Helping countries generate the evidence base and policy dialogue to improve quality & benefits from domestic investments

EXAMPLES FROM ETHIOPIA AND MALAWI

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Motivation and Context of better data

Large scale land acquisition a high profile issue; but basic questions cannot be answered

- How much land has been transferred? What % of land is actually used/abandoned?
- Is use in line with contracts/investment plans; do large commercial farms benefit local communities?
- Are lease fees collected; do they reflect land values?
- Which farm sizes are most efficient? How to exploiting synergies btw small & large
- How can investment best catalyze rural growth?

Domestic investors

- What is importance of domestic investors?
- How do domestic investors strategy differ from international
- Reputational risk a concern?

Data needed for designing policy and tracking progress

Lack of data & analysis: Weakens ability to understand structural transformation

- Debate not always well-informed; risk of ideology & paradigms substituting for evidence in policy decisions
- No monitoring to hold investors to account and re-assign non-performing land

Assist countries to build data and evidence on a routine basis

- work with national statistical agencies – coordinate with Ministries, investment agencies and other stakeholders
- Complete overview of all large farms (as administrative data by agencies in charge)
- Large farm surveys – sampling based on inventory
  - listing to verify inventory data
- Use of remote sensing (shape files large farms and training data)

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Ethiopia: Basic data on commercial farms - key for rational policy debate

Lack of large farms data a problem

- Undermines ability to plan/monitor investments
- Encourage speculation and unproductive use; polarization of asset ownership
- Creates reputational risk for investors

Analytical support towards improving large farm survey

- Large farm survey already in place, but low quality
- Significant capacity building NSO (assistance WB and GIZ)
- Improve sample frame (w. investment agency)
- Review of questionnaire

- See:Ali, Daniel; Deininger, Klaus; Harris, Anthony. 2016. Large Farm Establishment, Smallholder Productivity, Labor Market Participation, and Resilience : Evidence from Ethiopia. Policy Research Working Paper; No. 7576. World Bank, Washington, DC. © World Bank.
- https://openknowledge.worldbank.org/handle/10986/23932

Time path of large farm establishment

	Farms	p.a.	Area	Avg.	Tigray	Afar&Som	Bshg&Gba	Amhara	Oromia	SNNP
Total	6,612		1,328,883	200.99	1,028	355	980	1,857	701	1,686
Bef. 1991	302		211,074	698.41	17	47	11	36	103	86
1991-1992	394	197	31,431	79.72	372	0	0	14	1	6
1992-2002	1,234	112	206,587	167.46	372	31	48	342	175	265
2003-2006	1,261	315	168,211	133.4	93	43	64	694	124	242
2007-2008	1,586	793	314,775	198.47	105	99	342	280	173	587
2009-2010	1,093	547	231,651	211.99	39	66	375	287	72	254
2011-2013	742	247	165,154	222.62	30	69	140	204	53	246

Land utilization by large farms (2014)

	No. of farms	Holding size in ha	Cultivated land ha	Share utilized
Total	6,612	1,552,262	852,936	0.55
By Size (ha)				
< 20	392	45,409	23,921	0.53
20-50	1,031	252,779	129,940	0.51
50-100	2,224	329,036	176,438	0.54
100-500	2,292	682,137	396,692	0.58
500-1000	243	155,970	88,106	0.56
>1000	162	303,211	193,712	0.64
By investor origin				
Ethiopian	6,287	1,570,323	859,211	0.55
Foreign	134	80,445	47,677	0.59
Joint	36	11,989	7,087	0.59
By major crop				
Maize	885	165,995	93,493	0.56
Sorghum	843	117,612	62,316	0.53
Wheat	242	118,816	85,419	0.72
Sesame	2,494	607,417	314,268	0.52
Coffee	977	209,152	124,579	0.60
Cotton	373	263,526	163,442	0.62
Other	797	286,021	165,293	0.58

