



Systematic Land Registration in Rural Areas of Lao PDR

Concept Document for countrywide application

*Based on experiences gained in the GIZ supported Programmes
NU-IRDP, LM-RED and LMDP*

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List of Abbreviations

AusAID – Australian Agency for International Development
CLE – Clinical Legal Education
CSLT – Communication for Systematic Land Registration and Titling
DALaM – Department of Agricultural Land Management in MAF
DLPD – Department of Land Planning and Development in MoNRE
DLWU – District Lao Women’s Union
DoF – Department of Forestry in MAF
DoL – (former) Department of Land in NLMA
DoLA – current Department of Land Administration in MoNRE
DONRE – District Office of Natural Resources and Environment
DPT – Digital Plane Table
DPWTO – District Public Works and Transport Office
DSA – Daily Subsistence Allowance
GIS – Geographic Information System
GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit
GPS – Global Positioning System
LAK – Lao KIP (National Currency of Lao PDR)
LAN – Local Area Network
LIWG – Land Issues Working Group
LMDP – Land Management and Decentralised Planning Programme (2015 ongoing)
LM-RED – Land Management and Regional Economic Development Programme (2011-2014)
LMRP – Land Management and Registration Project (2005-2011)
LTP II – Land Titling Project II (2005-2008)
LWU – Lao Women’s Union
MAF – Ministry of Agriculture and Forestry
MoNRE – Ministry of Natural Resources and Environment
MPWT – Ministry of Public Works and Transport
NAFRI – National Agriculture and Forestry Research Institute
NGD – National Geographic Department
NLMA – (former) National Land Management Authority (until 2011)
NPFA – National Production Forest Area
NREIC – Natural Resources and Environment Information Centre in MoNRE
NSED – National Socio-Economic Development Plan (5-Year National Plan)
NTFP – Non-Timber Forest Product
NU-IRDP – Northern Upland Integrated Rural Development Programme (2010-2015)
PLMO – (former) Provincial Land Management Office under NLMA
PLUP – Participatory Land Use Planning

PONRE – Provincial Office of Natural Resources and Environment
PWTO – Provincial Office of Public Works and Transport
QGIS – Quantum GIS (open source GIS software)
SAT – (former) Systematic Adjudication Team
SLLCI – State Land Lease and Concession Inventory
SLR – Systematic Land Registration
SQL – Standard Query Language
ToT – Training of Trainers
TS – Total Station (surveying equipment)
UPS – Uninterrupted Power Supply Device
UTM – Universal Transverse Mercator (coordinate system)
VFMP – Village Forest Management Plan

Glossary

Micro-LUP – Simple land use zonation plans prepared for villages and khumbans in the 46 poorest Districts of Lao PDR under a national programme funded at the request of National Assembly to classify land into the 8 categories stipulated in the Land Law and the Implementation Decree to the Land Law.

PLUP – Detailed land use plans elaborated at village level with participation by the local population, consisting of village boundary delineation, detailed land use zoning, simple land use regulations and future land use mapping, as well as a summary report.

SLR – Systematic Land Registration is an approach to register all existing land rights in a given geographic or administrative area which aims at complete coverage of the selected area.

Land Register – Register of title deeds and database in which the land rights are registered at local or national level

Cadastral – Geographic representation of the registered land parcels, e.g. in a cadastral map

1. Introduction

1.1. Background

In principle, all land in the Lao People's Democratic Republic (Lao PDR) belongs to the National Community, although citizens and legal entities have the right to receive permanent land use rights. These land use rights are certified in the form of land titles, which currently can be issued to individuals (persons, couples, joint ownership or legal entities), collectives and state land. The mandate to survey and adjudicate land parcels and to issue the land titles rests with the Department of Land Administration (DoLA) under the Ministry of Natural Resources and Environment (MoNRE) and their decentralized offices at Provincial (PONRE) and District level (DONRE).

Land reform in Lao PDR is currently in a phase of review and renewal. A draft National Land Policy has been prepared and could be endorsed during 2015, pending some constitutional amendments. Based on the outcome of the discussions surrounding the new land policy, a revised Land Law and a revised Forest Law will be finalised.

The 7th National Socio-Economic Development Plan (NSEDPP) 2010-2015 states a target of a total of 1 million land titles to be issued by 2015. Systematic land registration and titling in Lao PDR started in 2001 with first pilot activities and has reached a total of 806,000 land titles (November 2014). Land titles are issued under systematic and sporadic registration schemes. The vast majority of the land titles have been issued in urban and peri-urban areas, while rural areas have only been reached in the case of donor-funded project support.

Yet, 85% of the Lao population lives in the rural areas and derives its main income from crop production, livestock and the use of natural resources. Access to sufficient and sustainably usable land is a crucial requirement for food security and livelihood improvement for the rural population. It is specifically in the rural areas that large tracts of land have been allocated over the last two decades as land concessions e.g. for rubber, sugarcane or pulpwood production. Mining concessions and large hydropower schemes form an important pillar of the national economy and cover important stretches of land in rural areas of Lao PDR. The absence of approved zoning and land use planning, the unregulated access to land resources and the lack of legal tenure security are major causes of poverty and conflict and hamper economic development in Lao PDR. The Government of Lao PDR has identified this as a central problem. The imminent approval of the National Land Policy and the revision of the Land Law are seen as important steps towards an approach of “accelerated land titling” which is now proposed by the Government.

The German Government has provided technical assistance to the land sector in Lao PDR since 2005. Initially, this support was provided as a contribution to land policy development under the Lao Land Titling Project II, together with World Bank and AusAID. Since 2008, German funded development programs (LMRP, LM-RED and NU-IRDP) have initiated, piloted and tested approaches of improved land use planning (PLUP) and land registration in rural areas. Since January 2015, the new Lao-German Land Management and Decentralized Planning (LMDP) Programme was created with a focus on scaling up systematic land registration schemes in 4 Provinces (Luang Namtha, Sayaboury, Houaphan and Khammouane) and at least 8 rural districts.

This document attempts to summarize the experiences gained through the various pilot and model development activities tested so far, as well as to design a standardized system for systematic land registration in rural areas of Lao PDR. This comprehensive and inclusive system also covers some parts which have not yet been sufficiently piloted but constitute proposals on how to complement the overall approach, e.g. in terms of communal land registration. Any parts of the document suggesting new and untested methodologies will be clearly highlighted. The final objective is to describe an approach to land registration which encompasses all existing land parcels and all categories of land tenure located within the administrative boundaries of a given village or a selected target area.

The final concept document will constitute a guidebook on systematic land registration in rural areas of Lao PDR and will provide a basis for the implementation of the accelerated land titling approach promoted by the Government of Lao PDR. This guidebook will be used for training exercises, as a reference document for field implementation and a source for continued policy development and refinement.

