

DELIVERING LAND ADMINISTRATION SERVICE AT SCALE THROUGH MAJOR LAND REFORMS-MALAWI'S EXPERIENCE

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Paper Prepared For Presentation at the 18th Annual World Bank Conference on Land and Poverty, March 20 to 24, 2017

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ABSTRACT

Land is considered as the most basic and important natural resources available for social and economic development in Malawi. However, land distribution is highly skewed. The vast majority of Malawi's agricultural sector is made up of farmers cultivating on small, rain fed plots to grow food for consumption. A relatively small number of large commercial estates on irrigated land grow high-value crops for export. Malawi had a mixed land tenure system namely customary, private (leasehold and freehold) and public. The combined effect of post-colonial agricultural development strategy and the rapid increase in population growth have created pressure on land availability. Malawi Government is undertaking several reforms including those that are related to land. In the land sector, it is implementing legal and policy reforms, administrative reforms and capacity building. Several policies have been developed including National Land Policy. This has led to the development of ten (10) Land related Bills which were passed by Parliament in 2016. This legal framework is aimed at supporting national wide land reform agenda. Training in local Universities has been initiated to prepare for decentralization of functions. Several initiatives have been implemented to pilot the reforms. Other initiatives as presented in this paper are preparatory works for the smooth management of the reforms. One of them is the digitization of land records in preparation for the deployment of Land Information Management System. This initiative will assist in improving revenue collection by reducing human interference in billing ground rent. It will also assist in carrying out performance surveys on agricultural estates as well as identifying idle estates. It is expected that these reforms will bring social and economic benefits through security of tenure, easy covenant monitoring, improved revenue collection, productive land use among other land administration and management activities.

Key Words: Land reform, land reform initiatives, Land Policy and Legal framework, digitization of land records, Land Information System.

1. Introduction

Land is considered as the most basic and important natural resources available for social and economic development in Malawi. However, land distribution is highly skewed. The vast majority of Malawi's agricultural sector is made up of farmers cultivating small, rain fed plots to grow food for consumption. A relatively small number of large commercial estates on irrigated land grow high-value crops for export.

Malawi has had a mixed land tenure system namely customary, private (leasehold and freehold) and public. The combined effect of post-colonial agricultural development strategy and the rapid increase in population growth have created pressure on land availability. Small holder farmers continue to face numerous constraints including landlessness and declining agricultural productivity.

Access to land and tenure security in the country is therefore faced with number of challenges including increased demand for land due to rapid population growth mentioned above, high rate of urbanization, weak institutional capacity for land administration, poor land practices, and limited public awareness of land policies and laws. A major land reform program was formulated and is being implemented against the backdrop of these challenges. It is the aim of this paper to share the major land reform initiatives implemented by Malawi Government in order to deliver land administration at scale.

Government's commitment to improve land management and governance is among others demonstrated by inclusion of land issues in the national development strategy, currently the Malawi Growth and Development Strategy (MGDS II). The MGDS II recognizes land as a primary factor of production and a source of livelihood for most Malawians, land is therefore key contributor to the national economy. In this regard, the MGDS II sets the land sector goal as to improve equitable access to land and tenure security, efficient management and administration system, and ecologically balanced use of land and land-based resources. There is also increased recognition that land sector linkages with other sectors such as agriculture, environment, energy and mining as well as tourism is essential to enhance achievement of desired results.

A comprehensive review of strategies in land sector is necessary to draw lessons and best practice for improving delivery of land services. The government instituted a study in 2012 to assess land governance status in the country using the Land Governance Assessment Framework (LGAF). During the study, land sector was assessed in five thematic areas as follows: legal and institutional framework; land use planning, management and taxation; management of public land; public provision of land information; and dispute resolution and conflict management. The paper presents progress that has been made so far by Malawi Government in initiating and implementing land related reforms under these thematic areas in order to deliver land administration at scale. One specific example of these initiatives is data capture from hard copies of land records which will be discussed in detail.