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Contribution to the economy

	Total	Maize	Sorghum	Wheat	Sesame	Coffee	Cotton	Other
Lease payment								
Length of lease reported	37.65	56.36	20.97	61.67	20.72	59.5	22.56	60.52
if yes, years	31.77	31.77	24.31	26.43	23.01	39.54	31.26	36.25
Annual lease fee reported	36.43	54.89	20.12	52.81	20.22	59.38	20.83	58.06
if yes, lease fee (Birr/ha)	474.07	190.44	115.56	1539.29	167.13	210.67	904.57	1202.01
Other payments rep.	10.09	18.65	6.59	10.54	6.91	8.16	10.47	16.27
if yes, amt. (Birr/ha & a)	375.31	724.47	86.38	438.17	212.84	99.44	99.48	510.91
Investment								
Made any investment (y/n)	94.1	90.44	99.01	61.3	99.47	92.97	91.48	88.7
Size of inv. made (Birr/ha)	13067	12,352	12,809	17,229	8,887	7,920	14,680	34,006
o/w roads (%)	6.67	8.02	1.89	28.24	2.95	9.24	23.38	7.91
Land clearing (%)	36.51	20.49	43.86	14.16	42.82	41.3	24.2	28.28
Buildings (%)	18.21	24.93	10.8	14.54	13	30.59	12.44	25.26
Tractors (%)	30.16	40.95	33.82	30.8	33.79	10.54	24	28.93
Has irrigation facility (%)	13.78	19.65	6.88	9.17	5.39	3.43	66.87	30.25
Took any loans last 5 years (%)	19.08	11.36	31.99	10.73	22.19	10.31	26.72	12.83
if yes, amount (Birr/ha)	13783.24	17,260	10,310	54,250	10,973	19,833	15,838	28,169
Employment opportunities								
Permanent farm workers/ha	0.05	0.02	0.03	0.03	0.04	0.03	0.05	0.15
Temporary workers/ha	6.37	6.13	4.25	39	4.32	2.14	7.35	12.43

Findings : Domestic owners dominate

- Total 1.3 mn. ha in large farms; avg. farm size 200 ha
- Only 55% land used
- **97% of farms (90% of area) to Ethiopians**

- Started in 1990s, boom in 2007/8 fizzled out: # of new farms each year now similar to early 2000s
- Only 10% of area transferred by national government

Analysis of benefits (spillovers)

Direct benefits from large farms limited

- Yields highest for 10-20 ha in most crops;
- Though larger farms use more inputs
- Only 36% make lease payments ($20/ha)
- 1 job/20 ha created: Much less than smallholders
- Most investments in private goods (not infrastructure.)

indirect benefits

- modest at best

- See also for Mozambique: **http://documents.worldbank.org/curated/en/158661467991020728/Quantifying-spillover-effects-from-large-farm-establishments-the-case-of-Mozambique**