An ambitious target of 400,000 new land titles has been formulated in the 8th NSEDP (2015-2020). This target can best be reached by expanding the current systematic and sporadic land registration activities conducted in the urban areas to rural areas by a systematic and inclusive approach to cover all individual, communal, collective and state land holdings in the identified target areas.

1.2. Land Registration Patterns in the Past and Presence

The Lao Land Titling Projects I and II (LTP) between 1997 and 2009 were the first initiatives to pilot and implement systematic land registration in Lao PDR. Due to various safeguard issues imposed by the World Bank, land registration and titling was limited to urban areas and lowland villages, mostly located in the vicinity of larger towns and urban agglomerations. Under the LTP extensive training was provided to staff from the Department of Lands (DoL), Provincial Land Management Offices and other institutions under the National Land Management Authority (NLMA), which was integrated into the new MoNRE in 2011.

Under the LTP, fairly independent Systematic Adjudication Teams (SAT) were created in all target provinces. These mobile teams consisted of Government staff and hired project staff in order to achieve higher outputs. Yet, the system relied heavily on project funding and came to a virtual standstill after withdrawal of WB and AusAID support. Nevertheless, the SATs managed to register approximately 650,000 parcels across 11 provinces of Lao PDR over the timespan of 9 years. The Land Titling Project applied four types of surveying technologies for the measurement of land geometries including (i) aerial photomaps, (ii) taping from ground control points, (iii) differential GPS, and (iv) total station. All four methods were used in combination with field measurement by tape for monitoring and quality control purposes.

After the end of LTP II, the Government staff returned to the PLMOs and some of them were later integrated into the newly created PONREs at Provincial level. Since 2009, PONREs across the country have continued land registration activities on a reduced scale, mostly due to the lack of consistent funding. Over the past years, the Government of Lao PDR only invested approximately 3 billion Kip (approx. 375,000 US\$) into the support of land registration per year.

In some cases Provincial administrations have provided additional funds for land registration in municipalities and selected towns. Relatively high survey fees are charged by PONREs for surveying agricultural and construction land parcels in accordance with Article 78 of the Presidential Decree No. 003, 2012. This revenue from the first-time land registration was designated to speed up land titling across the country. This concept has only partly achieved its targets, as the largest share of the revenue from collecting survey fees is channelled into the national budget, and implementation of land registration activities still depends on annual budget allocations through the Ministry of Finance. Since 2010, only 156,000 additional parcels have been registered countrywide to reach a total of 806,000 titles by November 2014.

PONREs and DONREs across the country continue to apply two systems of land registration: systematic registration of individual, collective and state land parcels in selected administrative units (e.g. villages), provided funding is available, and sporadic registration of individual land on request which is subject to much higher fees.

Despite the on-going efforts by DoLA and the PONREs across the country to expand the land registration activities, these remain highly dependent on the allocation of national budget funds. The overall output also depends on the demand for sporadic registration and the implementation of pilot projects by the Government of Lao PDR, such as the recent land consolidation and food security pilot activities in Gnommalath District, Khammouane Province which foresees the registration of up to 12,000 parcels before land consolidation.

So far, there is no comprehensive approach for systematic land surveying, registration and titling in rural areas, which constitutes a prerequisite to secure land rights for a majority of the Lao population. In the absence of an approved standardized land registration system applicable to all areas and with sustainable funding mechanisms in place, localized approaches are pursued, which still to a large degree focus on urban areas, zones of national development projects or sporadic registration for mostly better-off people with an urgent need for title issuance.

1.3. Guiding Principles for the Development of a Comprehensive Land Registration System for Lao PDR

Any comprehensive land registration system for Lao PDR must fulfil a number of basic requirements and principles. When DoLA and GIZ started to define a new model for systematic land registration to be tested in the remote District of Vieng Phou Kha in Luang Namtha Province in 2011, the following key principles were defined:

For the new model a compromise must be made between cheap and rapid implementation and required accuracy levels:

- time to establish a blanket coverage cadastre/register for Lao PDR should be less than 10 years
- the model must be cost efficient and self-financing through sustainable funding mechanisms; overall costs **per parcel should be 10-15 US\$**
- the register/cadastre must have adequate **reliability**, i.e. better than 98%
- the procedures and services related to registration/cadastre should be considered as **satisfactory by the citizens**

- the most important **check is done by the population itself**: 30 days of public display of the cadastral index map and the list with all legally relevant textual entries must be foreseen.

The aim of the model stated in the key principles above is to select a technology for land registration which allows a fast registration, is accurate enough and as affordable as possible.

These principles lead to the following consequences for the design of the model:

- Procedures and tools must be clear and standardized and applicable for government personnel working at DONRE level, as the implementation of land registration activities should be decentralized to the lowest administrative level possible
- Land registration procedures should be digitized to the highest degree possible
- Necessity to use modern technology with required accuracy
- Systematic registration to optimize costs in relation to output
- Design model according to needs and expectations of the population

According to the World Bank report “Comparative Study of Land Administration Systems, Global Synthesis of Critical Issues and Future Challenges” (Brits, Burns, Grant, Nettle, 2003) the cost for systematic registration is usually between 15 – 30 USD/parcel. For any full coverage in Lao PDR, the cost for systematic registration should be in the range of 10 to 15 USD/parcel.

From the perspective of the Government of Lao PDR any approach to systematic land registration in the country must be cost re-covering either by more efficient, equitable and transparent land tax collection and/or from increased fee revenue from subsequent registration activities (see details under Chapter 9.5).

In recent years, land registration activities worldwide have benefitted from the application of modern technologies and the digital revolution. The use of satellite based surveying systems, data entry of surveying and adjudication data on tablets and laptops in the field and the switch from hardcopy filing systems to digital cadastral management systems have all contributed to major gains in overall efficiency. In Lao PDR the introduction of the Lao LandReg cadastral data platform, which has meanwhile been accepted as the standard system countrywide, was an important step in this direction and has the potential to be further developed into a comprehensive digital ‘Land Information System – LIS’. The basis for this system is an up to date cadastral database with spatial data that represents the legal boundaries of land tenure and attribute data that inform about the register (see further details under Chapter 8.4).

In order to be adapted to the local situation, the new concept of systematic land registration must:

- Follow the current legal framework
- Make best possible use of the existing limited staff resources available at DoNRE or PoNRE levels
- Incorporate appropriate numbers of external contracted staff or volunteers to support DONRE and PONRE in the technical field work and office activities
- Provide clear working steps with administrative responsibilities and good work organization

- Make use of the most appropriate and tested modern technologies for surveying and data management
- Provide for a clear target group orientation
- Follow the principles of cost-efficiency
- Provide for a countrywide applicability in view of existing mandates, responsibilities and management capacities.