2. Justification-Why This Presentation

The Malawi Government is undertaking a number of reforms in order to improve service delivery and achieve results in government Ministries, Department and Agencies (MDAs). Malawi initiated the land reform process in middle 1990s with an aim of addressing the challenges the country has been facing in land administration and management in areas of policy and legal framework, valuation, land acquisition, land distribution, land registration, physical planning, surveying and mapping. This process is the one that resulted in the development of the National Land Policy in 2002, review of the existing and development of new land related laws. As part of these reforms, a number of projects and other initiatives have been implemented. Land management and administration practitioners and other stakeholders in the land sector need to be well informed and keep track of the country's land reform initiatives to assist in policy decisions and future programming.

Since the inception of land reform agenda, no comprehensive review of related projects and programmes has been conducted to guide policies on land matters. This paper therefore reviews major development initiatives Malawi has implemented as part of its land reform agenda to draw lessons for future land reform programs. The review is conducted at the point when Malawi is reviewing its national development strategy. Therefore, this paper will assist to inform strategies for the successor national development strategy.

This paper is based on a desk review. Various documents were reviewed including progress reports, program and project documents, policies and study reports on land matters. In presenting the results of the analysis, the subsequent sections will present the projects the Ministry has implemented or is implementing. Emphasis will be on projects which are currently under implementation particularly the project to capture data from hard copy land records to digital. Development initiatives which are in the pipeline will also be discussed as well as the challenges being encountered.

3.0 Major findings of the desk study on strategies to improve delivery of land services

3.1 Policy and Legal Framework to Deliver Land Administration and Management at Scale

The country has a National Land policy which was formulated through a consultative process and was adopted in 2002. Other land related policies are being drafted namely; National Land Use Planning Policy, National Urban Policy and National Resettlement Policy. The goal of the National Land Policy in Malawi is to ensure tenure security and equitable access to land, to facilitate the attainment of social harmony and broad based social and economic development through optimum and ecologically balanced use of land and land based resources. The National Land Policy recommends various reforms that need to be undertaken in the land sector. To translate the National Land Policy recommendations into actions, the Malawi Land Reform Program Implementation Strategy (MLRPIS) was developed. The MLRPIS outlined the specific interventions to be implemented in the land sector to address the policy issues in order to achieve specific results within timeframes between 2003 and 2007.

The MLRPIS was not fully implemented due to lack of supporting legislation for the provisions of the National Land Policy and inadequate funds. However, some activities that did not require new legal framework were implemented such as the introduction of land related courses in Universities and Colleges within the country and land redistribution where 15,142 households were resettled from land pressure zones in Malawi. Meanwhile, the process to review and develop the eleven pieces of land related legislations started in 2003 and was envisaged to take a shorter time but was completed in 2010. As a result, the process was caught up with other emerging issues in the land sector which necessitated a review of the bills that were drafted. This resulted into further delays to have the supporting legislation for the land policy. In accordance with the current major land reform agenda for the government, the process to enact land related bills has been fast tracked and the process to develop additional land related laws and policies has been initiated.

It is worth noting that the current land administration and management functions are principally centralized at MoLHUD despite the National Land Policy recommending a decentralization of these functions to local authorities. The key contribution factor to this scenario is that the legal framework was inadequate to support decentralization process hence a need for a reform. That is why the process to enact a package of land related bills was being fast-tracked to allow decentralization of the functions. It is pleasing to note that in 2016 the following Bills were passed by Parliament: Land Bill 2016, Physical Planning Bill 2016, Land Survey Bill 2016, Customary Land Bill 2016, Registered Land (Amendment) Bill 2016, Land Acquisitions (Amendment) Bill 2016, Malawi Housing Corporation (Amendment) Bill 2016, Local Government (Amendment) Bill 2016, Mines and Mineral (Amendment) Bill 2016, Forestry (Amendment) Bill 2016, Public Roads (Amendment) Bill 2016. The government has initiated the process of developing National Resettlement Bill to assist in addressing resettlement matters. The Government has therefore set the tone to implement major land reforms in order to deliver land administration services at scale by introducing a new set of legal framework to respond to current demands on land.

