IMPROVING ESTATE LAND GOVERNANCE IN MALAWI

Towards a National Land Information Management System

LAND SYMPOSIUM
Lilongwe, April 2016

Davie Chilonga
Ministry of Lands, Housing and Urban Development

COMPONENT 1

Creation and Exploitation of a
Nationwide Geographical Estates Database

OTHER COMPONENTS

Component 2: Upgrade of GTDRS/Develop new LMIS

Component 3: Performance Survey on Agricultural estates.

Component 4: Reviving Land Rent Roll System

Project Context

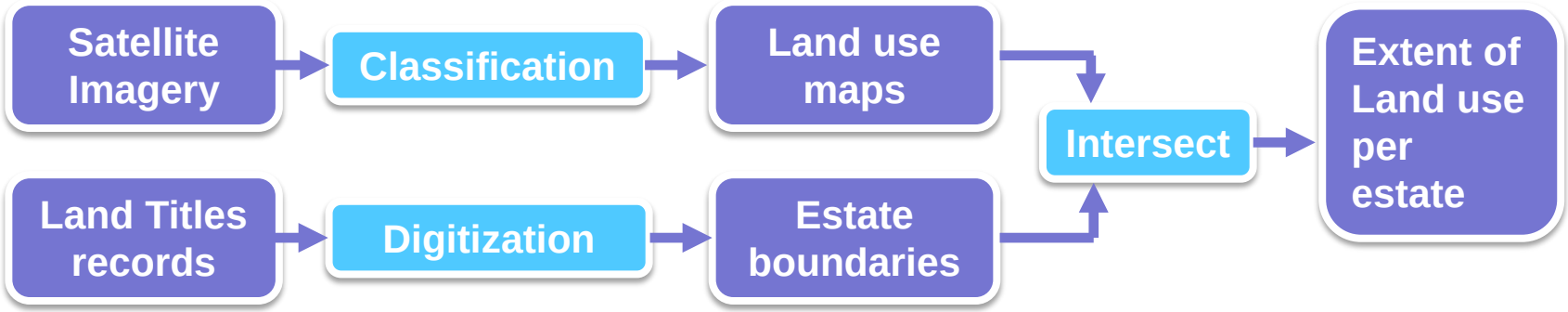
- Within the context of the National Export Strategy and Malawi's Growth and Development Strategy, there is a **clear need for locating available land for new commercial agricultural investment** to make productive use of the land. Terminating leases on those estates that have failed to meet the conditions of their lease agreement, will release valuable but underutilised land.

- With the rapid increase of population growth and the exerted pressure on land availability, a **modern land management system will become indispensable** to maintain social harmony.

- Because of currently very poor storage conditions, there is a **clear need for digitizing Deeds(**land ownership documents**).** The current situation is not only vulnerable and non-sustainable but also greatly reduces efficient access to this information and makes monitoring and enforcement of land lease agreements, such as payment of rents and updating expired leases, very difficult.

Project History

- Program *Use of Satellite imagery for Agriculture and Land Management applications in Malawi*
  - Funded by ASWAp-SP. Duration 2013 - 2014
  - It started with MoAIWD: Land-use mapping and Acreage estimation; Maize production estimation; Rural road rehabilitation
  - Then MoLHUD: Assessment of detailed information on the use of land of Estates, and in particular the degree of farming (goal: optimizing land-use for food production and commercial agriculture)



  - Pilot I (2013): Testing of concept (satellite image based land use mapping)
  - Pilot II (2014): Focus on Deeds digitization & Field verification

Project Objectives

1. To build a nationwide geographical database of estate land under leasehold titles in Malawi by computerizing all piece files relating to lease agreements in 4 months time (Work Package 1 - Data Entry)

2. To immediately benefit from the investment made, the development of custom GIS tools is proposed to exploit the created data and hence satisfying the identified needs of different stakeholders (Work Package 2 – Custom GIS)

   Within the project lifetime of 10 months, the consultant is expected to deliver extremely tangible results: A nationwide Estates Database that is fully in use and daily exploited by trained MoLHUD staff.