2. Objectives of Systematic Land Registration (SLR)

The key objective of implementing a systematic land registration approach in rural areas of Lao PDR is **to provide tenure security** by securing land rights for the local population. There are numerous cases where villagers have lost their customary tenure rights to land in the past with grave consequences for their livelihoods. This was mostly the case in rural areas and has led to migration, impoverishment and social alienation.

Furthermore, land registration and titling should have the following positive effects:

- a) Legally recognised boundaries between settlement areas, agricultural land, livestock zones and forests
- b) A reduction of land conflicts and encroachments; more transparency of land use rights
- c) Increased opportunities for investment into land by villagers due to secure tenure and the possibility to use an individual title as a collateral for mortgage
- d) Support to a gradual transformation of agricultural use towards more permanent and/or intensive cropping systems; increase crop and livestock production in the longer term
- e) Better protection of natural resources and the environment e.g. by reducing the encroachment of cultivation into delineated forest areas
- f) Clear investment opportunities are identified in areas registered as state land
- g) Give additional value to and make use of the widely conducted land use planning activities

According to current policies of the Government of Lao PDR, which strongly emphasize on the decentralization of the administration, the following benefits of land registration have been stated:

- Land registration is to certify legal land rights of a person or legal entity over a particular land parcel
- Promote the confidence of landholders on land tenure security
- Contribute to national poverty eradication
- Perform the policy of the government on turning land into capital
- Support value adding for land and facilitate the management of land
- Provide landholders with an opportunity to develop their land-based economy in line with their specific personal objectives
- Land ownership visualized in a parcel sharp digital cadastre eases the planning and land zonation exercises for investment planning

3. The Legal Framework for Land Registration in Lao PDR

The legal framework for land registration and legal land tenure in Lao PDR is defined in the following key legal documents:

- the Constitution (No.25, 2003)
- the Land Law (No.04, 2003) which is currently under review and awaiting the official endorsement of the National Land Policy document
- the Decree on the Implementation of the Land Law (No.88, 2008)
- the Collection of Fees and Service Charges by the Land Management Sector (Pres. Decree No.003, 2012) and
- the Instruction on the Use of New Formats of Land Titles and New Registration Book (No.012, 2010).

A more comprehensive list on relevant legal documents governing the land sector in Lao PDR can be found in Annex 1.

In August 2014, the important Ministerial Instruction on Adjudication pertaining to Land Use and Occupation for Land Registration and Titling (No. 564, 2007) which basically covers the overall procedures to be followed when registering land in Lao PDR, was replaced by the Ministerial Directive on Land Registration and Titling (No. 6036, 2014). The requirements and techniques of surveying land parcels have equally been reviewed recently in the new Ministerial Directive on Land Survey and Mapping (No 6035, 2014).

Article 17 of the Constitution states: “The State protects the property rights (such as the rights of possession, use, usufruct and disposition) and the inheritance rights of organisations and individuals. Land is a national heritage, and the State ensures the rights to use, transfer and inherit it in accordance with the laws”. In the Land Law (2003) in Article 3 on Land Ownership the central role of Government in land administration is highlighted: “Land of the Lao PDR is under the ownership of the national community as prescribed in the Constitution in which the State is charged with the centralized and uniform management [of land] throughout the country and with the allocation [of land] to individuals, families and economic organisations for use, lease or concession,” In Article 5 of the Land Law the specific rights of land holders are listed: “The State protects the legal interests of the holder of land use rights by allowing effective, peaceful, regular and long term use of land and by ensuring the [person’s] protection right, use right, usufruct right, transfer right and inheritance right”.

According to the new Ministerial Directive on Land Registration and Titling (No. 6036, 2014) land titles can be issued to individuals, juridical entities, collectives, communities and state organizations. Land registration in general is considered as an attestation of the legal rights of individuals or organizations to use the land and the Directive differentiates between systematic and sporadic registration. In terms of individuals or juridical entities five rights with regards to the use of land are defined, namely: the right to protect the land, the land utilization right, the right to benefit from the land (usufruct), the right to transfer the land use right and the land inheritance right. The Ministerial Directive also defines and recognizes customary rights to use land which have been integrated into the draft revised Land Law: “the right of a community as a whole to use the land, which the community has managed, protected, developed and made use in a peaceful and continuous manner for a long time”. However, the land that is being occupied and

used must not be located in reserves and protected areas of the State. Accordingly, the Directive makes reference to a total of 4 different title documents to be used: land titles for individuals and juridical entities, collectives, communities and the State.

Furthermore, the Ministerial Directive defines:

- a) the principles governing land registration and titling,
- b) the applicable procedures,
- c) the roles and responsibilities of the offices in charge of land registration and titling at the various administrative levels as well as the rights, duties, and responsibilities of the land users,
- d) the organizational structure, rights, duties, and responsibilities of the land registration and titling team, as well as the District Committee on Classification (also referred to as “Conclusion Committee”),
- e) the storage and protection of data on land registration and titling,
- f) the grievance mechanisms,
- g) the documents required for land registration and titling,
- h) the fees and service charges for land registration,
- i) the prohibitions,
- j) encouragements and disciplinary actions and
- k) implementation instructions (detailed standards and conditions for land registration and titling).

This concept document attempts to provide the guiding principles for such an implementation instruction.

Reference will be made to the specific stipulations of the Ministerial Directive No.6036 in the corresponding chapters below. Overall, the Directive can be considered as a progressive and technically sound document which provides a reasonably good basis for countrywide implementation of land registration and titling. What is still lacking are some adaptations of the general procedures for land registration and titling as described in the Ministerial Directive to the conditions prevailing in the rural and mountainous areas of Lao PDR, some practical guidelines for the implementation of land registration by the SLR teams, clear procedures for registration of communal lands and an applicable title format for communal land. All these missing elements or insufficiently defined work procedures will be described in the chapters to follow.