3.2 Approaches deployed to Deliver Land Administration and Management at Scale

In order to improve service delivery in the land scale, Government has implemented several initiatives as follows:

3.2.1 Capacity Building in Readiness for Decentralization

3.2.1.1 Training in Local Universities

One of the goals of Malawi National Land Policy is to promote a decentralized and transparent land administration system. As earlier stated, some preparatory works had started to ease the process of decentralization of land administration functions. Training programs at diploma level were introduced at Natural Resources College, a constituent college of Lilongwe University of Agriculture and Natural Resources (LUANAR). A similar program at degree level was developed at Mzuzu University and the Malawi Polytechnic, a constituent college of the University of Malawi. All the three universities are producing a pool of professionals in land administration and management which will assist Government in implementing the land reform at all levels so that land services are delivered at scale. Initially the Ministry received support from European Union and DANIDA for training land

administration experts locally in these local Universities thereby reducing costs compared to training abroad. Meanwhile, other students are being funded from Government resources at a small scale. Currently, the World Bank is financing land administration capacity building component under the Agriculture Sector Wide Approach Support Program (ASWAP-SP). Through the World Bank Project, a number of staff members have also been trained and essential equipment has been bought to support implementation of land administration and management with respect to agriculture sector wide. Those that have successfully graduated are being recruited based on the functional review that was undertaken few year ago.

3.2.1.2 Procurement of Equipment under ASWAP-SP

The Ministry has procured additional equipment for use in three departments of Lands, Physical Planning and Surveys. These ranged from computers, Global Positioning System (GPS), Plotters, and Scanners among others. The equipment is still not enough because of more demand on land services that the Ministry is currently facing. Government is doing its best to procure more equipment and is embracing support from its development partners.

3.2.3 Formulation Assignment for the Development of a Comprehensive Land Profile for Malawi

Achieving agricultural activities necessitates availability of various resources among which land resources constitute a key component. In Malawi, where agriculture is the backbone of economy, access to suitable land for promotion of various agricultural activities is considered as being of the highest importance to ensure economic growth and create wealth for the population. In the framework of agriculture development, the Government of Malawi, with support from its development partners, has developed two key policy tools aimed at providing the overall guidance and enabling environment for promoting agriculture development and thus boost its economic growth. These main specific policy tools are the ASWAp (Agriculture Sector Wide Approach) and the NES (National Export Strategy). These policy tools had identified a series of food security crops and crops with export potential to be promoted for production both by smallholder farmers and commercial farmers.

However, for these tools to significantly produce the expected economic benefits it will be important for the government to undertake land profiling in order to have data on land availability, land suitability and land accessibility. The EU has supported the GoM to achieve the first steps towards land profiling. In this context, a first consultancy mission by CARDNO was carried out to achieve a preliminary evaluation of the land resources information. More specifically, the study, whose final report was produced in August 2014, consisted of carrying out an inventory of all relevant geographic information relative to land resources in Malawi.

The study has allowed identifying and localizing a diversity of various sources of information on land resources based on both past and on-going projects. The consultancy revealed that among the various sources of information available, the most informative on land suitability and availability is based on the LREP (Land Resources Evaluation Project) undertaken in 1991 by UNDP, FAO and the Ministry of Agriculture which had covered all the eight (8) Agriculture Development Divisions (ADDs) and there are reports and maps to that effect. This project resulted in the production of information on soil maps, agro-climate maps, land suitability for rainfed agriculture under traditional management, land suitability for rainfed agriculture under improved traditional management, land suitability for wetland rice under

traditional management and land suitability for forestry. The data is highly informative and useful for the process of generating information on land availability and suitability in Malawi. For the production of land profiling information, there is need to produce basic maps covering the whole country which can serve as the basis for land profiling of Malawi land resources. However, it has to be noticed that various other on-going projects are likely to provide updated information, especially on coverage information as well as on crop suitability using modern methods.

In the frame of rapidly providing an interim dataset to work with in terms of base maps, it has been proposed by Ministry of Agriculture, Irrigation and Water Development to compile the information produced by the LREP study and proceed with its digitization. This exercise, based on the various information and tools availed by the LREP study, would help to create a soft copy of information on land suitability considering the various crops promoted through the NES and ASWAp. The digitization process is expected to consolidate the basic information on land suitability from analogue to digital based on the information generated by the LREP in 1991. The existing information will thus evolve from paper-based products into digital data resource that can be easily exploited to inform decisions makers, producers and investors and farmers about priority crops which can be grown with maximum productivity and profitability on the available land. In addition to the LREP data, the proposed digitization exercise should consider to associate to these base maps any other existing information which should provide any additional updated features.