3. To assist the MoLHUD in setting up a nationwide campaign of Field verifications of estate land and their lease contracts (Work Package 3 – Field Verifications)

4. To transfer the established database to the existing Systems, and ensure connectivity (Work Package 4 - Connectivity)

Project Goals

Goals that will be achieved by means of a geographic Estates database and custom GIS Tools:

- Ensure the continued existence of lease contracts by digital storage.
- Identification of available (and suitable) land for investors in Agriculture sector.
- Field verification to update the current status of lease contracts.
- Gain efficiency in land management, in particular in daily procedure in the Regional Offices of Lands
- Improve policy, planning and insight due to statistics and analysis
- Enforcement of covenants stipulated in leases, usage and rents in particular.
- Gain efficiency in physical planning procedures and application evaluation.
- Gain efficiency and eliminate ambiguities in land dispute resolution.
- Improve access to information through geography.

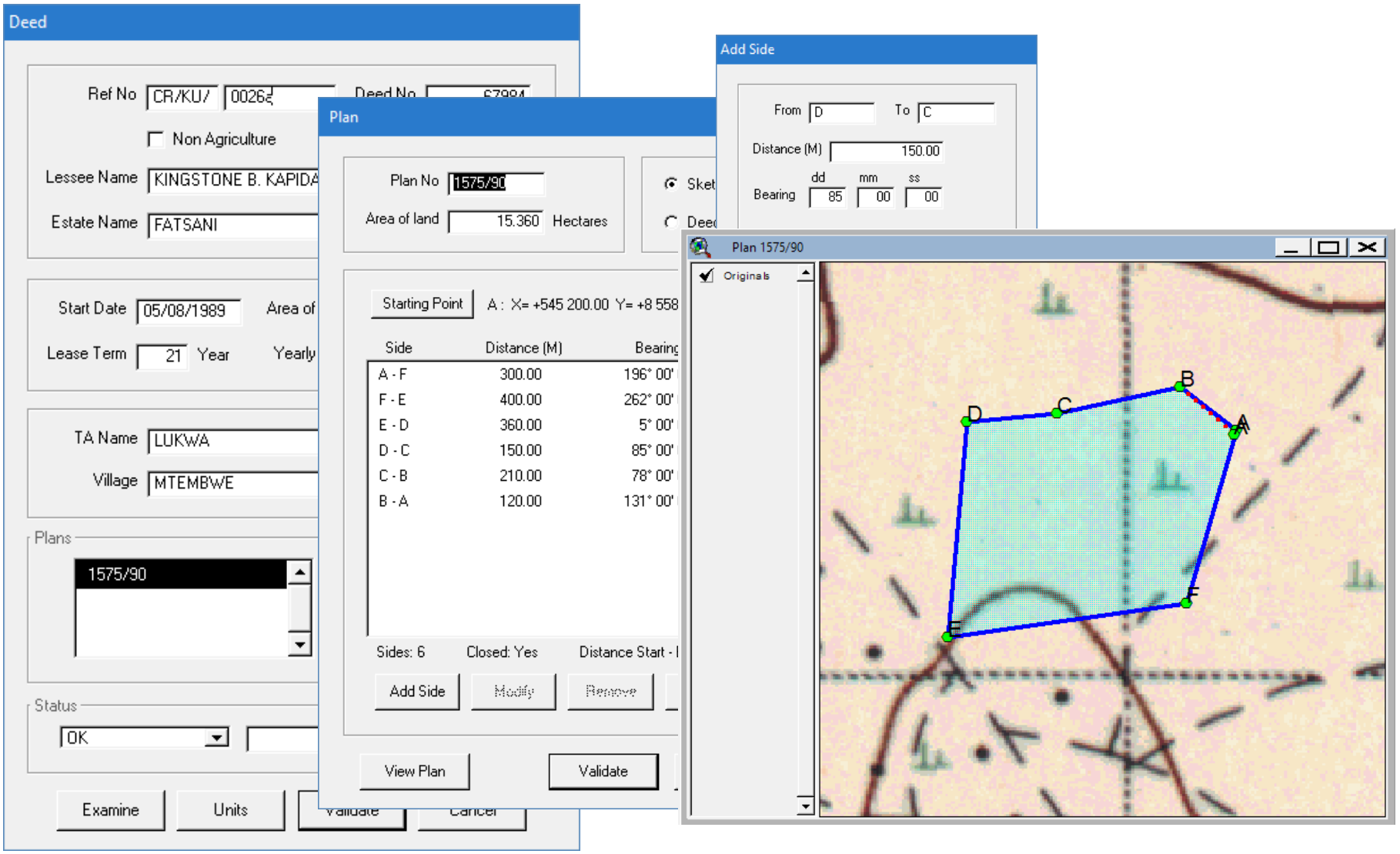
WP1 – Data Entry

- Objectives: exhaustive computerization of piece files related to lease contracts of Estate land in Malawi.
- Definition of Data to be captured
  - All piece files located in the 3 Regional Offices of Lands
  - All estates, independently of their nature of use (i.e. agriculture or not)

Region	Regional Office	# Piece files
North	Mzuzu	6,000
Central	Lilongwe	20,000
South	Blantyre	17,000
	Total	**43,000**

- Subcontractor: Lilongwe University of Agriculture and Natural Resources providing 3 supervisors, 16 operators and 1 project manager
- Planning: April – Augustus 2016 (just started)
- Used Software: Deeds Data Entry Tool (DDET)