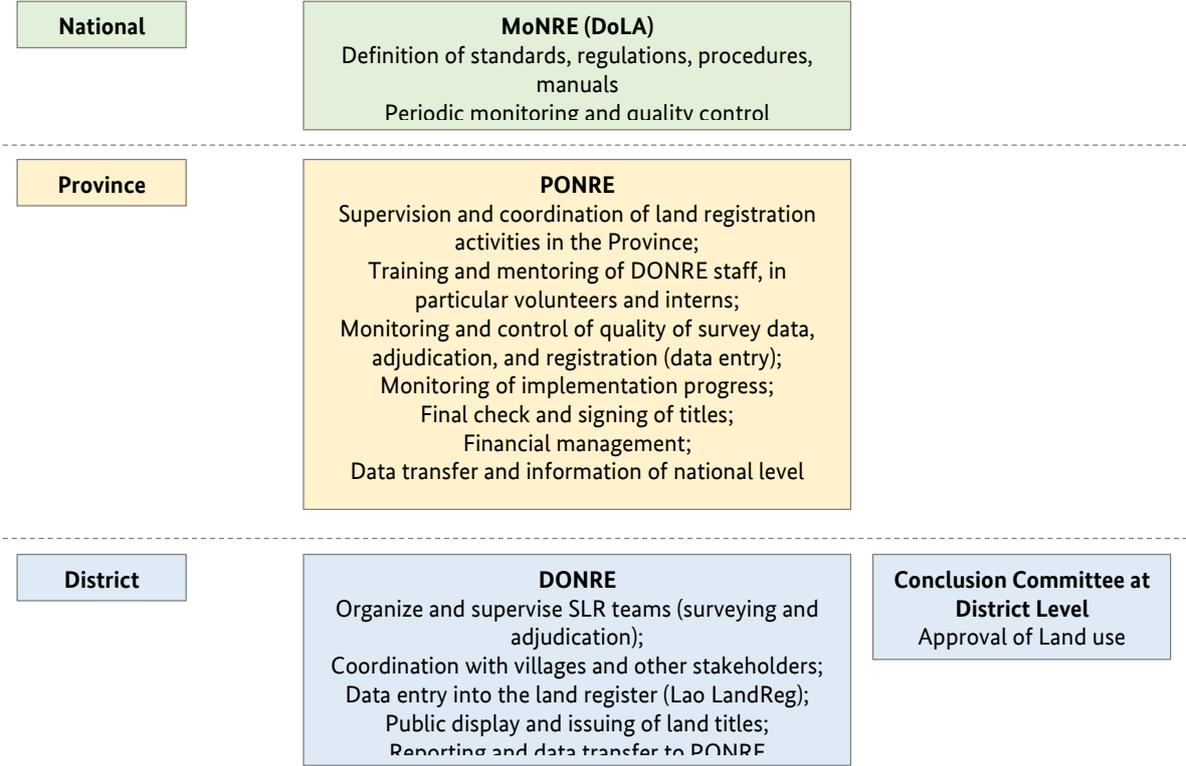
Once the National Land Policy has been officially approved, one of the major challenges for the land sector in Lao PDR will be to revise and adapt the Land Law without further delays. After the Land Law is approved, the Implementation Decree to the Land Law will have to be adapted accordingly. Another requirement in order to complete the legal framework will be to draft a complete guideline on the registration of communal and state land parcels, based on the revised Land Law, the Implementation Decree and this concept document.

4. Institutional Responsibilities for Land Registration in Lao PDR and Cooperation Needs between Line Ministries and Agencies

According to the Prime Minister’s Decree, No 435/PM, dated 28 November 2011, on the Organization and Activities of the Ministry of Natural Resources and Environment (MoNRE), land management and land administration, including land registration and titling fall under the overall responsibility of this ministry. At present, the mandate for land administration lies with the Department of Land Administration (DoLA), while the Department of Land Planning and Development (DLPD) is broadly in charge of land management activities, such as land classification, zoning and land use planning. In addition, the Natural Resources and Environment Information Centre (NREIC) provides information and data on land resources in the country. Since middle of 2015 an institutional reorganisation of the departments in charge of land reform has been approved. The above-mentioned departments will be combined into a new “Department of Lands”.

Correspondingly, the mandate for the implementation of land registration activities at Province level lies with the Provincial Office of Natural Resources and Environment (PONRE) and at the District level with the District Office of Natural Resources and Environment (DONRE).

The overall roles and responsibilities for land registration can be summarized as follows:



For the actual implementation of the land registration activities “Systematic Land Registration” teams need to be set up at district level. Under the current situation a normal DONRE in a rural area would have 5 – 12 technical staff members in addition to the Director and Vice-Director. Of these technical staff usually only two-thirds are permanent Government staff, while the others are working as volunteers, waiting for an opening for a permanent position. In view of the

numerous tasks to be undertaken by the technical DONRE staff, such as forest protection, support to village forestry, participation in land use planning activities and land registration, the available staff numbers are generally insufficient. Furthermore, professional education levels of most DONRE staff remain low. It has to be clearly recognized that staff availability is one of the most prominent limiting factors to wide-scale land registration in rural areas.

In the past, the lack of available staff at the local level was overcome by the establishment of “mobile teams¹”, which on the other hand are relatively expensive to operate in terms of logistics, travel cost and daily allowances. In line with the decentralization policy of the Government of Lao PDR, the Ministerial Directive 6036 clearly places the main responsibility with regards to land registration on the District Administration and DONRE. As already tested and implemented with support by GIZ in Luang Namtha, Luang Prabang, Sayabouri, Houaphan and to a lesser degree in Bolikhamxay, Phongsaly and Attapeu (see Chapter 6), district-based SLR teams are the best possible solution. One SLR team should ideally consist of a minimum of 4 technical staff, with two team members focussing more on the surveying activities and the other two team members in charge of adjudication activities. Each district should have one to two SLR teams in order to ensure a meaningful output in terms of registered parcels per year. In practice, no difference is made between permanent and volunteer staff assigned as SLR team members.

In case the available technical staff at district level is clearly insufficient, one option is to second staff from PONRE on a permanent or temporary basis to assist in the SLR team. This approach has already been put into practice in Houaphan and has yielded promising results. On the other hand, seconding provincial staff might not be possible if SLR is to be conducted in several districts in one province at the same time.

Another option is the integration of graduates from Vientiane Polytechnic as interns into the SLR teams. Any internships by these graduates should consist of a minimum 6 months period, which could be renewable. Not more than two interns should be allocated to each SLR team, not to overburden their on-the-job training responsibilities and interns should not be used as a substitute for DONRE or PONRE staff in the longer term. On the other hand, familiarisation of the graduates with land registration activities in the field would provide them with practical experiences and would greatly enhance their chances for future jobs with the public or the private sector. One pre-condition for the use of graduates as interns in SLR teams would be the improvement of their theoretical knowledge during classes on surveying and adjudication techniques and practices.

In other countries, lack of available staff has been overcome by outsourcing especially the surveying activities to certified surveying companies. At present, the legal framework for this outsourcing is still missing in Lao PDR, but could be considered as an additional option for speeding up the countrywide land registration work.

At district level DONRE can either nominate one coordinator for the SLR teams or this role can be taken up by a seconded PONRE staff. The detailed roles and responsibilities of the coordinator at district level as well as the supervising and supporting staff at PONRE are described in detail in Annex 2. The composition and tasks of the District Conclusion Committee are also presented in Annex 2.

