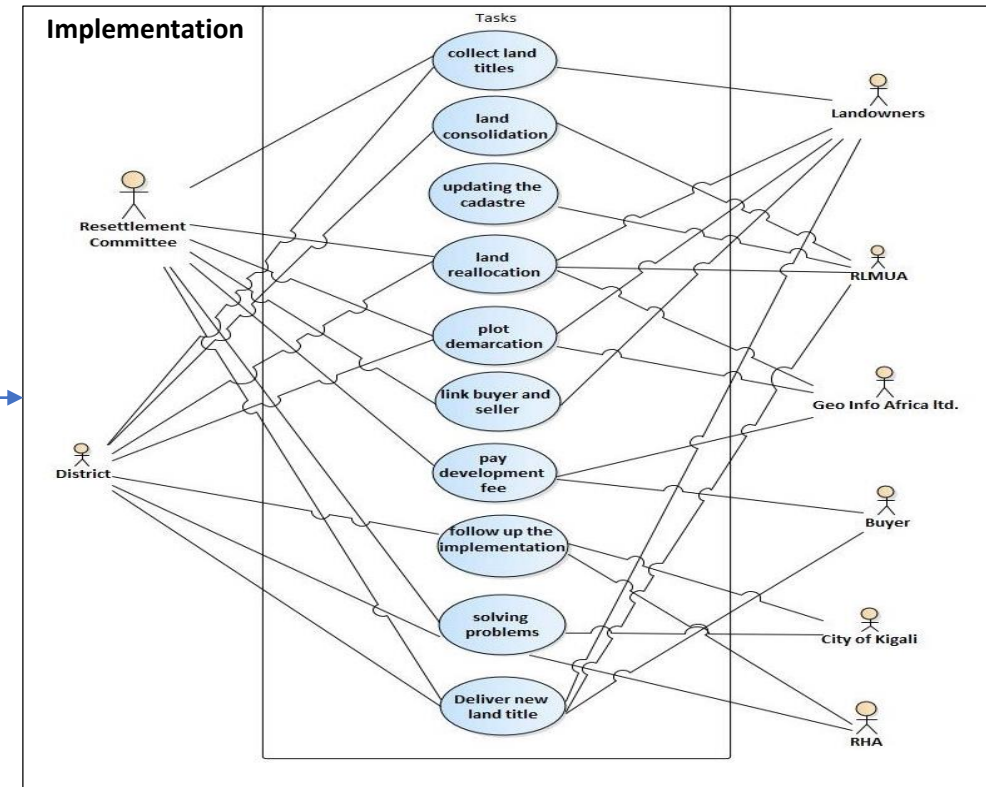
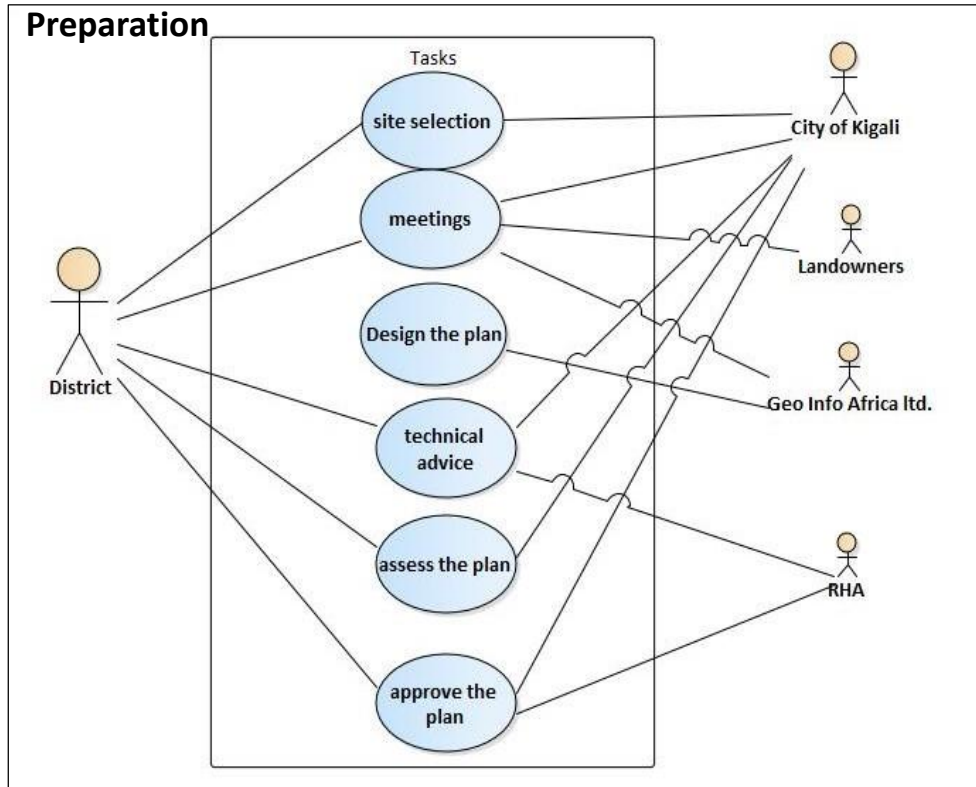


4. To describe the degree and kind of participation of residents in settlement plan preparation and implementation

a. Actors and level of participation



- Actors and participation levels increased from preparation to the implementation
- Participation via the committee