WP1 – Data Entry Software



WP1 – Archives

WP1 – Data Entry Lilongwe

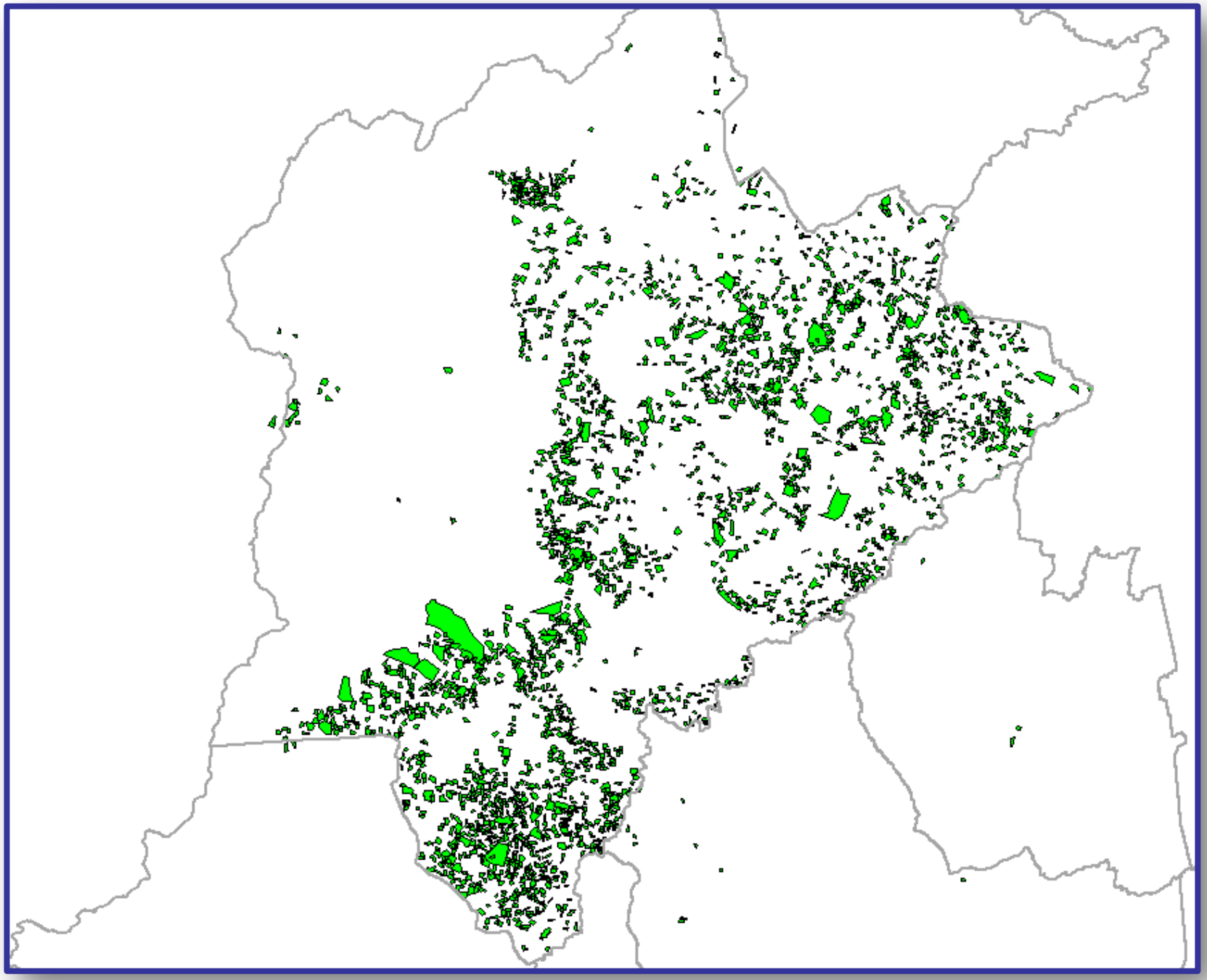
WP1 – Data Entry Blantyre

Other Work Packages

- WP2 – Custom GIS Tools
  - Objectives: To immediately take full benefit of the investment made, develop a custom Geographic Information System (GIS), aiming to fully exploit the high potential of the created Estates database.
  - Users: Different departments of the MoLHUD: Lands, Surveys, Physical Planning, including their Regional Offices.
  - Technology and Architecture: Open Source Quantum GIS/ Python + PostGIS BD
- WP3 – Field Verifications
  - Objective: To validate and/or update the information captured from the piece files: Administrative information, Estate Boundaries, Land use information
  - Methodology: definition of procedures and protocols
  - Custom Software Tools:
    - Selection of Estates to verify
    - Creation of individual field verification documents, datasets to be uploaded to the field devices, Creation of documents to support the logistics