¹ “mobile teams“ are land registration teams composed of a mix of DoLA/PONRE/DONRE government staff, volunteers and hired staff which are operating from a provincial base in any of the districts of that province and move from one designated registration area to another within the province.

Within DoLA a national coordination team on systematic land registration activities has recently been set up. The team consists of 7 senior technical staff under the supervision of one Deputy Director General of DoLA. The team combines expertise from registration, cadastre, legislation and international cooperation. This team will supervise and coordinate systematic land registration activities in the whole country and provide assistance to the provincial and district levels where necessary.

While MoNRE is clearly in charge of land registration and titling activities, this work needs to be carefully coordinated with other Ministries and line agencies. One example is the role of the Ministry of Public Works and Transport (MPWT), which according to the law needs to assess and confirm existing or planned access to all residential land parcels to be registered, as in Lao PDR the option of registering an easement for access to neighbouring parcels is provided in a separate regulation, but not considered a preferred option. Furthermore, MPWT needs to be consulted and needs to approve setbacks for the access roads. It must be noted though that these setbacks can be modified by District Authorities in accordance with local needs and conditions.

The registration of state land also falls under the mandate of MoNRE. This includes forest areas and state farms managed under the mandate of the Ministry of Agriculture and Forestry, hydropower zones and mining areas falling under the Ministry of Energy and Mines, roads and communication land falling under the Ministry of Public Works and Transport, cultural and tourism sites managed by the Ministry of Information, Culture and Tourism, national defence and security zones falling under the Ministry of Public Security or the Ministry of Home Affairs. In addition, most educational and sport facilities will fall under the Ministry of Education and Sports, while industrial zones and commercial areas could be registered under the Ministry of Industry and Commerce. These few examples show the need for close cooperation and coordination among the relevant ministries with regard to land registration, in particular in the case of state land.

On mapping and surveying issues a close cooperation between MoNRE and the National Geographic Department (NGD) with its Surveying & Mapping Center under the umbrella of the Ministry of Home Affairs has already been established, yet requires further steps under the framework of expanding land registration activities to rural areas.

5. Land Use Planning as a Prerequisite for Systematic Land Registration in Rural Areas

Zoning and land use planning activities at village and village cluster (khum ban) level have a long history in Lao PDR. First pilot activities started in the early 1990s under the heading of Forest Land Allocation (FLA) by the Department of Forestry and were later used as a starting point for the National Programme on Land Use Planning and Land Allocation (LUP/LA) implemented by the Ministry of Agriculture and Forestry between 1994 and 2001.

Starting from 2003, several donor-funded projects attempted a revision and improvement of the village land use planning approaches, with a particular emphasis on a more participatory work process. These experiences were summarized in June 2009 in the “Manual on Participatory Agriculture and Forest Land Use Planning (PLUP) at Village and Village Cluster Level”. In 2009, the revised PLUP approach was endorsed by the National Land Management Authority (NLMA) and the Ministry of Agriculture and Forestry (MAF). The National Agriculture and Forestry Research Institute (NAFRI) published a “Handbook on Participatory Land Use Planning (PLUP) Toolbox” in 2012. Since 2009, the PLUP methodology based on these two handbooks or manuals has been implemented in a large number of villages, mostly in the context of donor- or NGO-funded projects or private sector investment projects across all provinces of the country. PLUP leads to a detailed land classification and zoning at village level with strong participation of the villagers and the results of the land use planning are presented on maps and in a short report which is then submitted to the District Authorities for final approval. In practice, PLUP is mostly conducted by district teams consisting of DONRE and DAFO staff. While formally speaking, the overall mandate for land use planning lies with MoNRE and therefore DONRE at local level, a participation of agricultural and forestry staff from DAFO is essential for all rural villages. In 2012, the new Department of Agricultural Land Management (DALaM) was established under MAF which has the overall mandate of improving the management of agricultural land. DALaM is meanwhile represented in all District Agriculture and Forestry Offices across the country and their expertise is important for the elaboration of PLUPs.

Between 2009 and 2013, the Department of Land Planning and Development (DLPD) under NLMA and later MoNRE has been tasked to prepare so-called micro land use plans (Micro-LUP) for the 47 poorest districts of the country. The Government of Lao PDR has invested a total of 25 billion Kip into the elaboration of these Micro-LUPs. The overall intention was to establish land classification and zoning for all village clusters in the poorest districts by differentiating the land into the 8 land categories as stipulated in the Land Law (2003), Art. 11, namely agricultural land, forest land, water areas, industrial land, communication land, cultural land, land for national defence and security and construction land. These 8 categories were revised in 2011 in order to harmonise the coding, colouring and labelling of the zones. The category of “communication land” was deleted.

The elaboration of Micro-LUPs was coordinated and conducted by DLPD staff, while DONRE and PONRE staff assisted at local level. Most of the Micro-LUP data was prepared at village cluster level, with limited involvement of the local population in the villages. Reports and maps of Micro-LUPs are available with DLPD in Vientiane, but rarely at PONRE or DONRE.

Pilot activities in land registration in Luang Namtha, Luang Prabang and Houaphan have shown that Micro-LUPs do not achieve a level of detail in the land classification and zoning to be useful

for any subsequent surveying and adjudication activities. Micro-LUPs would have to be reviewed and upgraded in order to provide a workable basis for land registration. On the other hand, detailed PLUPs form an essential basis and are a prerequisite for land registration activities in rural areas.

During a normal PLUP process as described in the PLUP Manual there should be intensive discussions in the villages about present and future land use and the identification, classification and delineation of land use zones within the village administrative boundaries. These discussions and the resulting mapping should lead to a basic understanding what areas can be identified as private (individual) land, what could be considered as collective or communal land and what constitutes state land areas at local level.

Overall, the PLUP procedures have strengthened village responsibilities for natural resources and land management as well as created an awareness on rights and responsibilities of villagers. Under the framework of PLUP a special village committee in charge of managing the village land resources, such as agricultural, forest and residential land is set up. It carries different names according to the area (village forest and agricultural land committee, village land use committee or village land use and forest management committee (VLUFMC or VLMC)). The existence of a dedicated village land use and forest management committee is of high benefit for the work of the SLR teams in the target villages.

Furthermore, during the PLUP process important socio-economic and land use related data are collected. In numerous cases modern remote sensing materials (satellite images or orthophoto maps) are applied during the PLUP work, which also yields valuable information for the land registration which follows. The village boundary delineation is one of the first working steps in PLUP and finally the land use maps should provide a good overview over the village territory, the different land use zones and the corresponding boundaries. Due to the development of a general land use vision for the village area, the clear demarcation of village boundaries, the zoning of productive land, land use plans provide an obvious basis for SLR activities. Detailed land use plans thereby become a prerequisite for the land registration activities to start. In addition, land use plans will provide an important tool for monitoring land use changes after land registration activities have been undertaken in the area.