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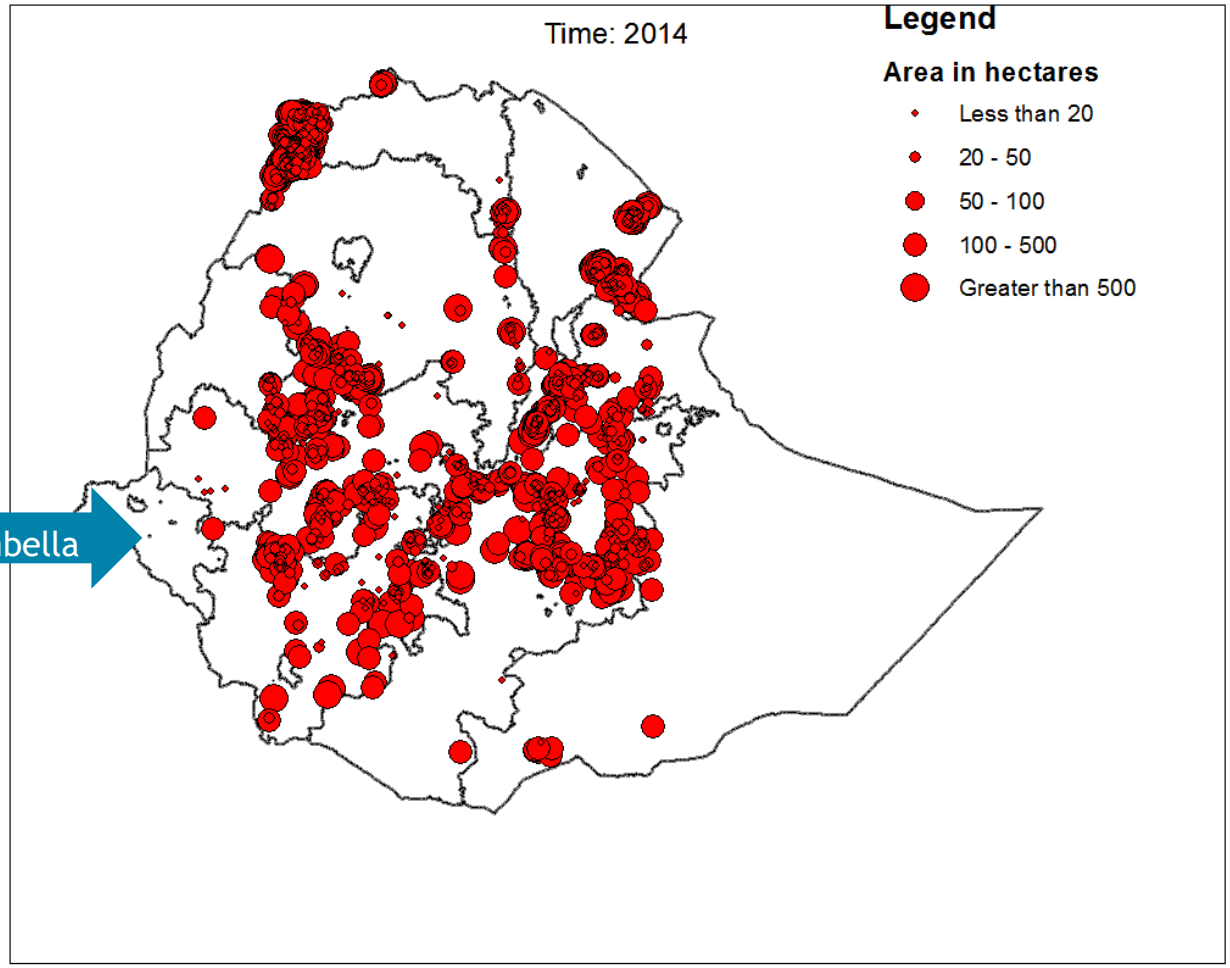
Evolution of Commercial Farms



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Real time land use monitoring: example Gambella

- EU Joint Research Center - pilot testing in Gambella at the request of EU Delegation
- Check against Copernicus programme **Sentinel-1** and -2 imagery
- A first [qualitative] assessment, prepared in Google Earth Engine

See:

Monitoring of Agricultural Land Conversion with Copernicus Sentinel Sensors: Case Study of Gambella State (Ethiopia)
Guido Lemoine, Felix Rembold
European Commission, DG Joint Research Centre, Italy

https://www.conftool.com/landandpoverty2017/index.php?page=browseSessions&form_session=724&presentations=show