In terms of land availability, there is a need to have updated base maps which are to be prepared by the Department of Surveys within the Ministry of Lands, Housing and Urban Development. It is expected that the 'Land Information Management System (LIMS) will be able to have an updated information on land availability once the system is fully operational. Meanwhile, there is need to support the Department of Surveys in the Ministry with resources to have the base maps updated and then all these layers, including those on land suitability will be in the system. This will help all stakeholders in terms of retrieval of land related data. In this regard, the improved estate land governance project is a quick win into LIMS because it will deal with estate information that will be imported into LIMS once the latter is fully operational. Otherwise LIMS is a project involving several Ministries, Departments and Agencies (MDAs) who have information related to land use, ownership and management.

Currently, digitization of the LREP generated data is underway in the Department of Land Resources in Ministry of Agriculture, Irrigation and Water Development as way of availing digital data on land suitability. Moreover, considering that the situation has evolved since the LREP period (1991), it is important to keep in mind that this preliminary digitization would just produce a first layer of useful information which will need to be progressively complemented by the updated information to be produced by the on-going projects conducted by the different actors operating in Malawi in the area of land characterization.

3.2.4 Community Based Rural Land Development Project

Government piloted a project on voluntary and market-assisted acquisition of land parcels by the land-less and land-poor households. The willing seller - willing buyer approach as outlined in the National Land Policy was tested during the implementation of a Community Based Rural Land Development Project from 2004 to 2011 with support from the World

Bank. The approach is realistic as it enabled 15,142 households to acquire 33,428 hectares with each household receiving approximately 2.2 hectares on which to farm and reside. There are plans to scale-up the project from six initial pilot districts to all the districts in Malawi.

The scale up is justified because in Malawi, a long-term policy bias in favour of large farms has helped to marginalize smallholders. Most farmers operate less than one hectare of land. At the same time, many large estates are idle. In the early 2000s, studies found that there were 2.6 million hectares of underused cultivable land that could be targeted for redistribution to smallholders. With support from the World Bank, the Government of Malawi launched this pilot operation based on voluntary land transfers between landowners willing to sell and persons with little or no land willing to buy. This was the first redistributive land reform project to be implemented in the World Bank's Africa Region and it was the first in the world to use Bank funds for land acquisition, based on a formal exception to the decades-old policy that precluded disbursement against land purchase. The original objective of the Community-Based Rural Land Development Project was to increase the incomes of 15,000 poor rural families through the implementation of a decentralized, voluntary community-based land reform pilot program. When additional financing for the pilot was approved in 2009, the wording of the project development objective was altered slightly, making it clear that the operation was also intended to increase agricultural productivity.

The project aimed at raising the incomes of poor farmers, first, by giving groups of small farmers grants to buy land and, second, by providing the training and the inputs needed for farmers to develop viable farms. To this end, the resettlement grant that was provided financed not only the purchase of land but also essential farm inputs, as well as giving beneficiaries the cash needed to cover the cost of moving to a new location and building rudimentary shelter. Although the Ministry of Lands, Housing and Urban Development was the lead implementing agency, the Malawi Social Action Fund which had been running for 8 years when the pilot was approved. It was charged with disbursing project funds for farm purchase and farm development, and for financing (outside the project) the community infrastructure where beneficiaries settled. There was a practical logic to this implementation arrangement; including communal infrastructure as a project component would have made this operation too expensive for a pilot, and it made sense to work through an established program. But the arrangement presupposed a synchronization of social fund investment priorities, set by local government, and the needs of the resettled land reform beneficiaries. The pilot exceeded both its original and its revised development objective: using a panel design, the findings of two separately-authored impact evaluations agreed that the increase in the incomes, farm output, and agricultural productivity of beneficiaries largely exceeded the comparable results achieved by matched control groups.

There are seven lessons from this pilot operation worthy sharing: The willing buyer, willing seller approach to land redistribution can be made to work—but the institutional framework needed for success is demanding; The finer design details of the willing buyer, willing seller model of land reform are critical to its success; Land redistribution is but one component of a successful major land reform program; Land redistribution can raise the incomes of poor households by increasing the amount of land farmed, and it may generate a one-off boost in productivity by bringing idle land into use; further increases in agricultural productivity may be harder to realize; Giving the rural poor the option of homesteading remains a valid

objective; and the scope for contract farming to help land reform beneficiaries make the leap from subsistence cultivation to cash cropping merits closer investigation. The success of land redistribution projects will be enhanced by timely studies on land availability; The improved estate land governance project that will be discussed in detail below is one of those projects that has been initiated by MoLHUD to specifically give up-to-date information on estate land availability.

