Presented By: Kali Ramiah – Business Analyst Julius Chisi – Surveyor General, Malawi

Project Update: Malawi Land Information Management System (LIMS)

Landfolio User Conference - 10 February 2023



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Importance of LIMS?



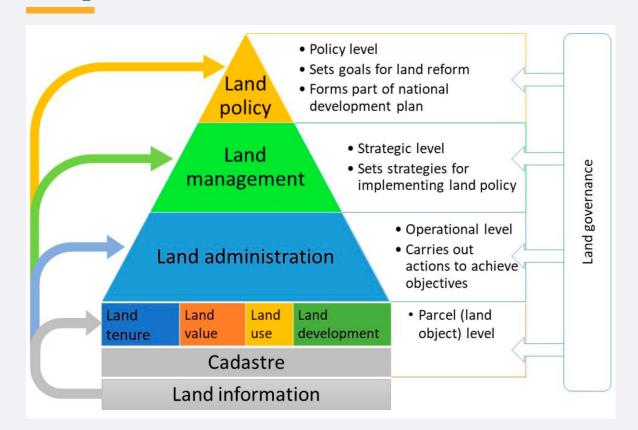
Importance of LIMS

- Land is the most important resource for many developing countries in Africa to achieve the sustainable development goals
- Land access and secure land rights are linked to reduce conflict, economic growth and poverty reduction
- Land issues are complex requires a multi-faceted, flexible approach
- Implementation of Land Information systems brings together institutional arrangements, legal frameworks, standards, and the management and dissemination of systems and technologies





Importance of LIMS





Project Overview



Project Overview

- System implementation for the Malawi Ministry Of Lands:
 - Department of Lands
 - Department of Survey
 - Department of Physical Planning
- Transition from a manual paper-based system, to a fully integrated, automated Land Information
 Management System (LIMS)
- Use of key local experts and consultants as part of the project team
- Full back-office system and e-Gov Portal + leveraging open source software and services
- Hosting of LIMS at the central office (Lilongwe) roll-out and capacity building at regional offices



Project Timeline (20 Months)

- Phase 1 Inception Phase:
- Phase 2 Discovery Phase:
- Phase 3 Design Phase:
- Phase 4 Development Phase:
- Phase 5 Data Capture Phase:
- Phase 6 Train & Test Phase:
- Phase 7 Go-Live Phase:

1 Month



2 Months



3 Months



9 Months



12 Months



3 Months

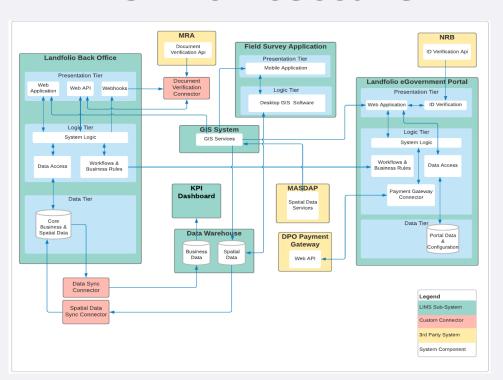
1 Month

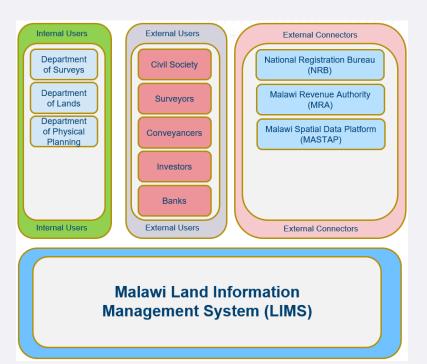


System Design & Workflows



LIMS Architecture







Business Process Methodology

High-level Business processes with legal provision

Ministry Department		Business Process	Category	Legal Provision
Department of Survey		Cadastral Survey on Public and Customary Land	Primary	section 4 (a) Land Survey Act 2016
		Cadastral Survey on Private Land	Primary	section 4 (a) Land Survey Act 2016
		Production of Maps	Secondary	section 4 (f) Land Survey Act 2016
Department of Lands	Regional Office	Plot Application	Primary	section 12 and 21 of the Land Act
	_	Lease Application on Public Land	Primary	Same Sections 12 and 21
		Lease Application on Customary Land	Primary	section 21 of the Land Act
Department of Lands	Land Registry	Land lease	Primary	section 21 of the Land Act 2016 and 38 of the Registered Land Act 1967; Land Act, Section 4
		Land	Primary	section 24 of the Registered Land Act 1967
		Sublease	Primary	section 55 Registered Land Act 1967
		Consent for Sublease	Primary	section 36 of the Land Act 2016
		Transfer of lease	Secondary	section 84 of the Registered Land Act 1967
		Transfer of land	Secondary	section 79 of the Registered Land Act 1967
		Transfer by Transmission	Secondary	section 114 - 118 of the Registered Land Act 1967
		Transfer by power of sale	Primary	section 71 of the Registered Land Act 2016
		Transfer by court order	Secondary	section 11 of the Courts Act 1958
		Surrender of Lease	Secondary	Land Act, section 30
		Rectification of Register	To be assessed	
		Re-entry	Secondary	Land Act, section 25
		lis pendens	secondary	section 11 of the Courts Act 1958; section 27 of the Prevention of Domestic Violence Act 200
		Charge	Secondary	secrion 60 of the Registered land Act 1967
		Further Charge	To be assessed	
		Transfer of Charge	Secondary	section 64 of the Registered Land Act 1967
		Discharge of Charge	To be assessed	
		Caution	Secondary	section 126 of the Registered land Act 1967

Detailed business process mapping

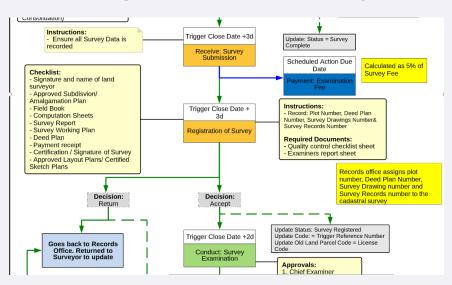
	Α	В	С	E	F		
No. Landfolio Actions				Actions	Description	Responsible Office	
1		2	Application Received	Application Registration	Compile a list of all applications	Lands Assistant	
3			Acquisition of Land	Darlanatan Communi	Detailed mapping and boundary survey of land	Surveyor	
4				Perimeter Survey	Production of a detailed topographic map	General/Region Surveyor Gener	
5		3		Assessment for compensation purposes	assessing loss of any interest in land by current users of land	Valuation Section(Region Commissioner : Lands)	
5				Compensation	compensation for loss of any interest in land by current users of land	District Commissioner	
7				Ressettlement	resettlement is conducted if it isrequired	Regional Commissioner f Lands	
8			Prepare: Layout Plan	Regional Commissioner for Lands requests Regional Commissioner for Physical Planning to	Regional Commissioner for Physical Planning prepares a layout plan based on the perimeter survev.	Regional Commissioner for Lands	



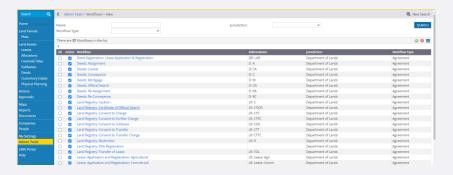
Workflows and Configuration

Business process methodology

Workflow diagram drafted with the Ministry



Workflows configured in Landfolio





Workflows and Workshops







Workflows and Workshops







Data Capture & Conversion



Data Capture and Conversion

- Emphasis on hardcopy records scanning and indexing of paper-based Land records
- Done in collaboration with the Ministry data teams comprised of Ministry staff and consultants
- Guided by the agreed upon data capture and conversion methodology
- Emphasis on data checks and quality control
- Tracking and monitoring of weekly data capture progress
- Data is then scripted and imported, forming a key component of the LIMS database