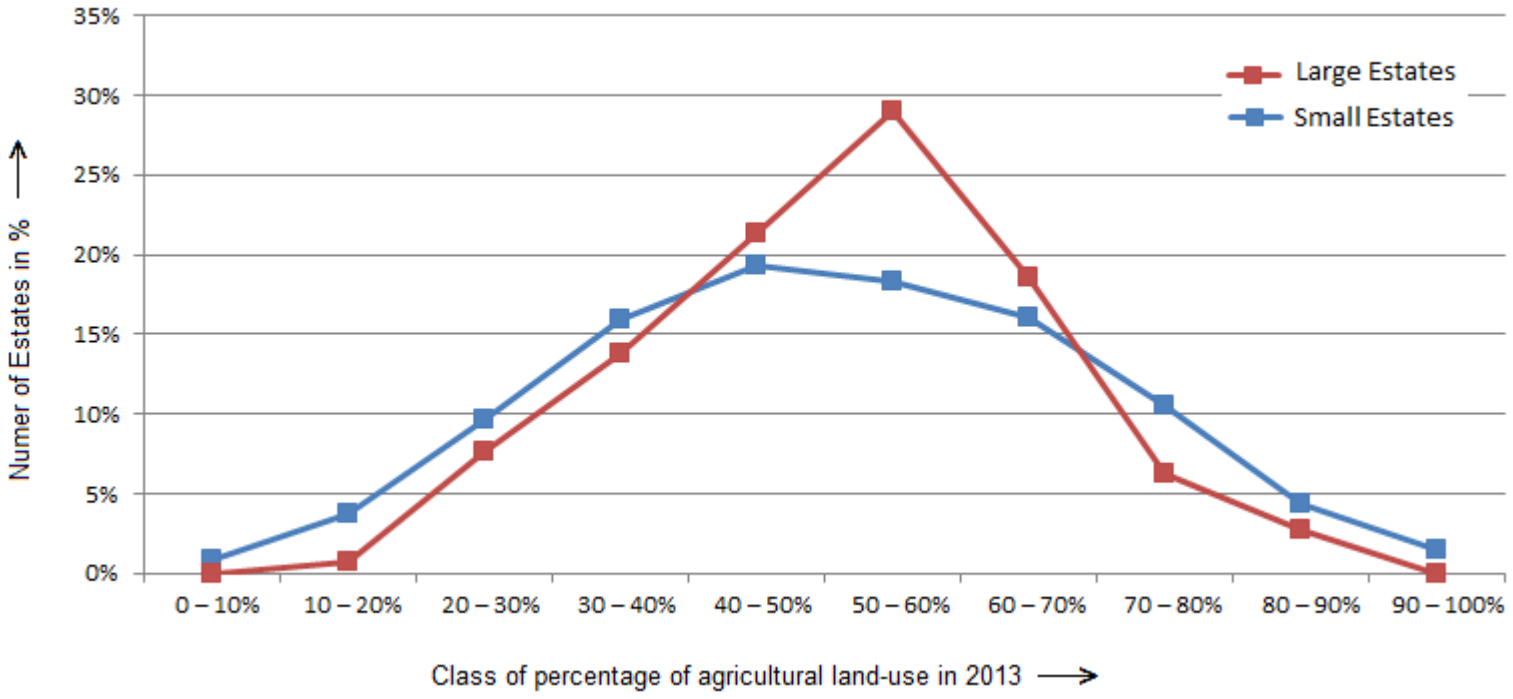
Pilot Project - Results

- Data entry
  - 3734 land title records were captured (50% of Kasungu).
  - This represents 102,000 Hectares
  - The lease term of 90% of the captured land titles is expired
  - 45% of the captured land titles are a Deed, 55% are accepted offers.
  - 26% of the estates overlap significantly with another estate (>10%)
  - The overall quality of the information is relatively good (Deeds better than offers)