3.2.5 Development of Globe Titles and Deeds Registration System (GTDRS)

Within the framework of the Business Environment Strengthening Technical Assistance Programme (BESTAP) to Malawi, the World Bank financed the development of a Titles and Deeds Registration System, aiming at improving efficiency and effectiveness in property registration and related transactions. The system was developed by local IT Company known as Globe Computer System. The system was deployed at the MoLHUD headquarters, the Deeds and Titles Registries and the three (3) Regional Offices of Department of Lands, and is partly operational since 2013. The system is relatively complete and seemed to satisfy the initial needs. It has client-server architecture with distributed databases and synchronization protocols making use of a dedicated network. One of the main shortfalls of the system however is the lack of a geographic component. Although the coordinates of the deed plans 'are captured in the database, processing of topology is not implemented which makes the geographic part of the data unverified and unusable for further exploitation. The MoLHUD drew lessons from this small system and would like to develop a more detailed system with wider coverage that will include data captured and used by Departments of Lands, Physical Planning and Surveys among others. The Ministry has engaged a Business Systems Development expert and Software development expert with support from the World Bank to come up with a holistic, interoperable system that would increase coverage and improve delivery of land administration services.

3.2.6 Development of Land Information Management Systems (LIMS)

As indicated earlier on, the Government of Malawi is in the process of computerizing and modernizing its land information systems in an integrated manner to improve on delivery of land administration services. With the advent of modern survey equipment, GIS and other land data management software, time taken to process land data and carry out field surveys has been significantly reduced. The country is moving towards a modern mapping system by converting its system from Clark1880 co-ordinate system to World Geodetic System (WGS84).

Currently, the Department of Surveys in the MoLHUD is championing its early stages by updating the base maps using Government funding. The Department is working on these base maps for Lilongwe City and Mchinji Districts. LIMS will have information not only on land ownership records but also on land suitability for each crop. It is also expected that it will have data on metrology, forests, climate, and environment for specific areas among others. The ultimate goal is to have improved service delivery to the general public whereby more people will be able to access and benefit from the modernized and efficient land administration system.

3.2.7 Estates Land Use Assessment Project

The “Estates Land Use Assessment” project, popularly known as the “Idle Estates” project, was a pilot project carried out by the Ministry of Lands, Housing and Urban Development (MoLHUD) in 2013-2014, and financed by ASWAp-SP. It was part of the “Multi-use Satellite Imagery for Agriculture and Land Management Applications in Malawi” project, supported by Malawi’s Ministry of Agriculture, Irrigation and Water Development (MoAIWD). The main objective of this pilot project was to determine the current and historical use of land within estates, in particular the degree of farming. Because of its high density of estates, the district of Kasungu was selected as a pilot site.

The first phase of the project (2013) focused on the use of satellite imagery to determine land use. It was concluded that a satisfactory level of accuracy of land use mapping can be obtained, without particular problems related to image availability. The second phase (2014) focused on the process of digitizing Estate boundaries and title information. Approximately 4,000 estates were digitized with dedicated software developed for this purpose. Organizational and logistical aspects were examined. In addition, an extensive operation of verifications in the field was carried out to assess the up-to-dateness of the lease contracts.

This phase clearly showed the urge to move to digital storage of the lease documents and maps to ensure the continued existence of the information. Moreover, it was observed that approximately 90% of the leases in Kasungu district have expired. The need for a reform of estate land administration for maximum production and efficient use is therefore inevitable. The capturing and digitization of all land records of agricultural estates is a step towards full-fledged land Information Management System (LIMS). It is expected that it will reduce the whole workload for the implementation of LIMS. The estate data base will be exported into LIMS once the latter is operational.

4.0 Improving Estate Land Governance in Malawi - Towards a National Land Information Management System Project

Malawi Government through MoLHUD is currently implementing this project since 2016 with support from the World Bank under ASWAP-SP. The scope of work is to capture all data from hard copies of land records known as piece files into computerized data and make it easily accessible and interoperable for the benefit of the nation. It is expected that the first phase will be completed by November, 2017 particularly data capture and development of some modules of LIMS. Other modules in LIMS will be developed on incremental basis once initial data capture is completed.