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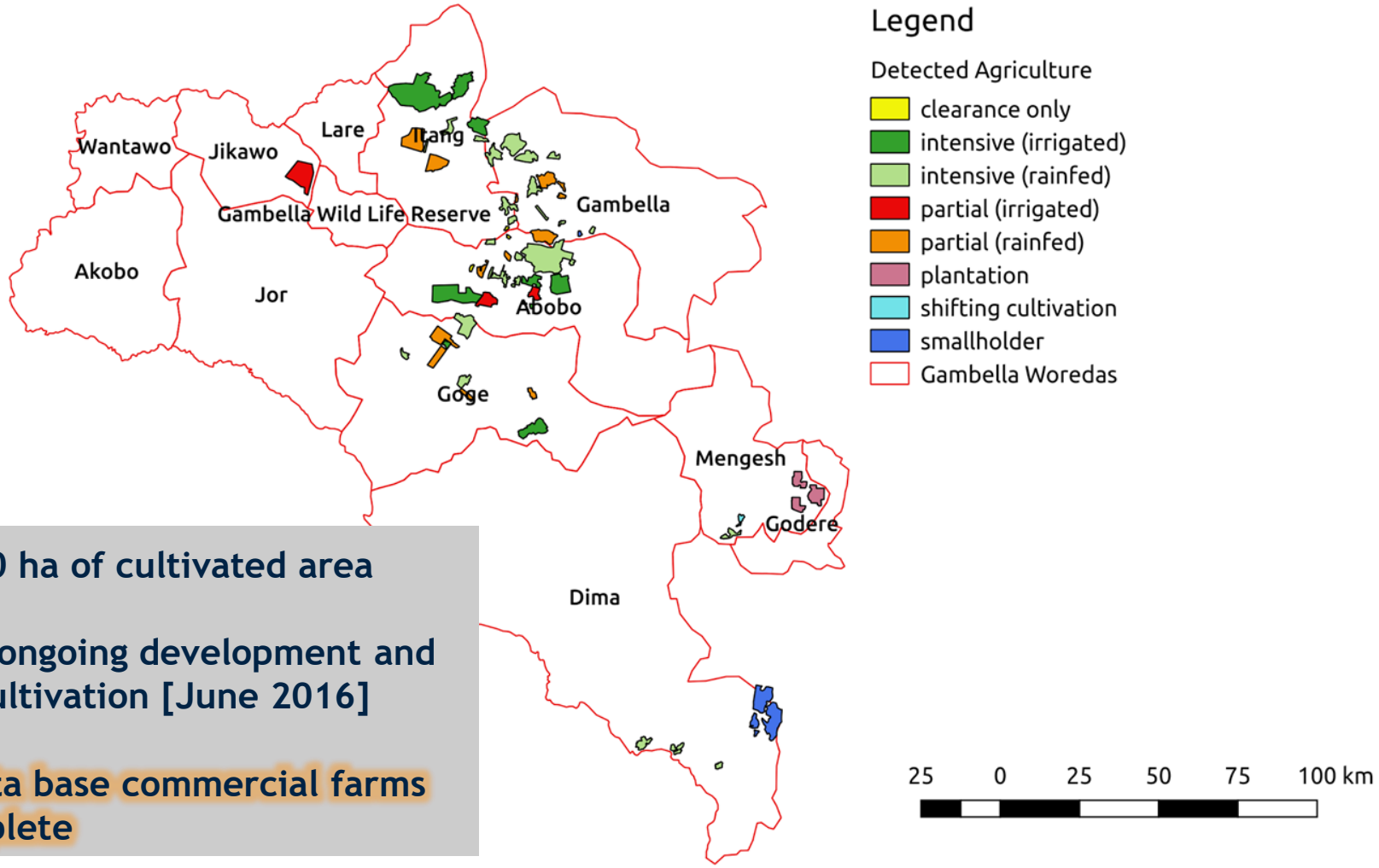

~113,000 ha of cultivated area detected
Includes ongoing development and partial cultivation [June 2016]

Govt. data base commercial farms is incomplete

Malawi

LAND LEASES

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Malawi: observe longer-term impact of domestic investors

Land leased to estates since late 1980s

- Leases gave rise to a dualistic farm structure
- No accurate overview of extent/location of leases
- Significant share of land under leases encroached or unused
- No systematic record of lease fees –foregone revenue may be significant
- Many leases expired; Government proposes for some to be redistributed (idle land)

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New Land Legislation passed by parliament (December 2016)

- Procedure for customary land registration (for the first time)
- But requires clarification of estates status and boundaries first – to prevent overlapping claims
  - Get accurate assessment of ground situation of leases (and state land)
  - Make necessary policy decisions for leasehold management (ground rent, leasehold renewal/reversal)
- Implement systematic adjudication of customary lands afterwards

Policy decisions needed on leaseholds

- Lease rate for renewal by original lesee
  - Current ground rent fee very low Land valuation procedure?
- Dispute resolution mechanisms if overlaps
- How to extinguish leasehold rights if not used (legacy issues)?
  - Expired leases
  - Valid leases, but idle land
  - How to balance of occupancy (“encroachment”) vs. leasehold rights but not used
- what security provided to new investor?
- What are the modalities of transfer to new interest

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Building evidence base for policy decisions