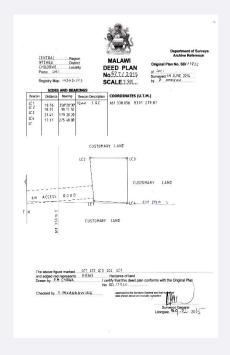


Survey Records

Survey Map drawings done by Cartographers



Deed Plan done by Survey Department





Land Registry

Land records and filing system



Application book details

No.	1		Person from whom right is transferred to	Person(s) to whom right is transferred or transmitted	Amount pair	Description of Property	Preparation fre	Registration	Stamp Signature Duty Registra
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099	16/11/21	CAUTIN E	f Dickson Colleyin the	ASHA PLANT HIKE	-	ASIMAUANE - 10/809	-	KS,8000	K10,000
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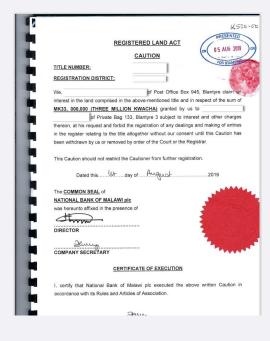


Data Capture

Merged data from indexing

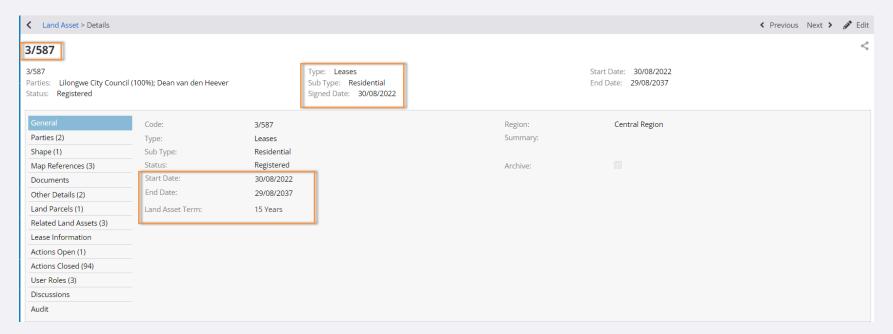
	Α	D	E	F	G	Н	1	J	K	L
1	Scan Code	Code	Date Opened	Registration Section	Piece Number	Area	Area Unit	Registry Map Sheet Number	SD Number	Lessor
	Alimaunde_18_41_The_Minister_of_		29/01/2004	Alimaunde	18/41	0,07500	Hectares	WV:8458R		The Minister of Malawi Government Responsible for Land Matters
	Alimaunde_18_6_The_Minister_of_M		16/02/1976	Alimaunde	18/6	0,42000	Hectares		5984	The Minister of Malawi Government Responsible for Land Matters
4	Alimaunde_18_7_The_Minister_of_M	Alimaunde-18/7	12/10/1979	Alimaunde	18/7	0,08100	Hectares		6132	The Minister of Malawi Government Responsible for Land Matters
5	Alimaunde_18_8_The_Minister_of_M	Alimaunde-18/8	11/07/1983	Alimaunde	18/8	2,45500	Hectares		6826	The Minister of Malawi Government Responsible for Land Matters
6	Alimaunde_18_11_The_Minister_of_	Alimaunde-18/11	31/08/1989	Alimaunde	18/11	0,33530	Hectares			The Minister of Malawi Government Responsible for Land Matters
	Alimaunde_D-18_1_Malawi_Housing		05/09/1975	Alimaunde	D-18/1	134,49400	Acres			Malawi Housing Corporation
8	Alimaunde_18_13_The_Minister_of_	Alimaunde-18/13	22/11/1982	Alimaunde	18/13	1,02100	Hectares		6931	The Minister of Malawi Government Responsible for Land Matters
	Alimaunde_18_35_The_Minister_of_		09/07/2004	Alimaunde	18/35	0,07500	Hectares		10863	The Minister of Malawi Government Responsible for Land Matters
10	Alimaunde_18_36_Malawi_Governm	Alimaunde-18/36	12/07/2013	Alimaunde	18/36	0,07500	Hectares	WV:8458R	10863	Malawi Government
11	Alimaunde_18_A_37_Malawi_Housin	Alimaunde-18/A/37	05/11/2001	Alimaunde	18/A/37	0,01720	Hectares	HC:3093		Malawi Housing Corporation