4.1 OBJECTIVES of the Project

The broad aims of the project are as follows:

- i. Ensure equitable access and secure tenure to land, efficient management and administration system, and ecologically balanced use of land and land-based resources.
- ii. Create an enabling environment for efficient, effective and sustainable provision of land and housing management services to the general public in order to promote and encourage sustainable economic growth and development.
- iii. Develop land information system which is comprehensive and integrates various systems/database (interoperability data standards)

The specific objectives of the project are as follows:

- i. To upscale the data entry exercise and computerize all agriculture land titles and deeds in Malawi within a time span of 24 months.
- ii. To perform field verifications
- iii. To develop a comprehensive, interoperable and sustainable Land Information Management System(LIMS)
- iv. Design and implement estate survey on performance of estates.
- v. Reviving rent roll system. Also to explore a linkage of SMS service for clients to follow progress in processing applications and paying ground rent.

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4.2 Land Titles and Deeds

In terms of digitization of Land Titles and Deeds, there were few documents related to land property, such as lease contracts, land titles and deeds that were computerized as discussed earlier under GTDRS. Most of the land records were paper based and storage conditions of both hard copy files and maps are poor. The information was therefore: (i) not sustainable where paper has no eternal life, (ii) vulnerable to loss in case of fire or disaster, (iii) difficult to access it leading to inefficiency in administrative procedures and (iv) sometimes duplicated or lost because of insufficient organization of the archives.

4.3 Monitoring and enforcement of land lease agreements

The aim of MoLHUD is to ensure effective monitoring and enforcement of covenants stipulated in leases that are issued to provide security of land tenure. Currently rents are paid for only very little lease contracts even though its one of the covenants to be complied with. Moreover, many lease contracts have expired and the current situation is hard to monitor who has complied with lease covenants or not.. There are several challenges associated with manual issuance of ground rent notices. This problem was dealt with before. The Ministry had not only operational but also effective land rent roll system until 1996 when it crushed. Unfortunately the back-up mechanism did not help to revive the system. However, the benefits of this system were enormous including timely generation of accurate invoices, less human errors and interference, easy billing system, easy monitoring of covenants and improved revenue collection. The need to revive the system is still there and it is expected that its operations can be embraced easily with the current public sector reforms, land sector in particular.

4.4 Locating available land

As part of implementation of the National Export Strategy, G8 new Alliance on nutrition and food security and Malawi's Growth and Development Strategy, the government intended to engage in large scale commercial agriculture. As such, the government is looking for about 3000 hectares per annum to grow a variety of commercial crops. The government therefore aims at having statistics on availability of idle land and thereafter enforce the covenants on those estate owners that have failed to meet the terms and conditions in the lease agreements, including the failure to pay ground rents accordingly. This will release valuable but underutilised land for new commercial agricultural investment to make productive use of the land. Underutilised land will be assessed using automated analysis of land use maps derived from satellite imagery, made available by the MoAIWD.

4.5 Performance of the Estates

Currently very little information is available on estates, in particular on aspects such as agricultural land use, tenure history, productivity, profitability, and sociological aspects. In order to have a better understanding on these issues, an extensive estate survey in the field has been initiated by MoLHUD. It is expected that the estate land survey will complement both the Enterprise Survey and the Integrated Household Survey, and will provide essential policy guidance for the government of Malawi to develop a targeted approach in addressing idle land, encroachment, land distribution and support to the functioning estates and to the commercial agricultural sector.

5 DESCRIPTION OF WORK

5.1 Project Management and Dissemination

The success of this project highly relies on the ability of the MoLHUD to mobilize staff in its regional offices in the Central, Southern and Northern part of the Country. The Ministry of Lands, Housing and Urban Development provides the leadership through Project Management Team. The project is under the direct supervision of a steering committee comprising of representatives of both MoLHUD and the World Bank. The committee discusses and validates planning, tasks and technical propositions presented by the consultant during the course of the project. Moreover, the IT section in MoLHUD is strongly involved as the IT component of this project is very significant.