- Assistance to MoLHUD to digitize records (2016); & analyze the data;
  - 2016 completed ; 60,000 records in 3 sites
  - graduated MSc students Luanar with TA for data quality

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Findings

Analysis of digitized records (administrative data)

- Most are domestic investors (few foreign – large estates tea/ surgarcane)
- 20% of area (1.2 mn ha) in 60,000 leases
- 65% are agricultural; lease fee < $1/ha
- 74% with expired & 15% unclear lease term

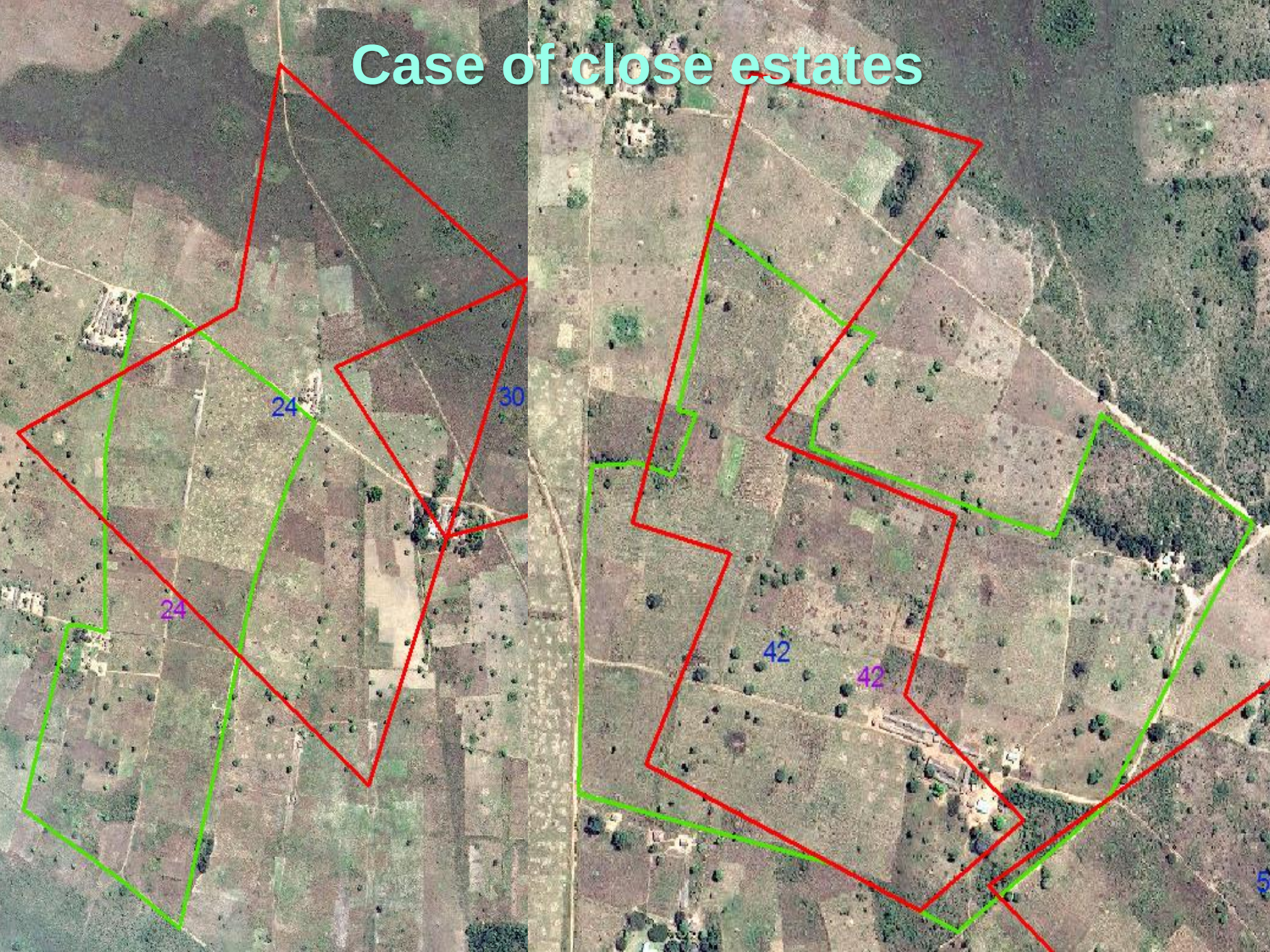
Public land records incomplete or of low quality