Participation level in plan preparation



Participation level in plan implementation

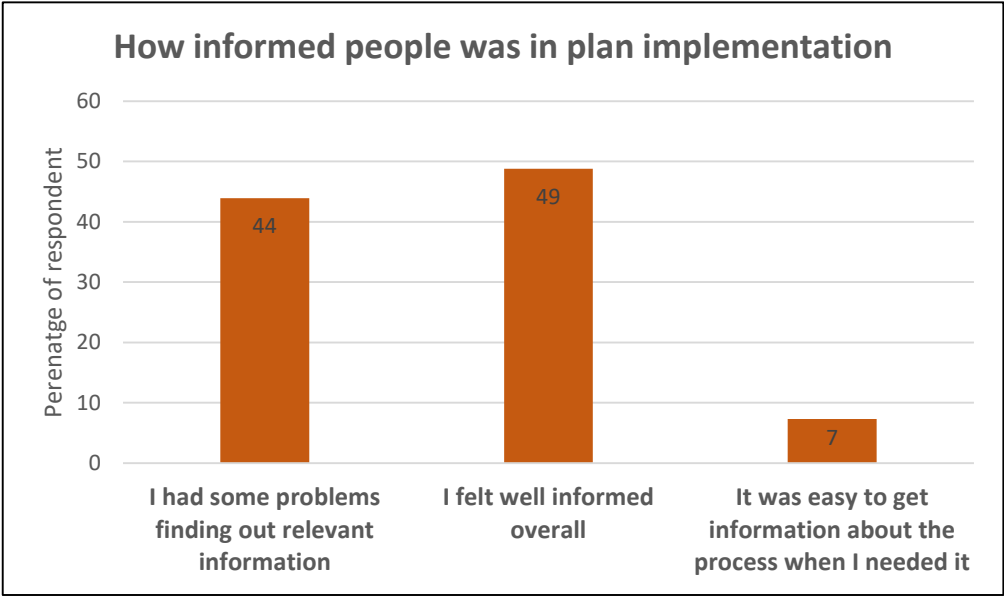


4. To describe the degree and kind of participation of residents in settlement plan preparation and implementation

b. How informed people were



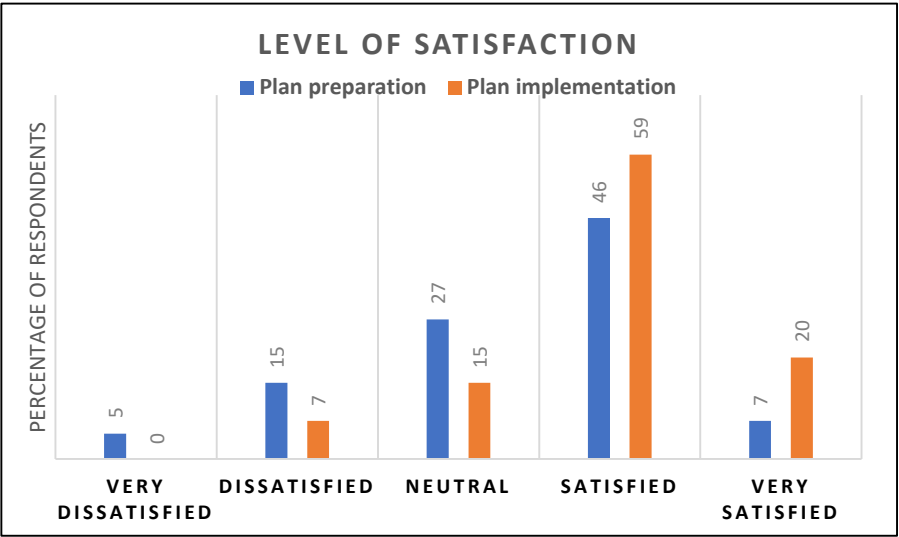
Majority of residents felt well informed



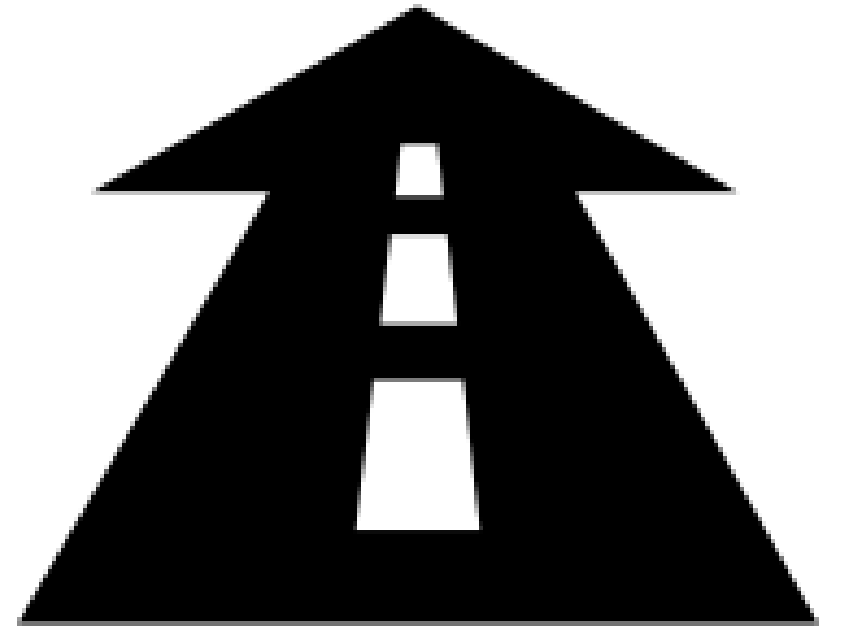
C. Satisfaction with planning process



Overall residents are satisfied



Recommendations



For the future research, I recommend more studies on:

- The dynamics of displacement within peri-urban areas as a result of planning
- Plan preparation and implementation without the cadastre
- The use of cadastral information in other planning domains and areas
- How “participation” manifests in practice of planning
- People’s perceptions and commitment in planning

For Rwanda,

- I recommend to revise land readjustment process in peri-urban areas of Kigali city, to improve the cost and benefit sharing among all landowners

Thank you!