5.2 Project Components:

5.2.1 Creation of a Nationwide Geographical Estates Database - Up scaling of the Data Entry operation.

As stated earlier, this component is a direct follow-up of the Estates Land Use Assessment pilot project while taking advantage of the existing GTDRS software and infrastructure and to build a Nationwide Geographical Estates Database. It was subdivided in 3 work packages as follows: (i) Up scaling of the Data Entry operations ;(ii)Upgrade of GTDRS. This work page has been removed during project implementation; and (iii) Field verifications. The major expected result of this component is a nationwide geographical database of agricultural estates.

5.3.1.1 Objectives

The main objective of this work was to computerize all agriculture land titles and deeds in Malawi within a time span of 24 months. The work consisted of continuing the data entry operation at the Central Regional Office of Lands, and setting-up the same operation in the North and South Central Regional Office of Lands (Mzuzu and Blantyre).

5.3.1.2 Methodology

The captured land title records, or lease contracts, located at the Regional Offices of Lands, are either Deeds with a Deed plan or accepted offers with a Sketch Plan. Data from estates files are captured exhaustively. This activity will also assist the Ministry in identifying with ease, all the estates located in attractive areas for investors in terms of land suitability and available infrastructure among others. Since these records have to be taken out of the archive and brought up for digitizing, the exercise has also been used as an opportunity to clean up and re-organize the archive.

Custom GIS software was developed during the pilot project to facilitate the digitizing process (Deeds Data Entry Tool - DDET). During the first 12 months of the operation, the DDET software was exploited. It is being enhanced to improve data management and tools to address field verifications. Once LIMS is developed and ready to host the Data Entry operation (WP1.2), the DDET software will be abandoned and the operation will be transferred to LIMS accordingly.

5.3.1.3 Subcontracting

A private firm was subcontracted to carry out the data entry operation. The firm, Lilongwe University of Agriculture and Natural Resources provided human resources and equipment (computers) to carry out the work in the Regional Offices of the MoLUHD. The firm also provided supervisors in charge of operation management and quality control. LUANAR, the sub-contractor operated DDET software during the first 12 months only.

5.4 Field Verifications

Field verification is not yet undertaken and it will be carried out after data entry on a non-exhaustive basis. The land records are to be subjected to field verification for several reasons including incoherence in the entered information, e.g. overlapping estates on paper (encroachment), inconsistencies like area shown on the sketch plan which differs from declared area on the ground, reported disputes but not yet resolved, to confirm estate land identified as underutilized and to inspect the estates whose leases have expired.

The MoLHUD will be fully in charge of the field verification exercise in terms of planning, estate selection, organisation, logistics, human resources and data processing of the collected data. Besides the verification itself, special attention will be paid to awareness and sensitisation towards local Traditional Authorities so that communities should understand that MoLHUD is simply updating its records and there is nothing malicious. The consultant will assist in proposing a pre-selection of estates for verification using historical satellite imagery, with land use being checked since 2005. The field verification will be done by MoLHUD. Criteria used for pre-selection are estates that are at least 30 ha; at least 50% idle land in the period of study up to 2014, and no cultivation detected on available satellite imagery between 2005 and 2014. MoLHUD can decide to increase minimum area and minimum percentage of idle land for the actual verification based on other factors like proximity of the estate to urban centres. MoLHUD will therefore advise the consultant on some estates of interest that are less than 30 hectares.

5.5 Performance Survey on Agricultural estates

This component is a research work using a sample size approved by stakeholders to conduct a survey on agricultural estates where the research should investigate tenure history, productivity, profitability, sociological aspects among others. The National Statistical Office (NSO) was involved from the onset to Design and implement estate survey on performance of estates in this component of the project. The Ministry is doing this in consultation with Ministry of Agriculture, Irrigation and Water Development. The estate survey was subject to

the World Bank's approval in terms of the design scope. In this regard, the World Bank plays advisory role to ensure that the integrity of the data is acceptable. The work packages include the following: Survey Design, Definition of sample frame, Development and test of questionnaire (land title, leaseholder, crops, input use, labour, yields, markets), Survey Execution, Data Analysis among others. As stated earlier, this work package is entirely subcontracted to a Lilongwe University of Agriculture and Natural Resources (LUANAR) one of the public Universities in Malawi. The Ministry of Lands, Housing and Urban Development is in charge of the survey design and coordination.