- 1/3 of cases: Can't locate recorded parcels
- 45% of estates without a registered deed; no final date on the lease => **insecurity new investors**
- Public revenue (ground rent) negatively affected

- See: **http://pubdocs.worldbank.org/en/703151496254414688/A2-Malawi-estates.pdf**

	Total	Agric. estates			
		All	North	Center	South
General characteristics					
Total area (1,000 ha)	1,487.44	1,348.76	230.63	871.61	246.52
Mean area (ha)	27.10	39.80	39.49	35.12	76.23
Signed before 1988 (%)	18.29	13.82	11.30	13.74	18.91
Signed 1988 to 1995 (%)	56.25	79.31	81.39	81.99	52.67
Signed after 1995 (%)	25.47	6.88	7.31	4.27	28.41
Length of lease (years)	40.71	24.35	24.52	23.41	32.46
Formal documentation					
Has deed (%)	35.80	42.03	43.33	40.07	54.49
Annual rent (US$/ha)	10.69	0.79	0.37	0.53	3.59
Lease expired (%)	45.35	69.65	63.13	74.64	43.98
Lease term <= 10 a (%)	2.42	2.64	1.55	2.43	6.27
Lease term > 10 a (%)	19.82	5.46	4.82	4.04	17.30
No. of obs.	58,733	35,140	6,181	25,560	3,399

Case of close estates

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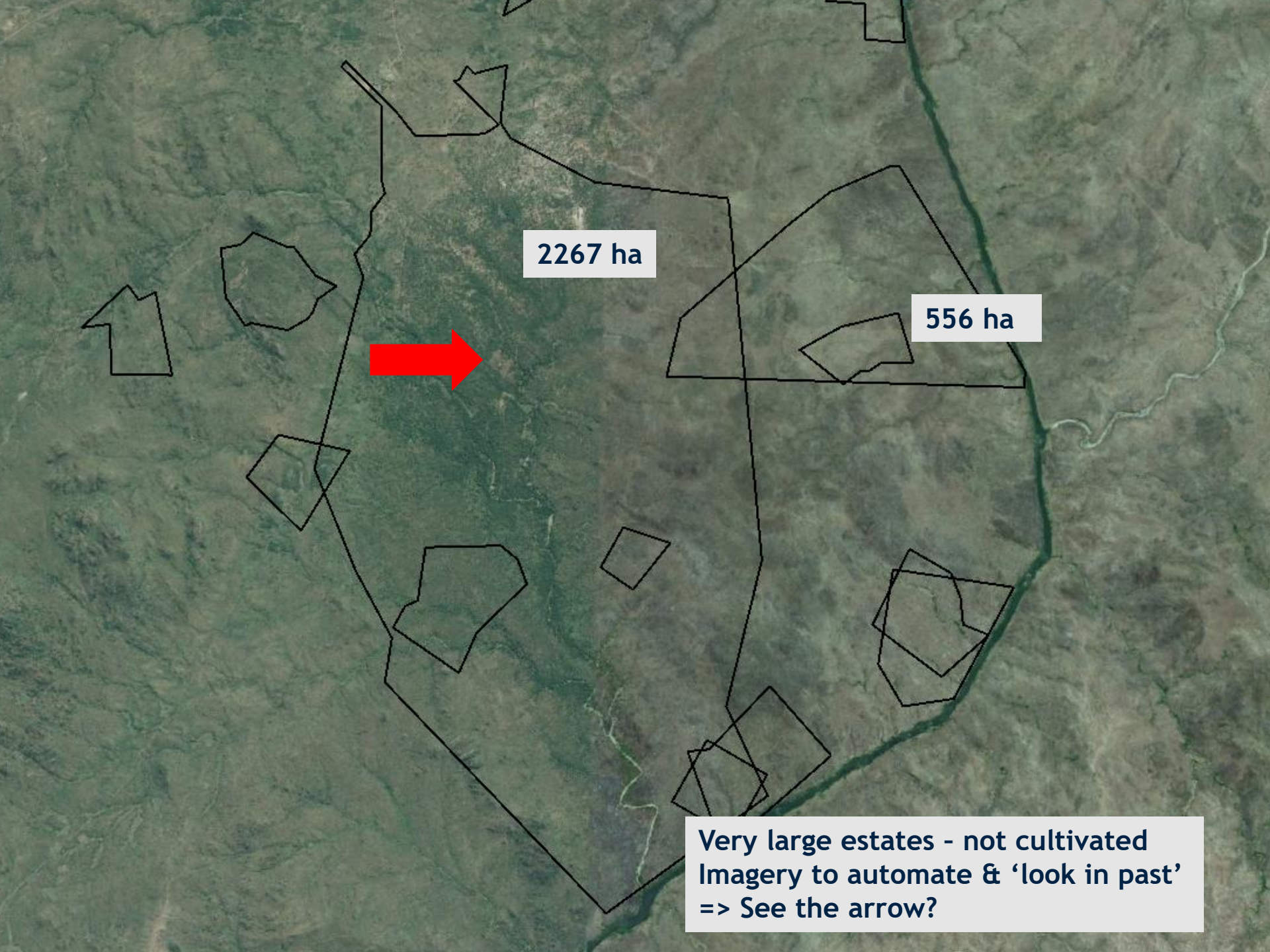
2267 ha
556 ha
Very large estates - not cultivated
Imagery to automate & ‘look in past’
=> See the arrow?


