

Participatory use of GIS

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Introduction

● Mobile GIS for planning and management

- Applications in the field
- Boundary disputes
- Conflict settlement efforts

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Fieldwork objectives

- The aim of the project was to derive the necessary information for the village government to develop their land use plans.
- Main activities of the project were to work with village community members to map the boundaries of the village and the natural forest reserves and to make an inventory of the natural resources potential of the village

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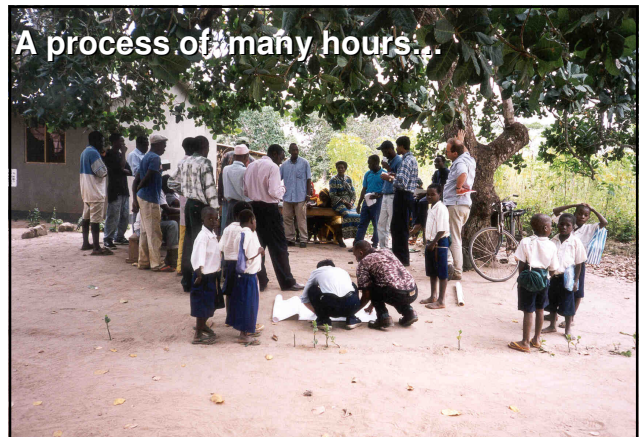


Satellite imagery as main data source

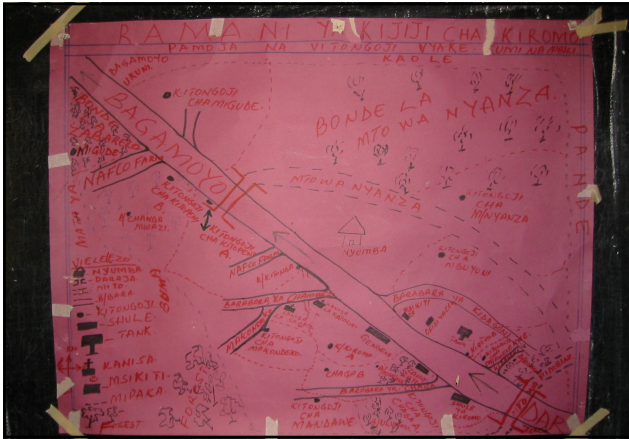
- Good for distinguishing physical features and for some socio-economic processes
- Social-cultural factors cannot be distinguished
- Depending on local knowledge and on-site observations



Making sketch maps



A process of many hours...



Result

Perceptions of
distance
and
importance



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Transects

- Data collection
- Sampling
- Local guides
- PDA



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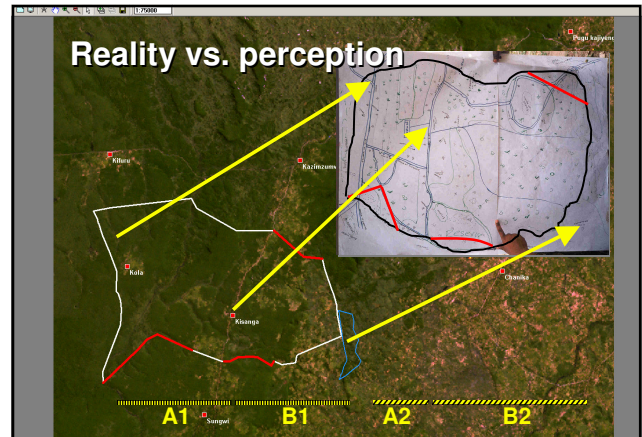
Recording

Boundary mapping
GPS coordinates
Need local knowledge

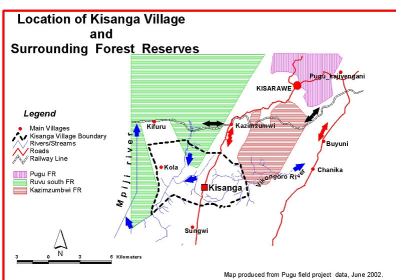


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Reality vs. perception

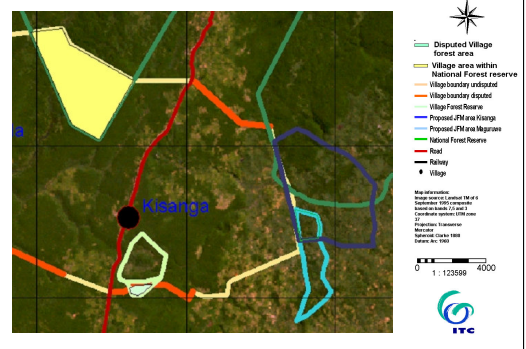


Resources and boundaries

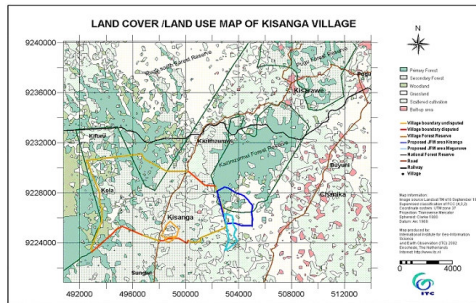


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DISPUTED AREA AND BOUNDARY MAP OF KISANGA VILLAGE



Boundary data inserted as layer



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Other activities and observations

- Recording anomalies
- Observe to understand
- Triangulation

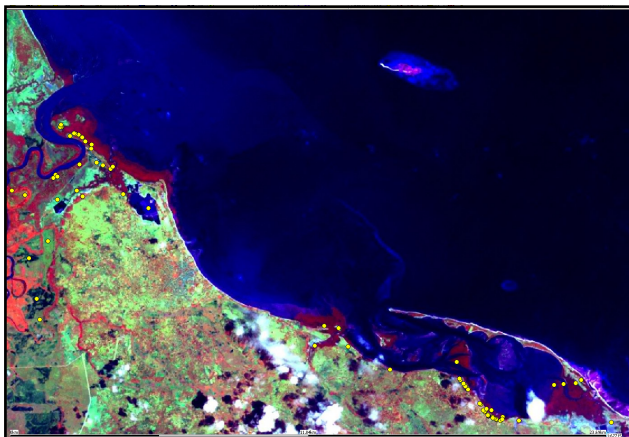
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Impact assessment



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Evaluating observations



Participation to:

- Identify problems
- Prioritise needs / establish demand
- Assess resources
- Design alternatives & strategies
- Implement plans
- Monitor & evaluate

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Obstacles to participation

- “high-level” resistance
- Local power balance
- Multiplicity of local interests
- Including women
- Including (ethnic) minorities
- Effort vs. result
- Time
- Cost

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Mobile GIS should:

- support ‘accountability’ expressed in terms of ‘transparency’ and ‘visibility’ of decisions
- mobile P-GIS does this, so long as there is a representative group involved in the transect and boundary walks.

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Mobile GIS should:

- promote ‘participation’ of the disadvantaged and less articulate, and usually, of women as a particular group – as above, mobile GIS will support this, if some training is given and the mapping activities are scheduled for the right time.

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Mobile GIS should:

- Make explicit use of local people’s knowledge of spatial boundaries, resource conditions, indigenous zoning principles, etc.

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Mobile GIS should:

- provide for ‘equity’ in terms of local manageability of the tools
- Mobile GIS has not yet achieved this, but the technology is becoming increasingly user-friendly.

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