5.6 Reviving Land Rent Roll System

The aim of this component is to include land rent roll system development, testing, launching its use, back up mechanism and monitoring. A consultant was hired to design the system, draft system specifications and draft Terms of Reference for the development phase for which an IT firm was contracted. The system developer is to ensure that the land rent roll system developed shall have adaptive ability to the functional LIMS once the latter is fully functional. The work includes: System Design and Specifications, System Development and System Roll-out. In this regard, System Design and Specifications and System Development has been subcontracted to independent consultants with relevant experience and qualifications while system roll-out is under the Ministry of Lands, Housing and Urban Development

6.0 PROGRESS MADE SO FAR

6.1 Data Capture

Data from all files having land records from Regional offices have been captured. At least 43,000 files have been dealt. However, some more work is yet to be completed including:

- i. Digitization of titles in the land registries and deeds in the deeds registries. Under titles registration, the following are yet to be digitized: leases, transfers, charges, cautions, letters of administration, inhibition orders (court orders) and tenant agreements. These are the documents found in the piece files at the Deeds and Land Registries.
- ii. Also not yet digitized are the deeds under deeds registration system where the document is assigned a deed number which is recorded in the deed register before registering the actual document. This means that any registered document and the deeds registers have to be digitized. These include leases, conveyances, mortgages, letters of administrations, wills, debentures, sub-leases, assignments, caveats (court orders), deed plans and sketch plans (specifically original deed and sketch plans), tenant agreements and trust documents. Since the issue of root of title is crucial under deeds registration system, all the registered documents will have to be digitized;
- iii. Pre-identification of idle estate land using historical satellite imagery to ensure land identified as uncultivated is not just fallow for one production period.
- iv. Designing and development of data management system for verification of data collected by MoLHUD teams to enable monitoring progress, seamless coordination with LIMS data and for policy analysis. It is expected that the system will enable the following functions to be performed:
 - a. Identification of possibly underutilized land by computing land use indicators for each estate, based on agricultural land use maps derived from satellite imagery.

- b. Identification of suitable land for the cultivation of priority crops by computing land suitability indicators for each estate based on land profile maps.
- c. Support to field verification operations, such as management tools, creation of field verification documents, and documents related to logistics.
- d. Support to daily procedures in the Regional Offices of Lands.
- e. Support to Land dispute resolution by interactive and geographic interrogation of the database.
- f. Support to Physical Planning by interactive and geographic interrogation of the database.
- v. In order to build capacity within MoLHUD for case by case verification, the consultant is expected to also develop a protocol and organize a training to build capacity in MoLHUD to undertake historic analysis in future (on a case by case basis).
- vi. Continue with building capacity in MoLHUD by the consultant through involvement of staff in the above-listed activities.
- vii. Identifying policy implication, possible challenges, enlist recommendations and implement the recommendations.

6.2 Responsibilities of MoLHUD

The Ministry of Lands, Housing, and Urban Development will be responsible for:

- i. Selecting essential information from deeds and titles to be digitized – given budget constraints; (paper based archives will remain in place for the near future; future LIMS will capture all data).
- ii. Making all the tenure instruments (piece files, titles and deeds) available to the project team.
- iii. Making available staff to bring the files to the team for data entry and procure masks, dust coats as is the case in the current contract.
- iv. Making available rooms at the respective offices for the data entry staff and providing safety measures to protect equipment.
- v. Organizing verification fieldwork activities.
- vi. Using the data for covenant monitoring, improved delivery of land services (like searches, transfers), idle estate identification and improving revenue collection (ground rent) by using data that is up to date.

7.0 Recommendation

Land reform agenda is a huge task that should be undertaken on incremental basis. Countries should track milestones while pursuing land reforms holistically while accommodating emerging issues along the journey.

8.0 Conclusion

The Government of Malawi is implementing major land reforms to deliver land administration at scale. So far, Government has committed itself to improve the legal and institutional framework, land use planning and taxation, management of public land, public provision of land information, dispute resolution and conflict management. A number of initiatives have been deployed to realize this goal. One of them is the project which has been shared to some detail in this paper. It is the project currently underway which is digitization of deeds and titles. It is expected that these reforms will bring social and economic benefits apart from security of land tenure.

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