A comprehensive and systematic approach to land registration and titling in rural areas of Lao PDR cannot be implemented without the information and data provided in the PLUP maps and reports. Furthermore, the existence of a dedicated village land use and forest management committee is of high benefit for the work of the SLR teams in the target villages.

However, minimum quality criteria and standards have to be fulfilled by a village land use plan to be useable as a foundation for the land registration work. The following criteria and standards for land use plans have been retained:

Table 1 Minimum standards and quality criteria to be applied for the selection of land use plans as a basis for land registration

Criteria	Minimum Requirements
Date of preparation	Less than 5 years old (otherwise a review and updating is necessary!)
Approval	Officially approved by District Authorities (if not, this approval would have to be requested beforehand)
Completeness	Consists of maps and a short report including essential socio-economic data (otherwise a review and updating is necessary!)
Scale	Scale larger than 1:20.000
Degree of detail in the land use zones	Shows various agricultural use areas: e.g. paddy, upland cultivation areas, gardens, fruit tree plantations if available; possible areas for future allocation for agricultural use
	Identifies livestock zones where applicable
	Clearly distinguishes various forest categories: e.g. conservation forests, protection forests, production forests, village use forests, cemetery or sacred forests, tree plantation areas
	Shows present and possibly future settlement area
	Shows cultural sites, like temples or sites for spiritual practices
	Shows waterbodies, such as lakes, ponds, main streams and important roads
	Identifies areas suitable for investment projects (where applicable); these areas will later be registered as state land
Participation of villagers	Some proof that the land use plan was elaborated together with villagers (e.g. reports on village meetings) and not only on the basis of maps in the office.

For any systematic land registration activities in rural areas of Lao PDR, the need for a preceding PLUP process means that:

- Land registration should be undertaken where recent land use planning with a sufficient degree of detail and following a participatory approach has already been conducted and outputs (maps, remote sensing materials, short reports) are available.
- PLUP activities should be initiated in areas where villages have not yet been covered, or PLUP activities should be completed in areas where preparation for future land registration has already started. Intensified and coordinated donor and NGO support for the extension and completion of PLUP activities will be essential.
- Availability and handling of data from land use planning will have to be strengthened at DONRE or PONRE level. Overviews for districts and provinces on available land use plans and a compilation of the land use maps would be extremely helpful.
- Based on the information about existing land use plans, PONRE and DONRE need to set up realistic plans for the expansion of PLUP activities and the follow-up land registration activities in parallel.

6. Results of Piloting and Testing Activities in Selected Provinces

6.1. Piloting under the Lao-German LM-RED in Luang Namtha, Sayabouri, Bolikhamxay and Attapeu

The district of Vieng Phou Kha was selected as a target area for piloting of a land registration model for rural areas under the Lao-German Land Management and Regional Economic Development (LM-RED) programme. Implementation activities started in early 2011 in close cooperation between DoLA, PONRE Luang Namtha and the DONRE of Vieng Phou Kha.

The Deputy Director of DONRE was assigned to supervise and coordinate the pilot land registration activities in the district. In total 2 SLR teams were appointed in the district, consisting of 4 technical staff members each (2 Government staff and 2 volunteers per team). In the SLR team, two members focused on the adjudication activities, while the other two undertook the surveying tasks. A “central unit” at the DONRE office took care of the data entry into the Lao LandReg data management system.

In order to prepare the SLR teams for their new tasks extensive preparatory and on-the-job training was provided by DoLA staff, GIZ advisors and PONRE. The training covered all working steps, starting with the initial steps of field work preparation and communication for systematic land registration and titling (CSLT), adjudication and surveying work in the villages, filling of adjudication forms and data entry and, finally, conclusion on land use rights, preparation of titles, cadastral index maps, public displays as well as data transfer and quality control.

For the training and start-up phase in early 2011, DoLA seconded 3 trainers to provide training in theory and practice as well as coaching during SLR implementation in the first villages. PONRE initially seconded 2 staff members in order to assist in field work. At a later stage, the SLR teams also received some additional support from students of the Vientiane Polytechnic who did their internships in Vieng Phou Kha.

DONRE Vieng Phou Kha was equipped and supported with a standard set of equipment and materials, such as computers, printer, office furniture, motorcycles, surveying equipment and supporting materials for the field work.

Overall, the district of Vieng Phou Kha comprises 47 villages, mostly inhabited by ethnic minorities. Large parts of the district fall into the Nam Ha Protected Area. Accessibility to the more remote villages was an obvious challenge for the implementation of the SLR activities. Surveying and adjudication started in the first village in May 2011. Between May 2011 and December 2014, the two SLR teams worked in a total of 24 villages.

Table 2 Status per 31.12.2014 in Vieng Phou Kha in 24 villages

Parcels surveyed	Parcels registered	Parcels concluded and public display	Titles printed	Titles distributed
4,397	3,890	2,607	1,915	1,500

In late 2013, a joint decision between DoLA and GIZ was taken to expand SLR pilot activities to 3 additional districts in Provinces of Saybouri, Bolikhamxay and Attapeu. Following a similar approach as in Vieng Phou Kha, surveying and adjudication activities of one trained and

equipped SLR team started at the end of 2013 in Bolikhamxay and Attapeu and in May 2014 in Xienghone district of Sayabouri.

Table 3 Status per 31.12.2014 in the other Provinces

Province	District	Vilages	Parcels surveyed	Parcels registered	Parcels concluded and public display	Titles printed	Titles distributed
Sayabouri	Xienghone	3	1,238	599	335	335	0
Bolikhamxay	Viengthong	2	576		106	106	
Attapeu	Phouvong	1	114		96	28	

It is important to note that the pilot land registration in Vieng Phou Kha only covered family plots for residential use and permanent agriculture (mostly paddy or plantations) for which individual titles were issued. In addition, some communal titles were issued for smaller areas, such as village halls, ponds, communal plantations, temples (Wat) and one spiritual forest. Some small state land parcels as e.g. school grounds, police stations, public administration offices etc. were also surveyed and registered. Nevertheless, all larger communal or collective parcels as well as larger areas of state land were excluded, as the titling of communal/collective land still lacks approved procedures (see chapter 7.2) and uncertainty surrounds the classification and registration of large state land parcels, e.g. conservation and protection forest (see chapter 7.3).

An average of 183 parcels was surveyed in the 24 villages, while only an average of 162 parcels per village was registered as adjudication work could not keep up with surveying work and land files remained incomplete. In Xienghone, the average of 413 parcels surveyed per village was much larger, due to the higher proportion of paddy fields and increased number of village inhabitants compared to Vieng Phou Kha.