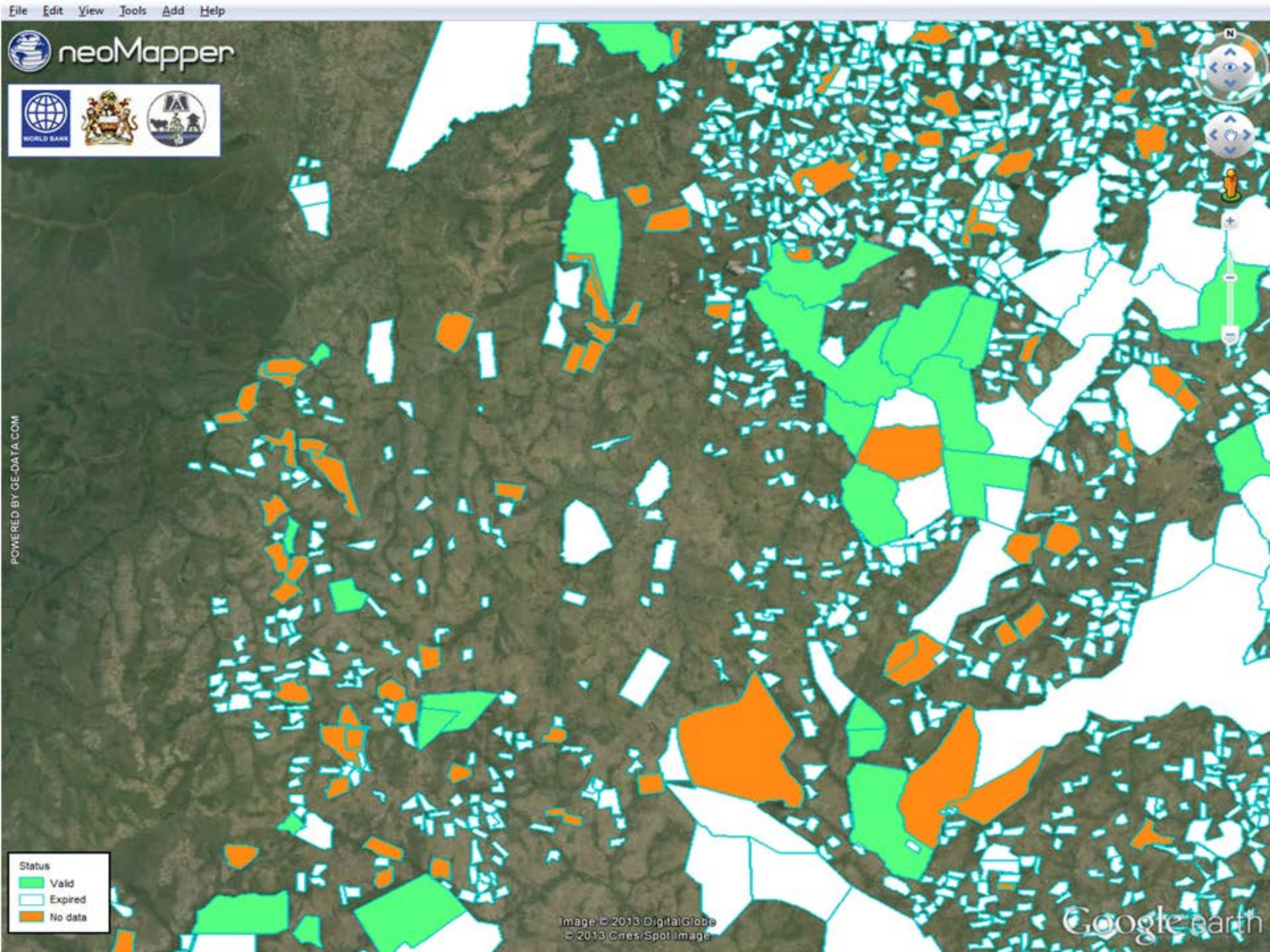
Pilot Project - Results

- Land use
  - 48% of the total acreage within the studied estates is used for Agriculture
  - 50% of all studied Estates have less than 50% agricultural land-use.



Pilot Project - Results

- Field verifications
  - Field verification operation of 200 estates (average of 6.6 estates per day per team)
  - Significant rate of changed ownership:
    - 46% of the registered lessees was no longer alive.
    - 33% of estates were subdivided (in use by several different persons)
  - 20% of estate owners or representatives reported land disputes or encroachment issues
  - GPS surveyed estate boundaries (small sample) showed significant difference with the digitized plans
  - 79% of the estate owners or representatives declared that the estate area used for agriculture is higher than 80%. This is significantly higher than the observations made when analysing the land use based on satellite image classification, where 80% of the estates show agricultural land use between 40% and 80%.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neoMapper

CR/KU/320

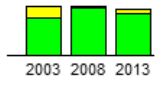
General Information	
Ref. No	CR/KU/320
Deed No	320
Estate	
Owner	Chiphaso
TA name	Wimbe
Village	Wimbe
Offer date	01/07/1979
Term (in years)	99
Status	VALID
Declared Acreage	614.29 Ha
Measured Acreage	606.13 Ha

Land use 2013

	Ha	%
Agriculture	346.08	57.10
Doubt	24.80	4.09
Non Agriculture	235.25	38.81

Evolution of Agricultural Land

	Ha	%
2003	401.50	66.24
2008	399.47	65.90
2013	370.88	61.19

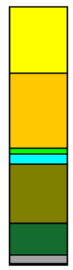


Difference between 2013 and reference years

	Ha	%	Class
2013 - 2003	-30.62	-5.05	Stable
2013 - 2008	-28.59	-4.72	Stable

Detailed Land use 2013

	Ha	%
Maize	157.01	25.90
Other Ag.	176.09	29.05
Pasture	12.98	2.14
Fallow	22.68	3.74
Savanna	138.26	22.81
Forest	75.86	12.52
Urban	20.47	3.38
Water	0.65	0.11
Clouds	2.12	0.35
No Data	0.00	0.00