Guardhouse
about 1 ha cultivated

Next step - large farm survey

- Design & implementation with Luanar – in consultation with NSO – comparison with household survey

- Research questions:
  - Who occupies land & how obtained?
  - How many overlapping claims are there?
  - What is the effect on productivity (difference leases and smallholders)
  - Is uncultivated land really unclaimed?
  - Potential benefits from transferring unused land to smallholders or investors
- Administrative data on leases used as point of departure for listing (quality check data => important information Ministry of lands)

Data provided justification and basis for Development policy lending

Ministry of Finance included land in DPO - new engagement

DPO Trigger/Prior Action: *MoLHUD clarifies the status of existing leases and puts in place the regulatory framework and physical infrastructure for cost-effective systematic implementation of the Land Laws, including low-cost boundary demarcation and sustainable land information management.*

Expected results: The baseline in 2014/15 is a situation where most estate leases have expired, boundary demarcation is costly and there is no system in place to systematically demarcate customary estimates to the benefit of all land users, especially women. The target is that by 2017/18, 30,000 expired estates will be notified with at least 10,000 leases either renewed or cancelled, and that a manual for systematic demarcation and low-cost surveying is approved with baseline data collected and pilot implementation started in at least three districts."

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Better data provide basis for policy and justification for financial support

- **Large farm data base has to be complete and include shape files (admin data)**
  - Monitor contract compliance, fee collection etc.
  - Role domestic investors
  - Policy assessments

- **Complemented with routine Large farm surveys**
  - Large farms have become important component; not captured in household surveys or enterprise surveys
  - Assess productivity; direct and indirect benefits;
  - Guidance on how investment best catalyze rural growth without undermining equity
- **Combine with remote sensing**
  - Train data for routine monitoring (contract compliance; idle land; productivity)

Full inventory of all large farms allows for assessment importance domestic investors

- **Administrative data base has to be complete and include shape files**
- **Enables government to monitor sector and compliance with contracts**
- **Collect feed**
- **Policy assessments**
- **Large farm surveys are needed as important sector for agriculture that is not captured sufficiently in household surveys or enterprise surveys**
- **Assess productivity and direct and indirect benefits; including for neighboring smallholders**
  - Which farm sizes are most efficient? How to exploiting synergies btw small & large
  - How can investment best catalyze rural growth?
- **Combine with remotr sensing (data training) for rapid monitoring and compliance**

Large scale land acquisition a high profile issue; but basic questions cannot be answered

- How much land has been transferred? What % of land is actually used/abandoned?
- Is use in line with contracts/investment plans; do large commercial farms benefit local communities?
- Are lease fees collected; do they reflect land values?