12	Alimaunde_18_38_Malawi_Governm	Alimaunde-18/38	25/04/2019	Alimaunde	18/38			WV:8458R		Malawi Government
	Alimaunde_18_39_Malawi_Governm		11/10/2018	Alimaunde	18/39	0,07500	Hectares	WV:8458R		Malawi Government
	Alimaunde_18_40_Malawi_Governm		16/10/2012	Alimaunde	18/40	0,75000	Hectares	WV:8458R	10863	Malawi Government
15	Alimaunde_18_43_The_Minister_of	Alimaunde-18/43	05/10/2007	Alimaunde	18/43	0,19500	Hectares	WV:8458R		The Minister of Malawi Government Responsible for Land Matters
	Alimaunde_18_45_The_Minister_of_		05/01/2005		18/45	2,99500		WV:8257 and 8258		The Minister of Malawi Government Responsible for Land Matters
	Alimaunde_18_48_Malawi_Governm		04/08/2009	Alimaunde	18/48	0,01040	Hectares	WV:8458		Malawi Government
	Alimaunde_18_49_Malawi_Governm		08/06/2018	Alimaunde	18/49	0,01040	Hectares	WV:8458		Malawi Government
	Alimaunde_18_55_Malawi_Governm		16/11/2008	Alimaunde	18/55	0,00960	Hectares	WV:8458R		Malawi Government
20	Alimaunde_18_56_Malawi_Governm	Alimaunde-18/56	26/09/2019	Alimaunde	18/56	0,01000	Hectares	WV:8258	12732	Malawi Government
	Alimaunde_18_52_Malawi_Governm		11/09/2013	Alimaunde	18/52	0,01010	Hectares	WV:8458R		Malawi Government
22	Alimaunde 18 A 62 Malawi Govern	Alimaunde-18/A/62	17/11/1998	Alimaunde	18/A/62	0,02990	Hectares	HC:2713		Malawi Government
23	Alimaunde 18 A 63 Malawi Govern	Alimaunde-18/A/63	19/05/1999	Alimaunde	18/A/63	0,02060	Hectares	HC:2406		Malawi Government
24	Alimaunde_18_A_64_Malawi_Housin	Alimaunde-18/A/64	07/03/1996	Alimaunde	18/A/64	0,01960	Hectares	HC:2406		Malawi Housing Corporation
	Alimaunde_18_A_73_Malawi_Housin		29/05/1998	Alimaunde	18/A/73	0,02040	Hectares	HC:2846		Malawi Housing Corporation
	Alimaunde_18_A_83_Malawi_Housin		03/05/1990	Alimaunde	18/A/83	0,03090	Hectares	HC:2257		Malawi Housing Corporation
27	Alimaunde_18_A_89_Malawi_Housin	Alimaunde-18/A/89	06/10/1993		18/A/89	0,01460	Hectares	HC:2406		Malawi Housing Corporation
28	Alimaunde_18_A_118_Malawi_Hous	Alimaunde-18/A/118	19/01/1996		18/A/118		Hectares	HC:2406		Malawi Housing Corporation
29	Alimaunde 18 A 130 Malawi Hous	Alimaunde-18/A/130	21/08/2009	Alimaunde	18/A/130	0,02520	Hectares	HC:3282		Malawi Housing Corporation
30	Alimaunde_18_A_133_Malawi_Hous	Alimaunde-18/A/133	12/02/2008	Alimaunde	18/A/133	0,06420	Hectares	HC:2406		Malawi Housing Corporation