Table 4 Composition of land parcels registered in Vieng Phou Kha

Type of Land Use	Private/Individual	Communal	State
Permanent Agriculture (Paddy and Gardens)	66,0%	0	0.1%
Plantation (mostly rubber)	12.9%	0.2%	0.5%
Built Up, Construction Land	20.0%	0.3%	0.1%
Total	98.9%	0.5%	0.7%

Based on these first figures on land registration in rural areas **it can be estimated that an average rural village will have a total of 250 – 300 parcels**, with a majority of the parcels falling within the category of permanently used agricultural land, followed by built up residential and construction land and various communal/collective or state land parcels.

The main lessons learnt during the pilot activities in Vieng Phou Kha and from the other districts can be summarized as follows:

- The overall implementation of the land registration and titling activities at district level has been slower than expected. This is mainly due to the limited availability of the SLR team members who have multiple assignments within DONRE and can only dedicate part of their working time to SLR activities. In theory, the overall timespan needed for

SLR is 113 days from the initial steps of CSLT to the handing over of the titles. Nevertheless, this is an estimate based on the experience in the pilot district Vieng Phou Kha and can vary greatly. In some cases the timespan between surveying and issuing of titles was as long as 6-9 months.

- It is still very difficult for DONRE to access relevant datasets on land use (e.g. Micro-LUPs), administrative boundaries etc. on their own.
- There is an urgent need to strengthen data exchange with the National Geographic Department, Public Works & Transport Office and even data from MoNRE, e.g. DLPD and NREIC.
- The majority of the rural population is aware of the benefits of land registration.
- The systematic approach to land registration has proven to be more cost efficient than sporadic registration.

This leads to the following recommendations:

- Available staff resources at DONRE level for SLR activities need to be increased by secondment of PONRE staff, the integration of graduates from Vientiane Polytechnic into the SLR teams or outsourcing in the longer run.
- The main recommendation emerging from this is that the SLR teams should be able to plan and implement their activities as independently as possible and team members should not be bogged down by multiple assignments. **The realistic average annual output per experienced SLR team is in the range of 1,500 to 1,800 parcels or roughly 6 villages per year.**
- The Government of Lao PDR should initiate widespread campaigns for raising awareness on the benefits of land registration and the land rights.
- A transparent approach to the registration of communal/collective and state land is urgently required.

6.2. Pilot Activities under the NU-IRDP in Houaphan, Luang Prabang and Phongsaly

Pilot activities in land registration were also promoted under the sister programme of NU-IRDP (Northern Uplands Integrated Rural Development Programme). Under a very similar approach district teams were supported under the German-funded programme to implement systematic land registration based on recent land use plans in the following target areas:

Table 5 Target areas of NU-IRDP for piloting land registration and achievements between 2011 and 2013

Province	District	Villages	Parcels Registered	Private/ Individual	Communal/ Collective	State
Houaphan	Viengthong	12	1,002			
	Houa Meuang	3	635			
	Phonexay	7	978			
Luang Prabang	Pakxeng	5	542			
	Khoua	6	512			

Phongsaly	Samphan	4	445			
	Mai	2	334			
Total		39	4,448	96.2%	2.6%	1.2%

It must be noted that the average number of parcels registered per village was only 114. In many villages only built-up land was surveyed and registered. Full coverage of all available residential and agricultural parcels was only achieved in a small number of villages. Once again, only smaller communal or state land plots were included in the registration process.

After 2013, NU-IRDP focussed exclusively on piloting communal land registration in the village cluster (khum ban) of Soy in Houaphan Province. The intention was to initiate the first steps towards secure communal land use rights, in view of still unclear legal foundations but high demand for increased land tenure security by local communities. Until June 2014, communal land registration was completed in 11 villages. Due to the remaining uncertainties with regards to the land title documents, no titles were issued, but the parcels are registered in the Lao LandReg database at PONRE Houaphan. The district team completed the surveying work for a total of 95 parcels with an overall area of 7,038.37 ha (average 74 ha per parcel). This demonstrates clearly that the team attempted to specifically survey and register the larger communal parcels, such as communal crop areas (upland agriculture zones), the communal paddy areas, which are a specific feature of Houaphan Province, the village use forest and communal livestock areas. The actual survey was done by walking along the boundaries of the communal areas and measuring corner points by handheld GPS or Starfire SF 3040.

Table 6 Communal land registration in Khum Ban Soy of Houaphan Province

Land Use Category	Parcels	Area in ha	Average area in ha
Paddy	50	163.58	3.3
Upland Crop Areas	20	2,981.04	149
Village Use Forest	17	2,642.32	155
Livestock Areas	8	1,251.43	156
Total	95	7,038.37	74

On average, the 11 villages in the village cluster of Soy had 9 communal parcels per village, which does not include smaller plots e.g. for the village hall or communal ponds.

The piloting of communal land registration in Houaphan has shown that:

- All villages in the cluster had areas which villagers considered as “communal land” and which they wanted to continue using and managing as an entire community.
- Surveying the upland and forest areas was a major challenge and required long time (any area above 50 ha requiring 2 days or more); the placing of boundary markers (bamboo poles filled with cement) provided additional challenges; the biggest single parcel had more than 280 ha.
- Despite their appreciation for the communal land registration work, villagers were confused about the reasons for not registering the individual or “private” land at the same time.

Due to the specific set-up, objectives and activities, neither of the two German funded programmes has managed to pilot and test a comprehensive approach to systematic land registration for all categories of land tenure in the same village. It is therefore necessary to complement the experiences gained through the pilot activities by additional working steps and tools as described in this concept document.

7. The new Systematic Land Registration Concept

Based on current experiences with land registration in rural areas, mainly from Luang Namtha, Saybouri, Luang Prabang, Phongsaly and Houaphan (as summarized in the previous chapter), a new concept for systematic land registration can be deducted and designed. The new concept must be comprehensive, as recent studies from Lao PDR and Cambodia have proven that land registration covering only part of the overall land area used by villagers, e.g. only the “private” plots or only the communal parcels, decreases the tenure security and potentially increase the appropriation pressure on the other, non-registered land areas.

In this chapter the revised and complemented approach is described in detail.

The new concept has the following key characteristics:

- Systematic land registration in rural areas of Lao PDR should be inclusive and comprehensive. The aim of systematic land registration in a village is to survey and adjudicate all existing land parcels in the administrative village area. All private/individual, communal, collective or state land parcels should be included in the work and titles need to be issued for all registered land, with the exception of larger state land parcels (e.g. military or security zones, conservation forests or protection forest). Surveying and adjudication of the various land tenure categories is conducted in parallel. The resulting cadastral index map will depict a complete network of parcels for the village area.
- District SLR teams with a minimum of 4 team members should be created and trained to perform all necessary working steps of communication, surveying and adjudication of all parcels (individual, communal/collective and state) at village level and ensure correct entry of data into the Lao LandReg database. Per district there can be one or several SLR teams. SLR teams under the supervision of PONRE and DONRE elaborate annual workplans which show the sequence and intended working steps village by village. SLR teams should receive a standard set of modern surveying equipment and materials. Surveying and adjudication work is done on a digital platform, fulfilling minimum quality and accuracy criteria.