% Ag. land 2013
- 0 to 20
- 20 to 40
- 40 to 60
- 60 to 80
- >= 80

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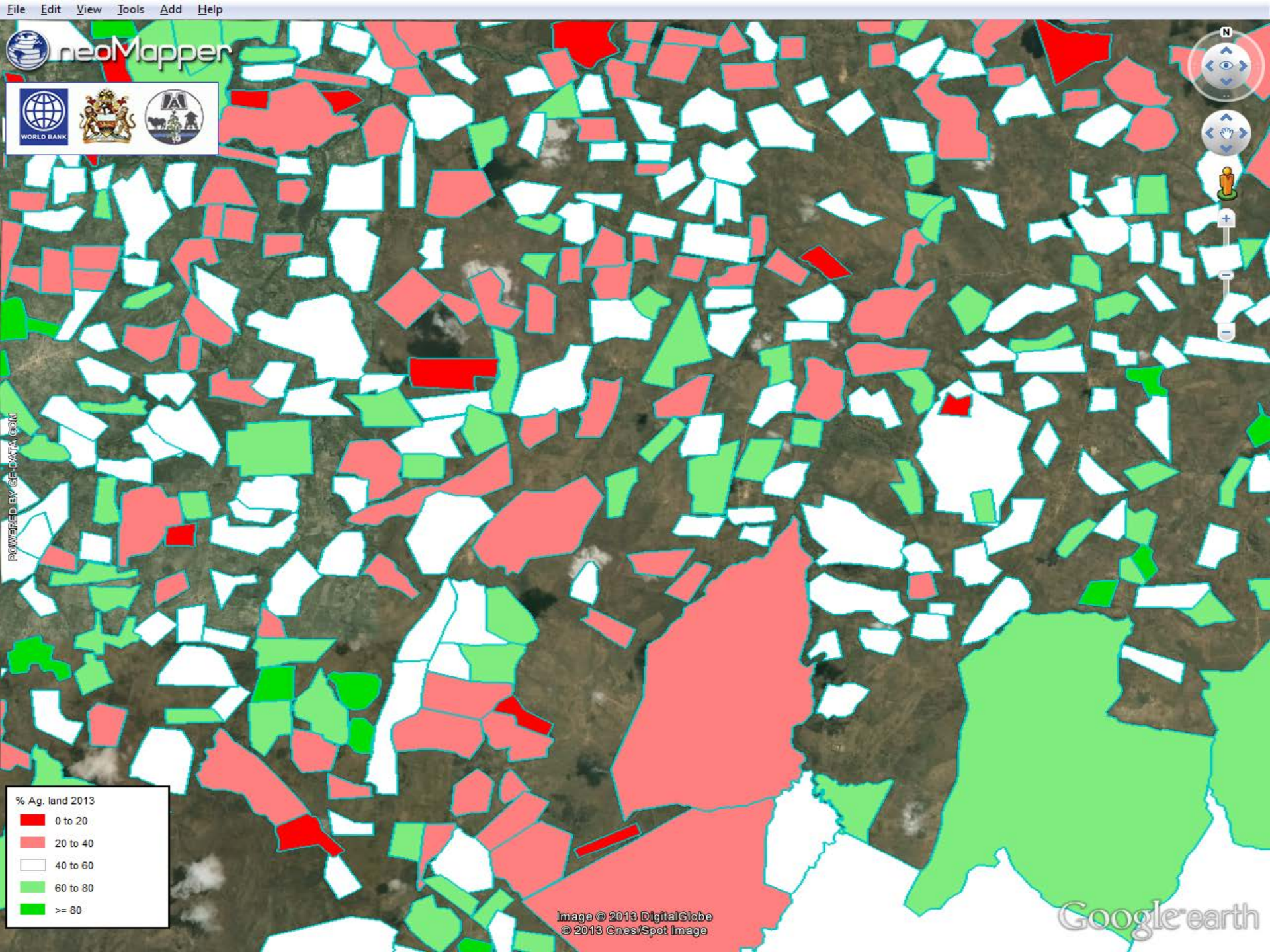