Scanned Lease Document



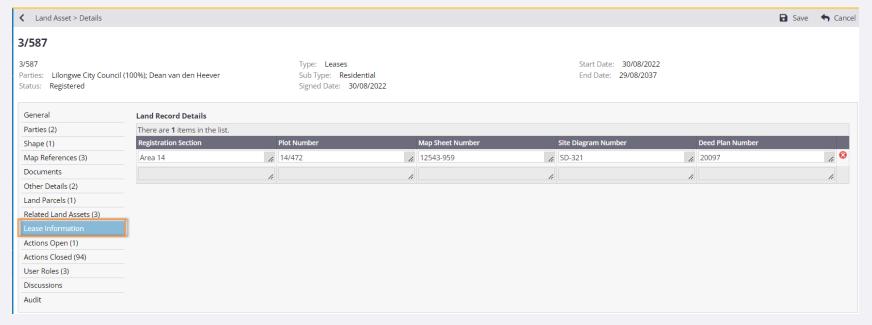


Data Imported





Data Imported

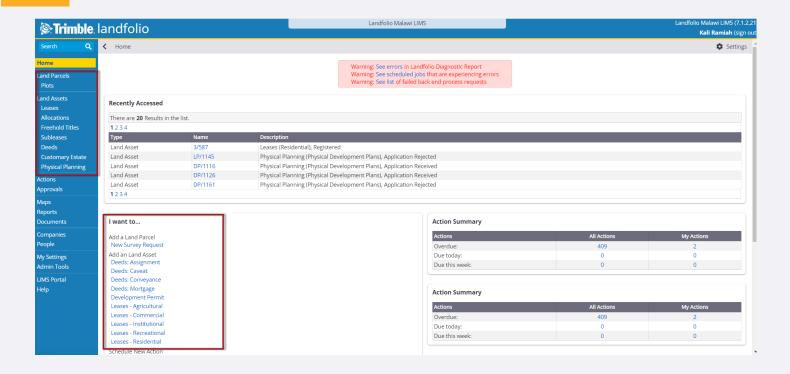




Prototype System

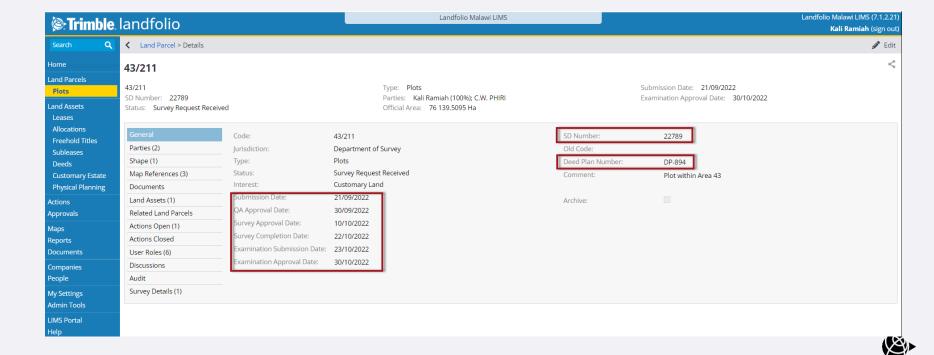


Landfolio Back-Office

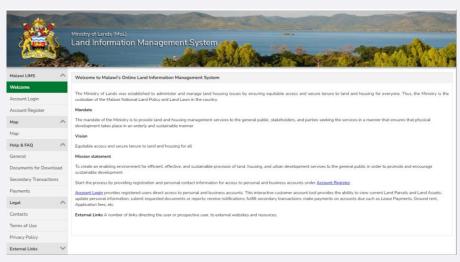


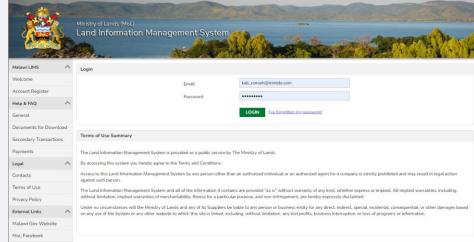


Landfolio Back-Office



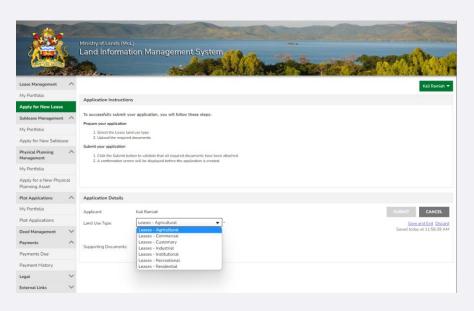
e-Gov Transactional Portal

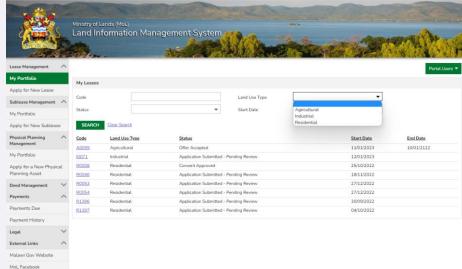






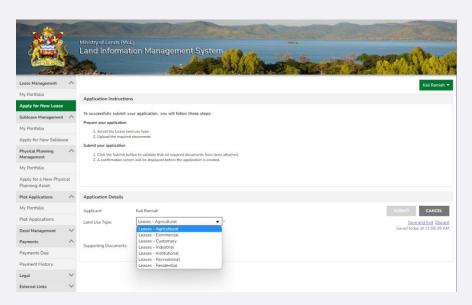
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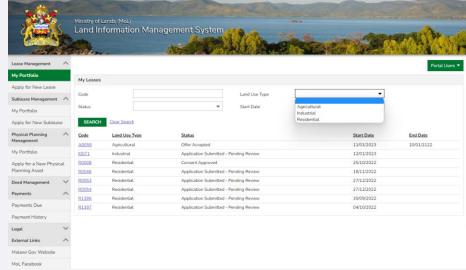






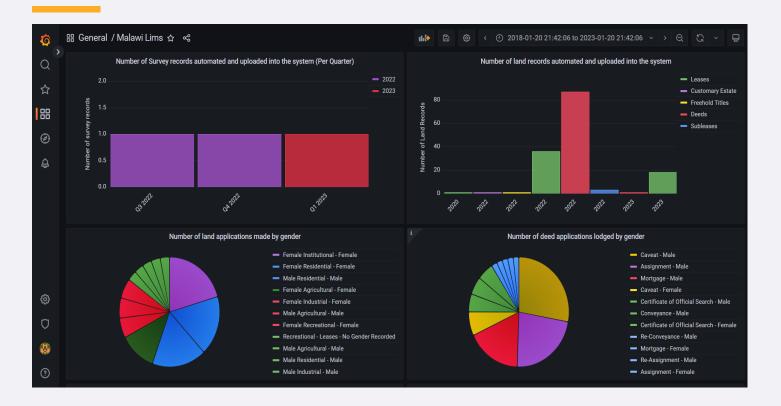
e-Gov Transactional Portal







KPI Dashboard





Looking Ahead



Challenges and Opportunities

- Delay in procurement of hardware Ministry pulled together existing resources for a majority of the project
- Challenges with internet connectivity and Government Wide Area Network (GWAN)
- Rate of data capture and conversion has been slower than anticipated
- Standardisation to ensure that all Ministry of Land offices follow the same processes and procedures
- LIMS guiding existing regulations and amendments
- The Deed Registry is running in parallel with the Land Registry Ministry looking at decentralization



Current Tasks

- Ministry to continue with roll out of hardware within departments and regional offices
- Review and approval of Final Development phase report
- System deployment onto newly procured Ministry servers
- Training of Ministry ICT to maintain and monitor applications on server
- Review and distribution of user training manuals, ICT and system documentation
- System review and User Acceptance Testing (UAT)
- Plan for system Go-live and launch



Looking Ahead

- Successfully implement LIMS and ensure Ministry wide uptake
- Increase and track revenue recognition for the Ministry of Lands
- Existing LIMS users to train future users building capacity and responsibility
- Decentralization the creation of district Land Registries
- Increase data capture to have a solid LIMS database
- Integrate with other systems and Malawi institutions





Thank You

For Questions or Feedback please contact: Kali_ramiah@trimble.com



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