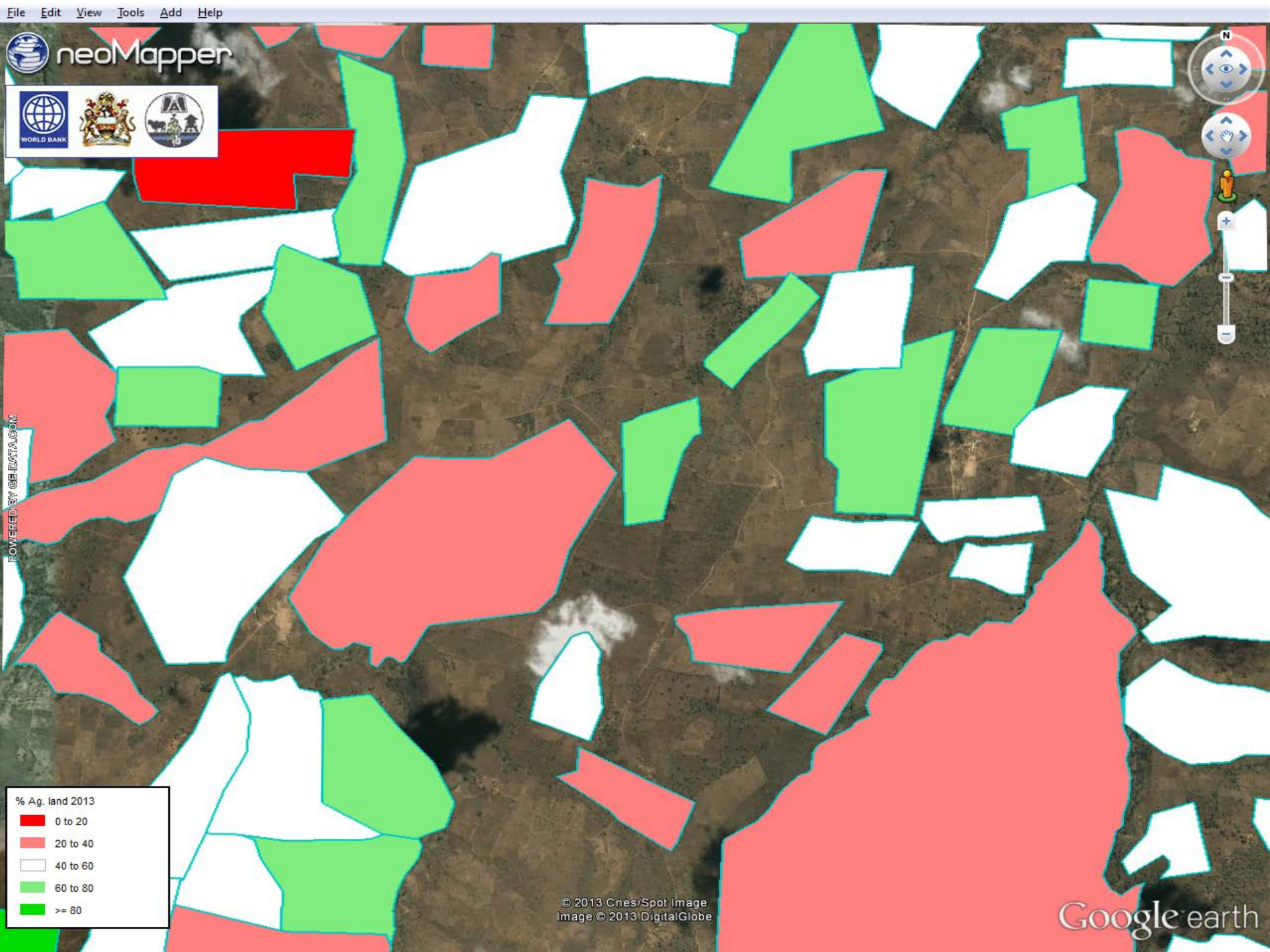
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neoMapper
WORLD BANK
N
% Ag. land 2013
0 to 20
20 to 40
40 to 60
60 to 80
>= 80
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Some Policy implications

i. **Underutilisation of arable land affect agriculture production**

ii. **It impacts on food security**

iii. **Non payment of Ground rent affect revenue collection by government**

iv. **The Ministry has intensified efforts to collect outstanding ground rent**

v. **It has also intensified issuance of reminders to lessees to comply with covenants**

Discussion / Questions

- Thank you for your attention