For each of the rural villages selected for SLR an approved (participatory) land use plan, not older than 5 years must be available (see all applicable criteria in detail in Chapter 5).

7.1 Registration of Individual (Private) Land and Land of Legal Entities

In accordance with the Land Law (No.04/NA, 2003), the Decree on the Implementation of the Land Law (No.88/PM, 2008) and the more recent Ministerial Directive on Land Registration and

Titling (No.6036/MoNRE, 2014) land for persons using the land can be registered and titled under the following circumstances:

- a) In case the land user can produce a “complete set of legal documents”, which is rarely the case and virtually inexistent in rural areas.
- b) In case the person using the land “has incomplete documents, but it is recognized that the land parcel has been developed, protected, used continuously, openly, and peacefully; furthermore the land must not be located in the State reserve area”.
- c) In case “the beneficiary receives the right to use land as part of a land exchange deal or as land re-allocation for compensation”.
- d) In case the person has “the traditional (customary) right to use the land, in which the person who occupies and uses the land has protected, developed, and used the land in a peaceful, open and continuous manner for a long time, however he/she does not yet have documents to prove how he/she has taken the land into possession, and this land parcel is not located in a State reserve area. In such instance, the village chief and those who occupy and use the adjacent land parcels need to validate the claim”.
- e) In case the person has “the right to use the land in which the person who has occupied and used the land has also protected, developed, and used the land belonging to other persons with all sincerity, peacefully, openly, and continuously for more than 20 years”.
- f) In case the land user can produce a “temporary land use certificate” issued under the national land use planning/land allocation programme and has developed and used the land continuously.

In order to be considered for registration and titling any “private” land parcel must fulfil the following conditions:

- Land must be continuously and permanently used **for at least three years**; this is for example applicable for paddy fields, gardens, orchards, small tree plantations, fishponds etc.; this excludes upland (swidden) rice or maize fields from registration as “private” land. Undeveloped agricultural land of any kind cannot be registered and titled.
- All residential lands must have access to a road either by permanent access or passage way (easement); residential land can be considered for individual titles in case of existing buildings on the land, in case of houses/buildings under construction or vacant land if the rights of the land use can be confirmed under the conditions mentioned above.

The holder of land use rights have the following five rights:

- 1) Right to protect the land (this is the right to exclude others and to possess the land);
- 2) Right to use the land (this is the right to use land for certain purposes in order to provide for the needs of the land title holder);
- 3) Right of usufruct (this is the right to collect the usufruct or income from such land, such as from the lease of land, or from the use of land as a share contribution or guarantee);
- 4) Right to transfer the land use right (this is the right to transfer to other natural persons or juridical entities by sale, donation or exchange);
- 5) Right relating to inheritance of the land use right (this is the right to pass land use rights over developed land to one’s husband or wife, children, grandchildren, parents or close relatives upon the death of the holder of land use rights).

Land use rights as documented by a land title are permanent rights and can in accordance with the Law (Art.63) only be terminated in the following cases:

1. The land use rights are voluntarily relinquished;
2. The land is requisitioned by the State for public purposes;
3. Transfer to another person;
4. Death without any heir.

It is important to note that private or individual land titles can be issued:

- a) in the name of a woman alone (e.g. in case of inheritance from her parents or other relatives, or in case of single women);
- b) in the name of a man alone (e.g. in case of inheritance from his parents or other relatives, or in case of single men);
- c) in the name of a couple (husband's and wife's name on the title, e.g. when the land was jointly developed and cultivated, from land purchase or inheritance);
- d) in the name of several individuals as a joint possession in case of undivided land inherited from the parents or other relatives.

Nevertheless, the draft new Land Law (Art.43) specifies ceilings for land holdings, such as up to 1 ha per full-time family labour unit for rice land, including fish farming, up to 3 ha per full-time family labour unit for commercial annual crops and industrial crops and up to 2 ha per full-time family labour unit for orchards. Areas applicable for domestic businesses (private entities) are much larger (Art.44). In Art. 67 an area not exceeding eight hundred square meters per person in the family is given as the upper limit for construction land for residential purposes. Due to the generous ceilings specified for agricultural and residential land and the generally moderate average land holdings in rural areas, it is unlikely that land users will be denied the issuing of land titles for parts of their occupied and used land.

Land title holders of "private" land must receive compensation in money or in kind or both in accordance with the relevant legislation for any expropriation of the land in the public interest.

The land registered and titled in the name of legal entities are parcels used by organizations, businesses and companies registered and recognized by the State as a legal entity. In rural areas, titles in the name of legal entities will be an exception.

The various land use categories and the possible options for their registration are reflected in Annex 3.

The standard title document to be used for private/individual or land of juridical entities is shown in Annex 4.

7.2 Registration of Collective Land and Communal Land

For the first time, definitions included in the draft National Land Policy, in the draft revised Land Law and in the already approved Ministerial Directive No.6036 provide a clear differentiation between "collective land" on the one hand and "communal land" or "community land" on the other hand. In future, it will be important during the land registration activities to make a clear distinction between collective and communal land areas in the villages. Furthermore, there are differing rights attached to collective and communal land titles.

Collective Land (*din luam mu*)

Collective land is defined as the land of cooperatives, registered production and interest groups or associations. Joint land use rights can be issued for these dedicated groups and organisations. This means that collective land can only be held by purpose-oriented cooperatives, groups or associations which have registered members. The land title is registered in the name of the cooperative, group or association which represents its members. In order to get their share in the right to use the collective land, persons must become members e.g. in the cooperative, group or association.

Since the “Instruction on the Use of New Formats of Land Titles and New Registration Book” (No.12/NLMA, 2010) was issued, an approved title format exists for collective land parcels. In the past, this title has wrongfully been applied for a few communal land areas, sometimes with a manual amendment of the title heading on the document.

Collective land parcels are relatively rare, but can play an important role e.g. in Houaphan Province and other parts of the country where production cooperatives hold rice land or construction land (e.g. for storage).

The holders of collective land use rights have the following five rights:

1. the right to protect the land
2. the right to use the land
3. the right of usufruct
4. the right to transfer the land use right (this is the right to transfer to other natural persons or juridical entities by sale, donation or exchange); therefore collective land can also be mortgaged and leased to individuals or to registered enterprises
5. the right to inheritance of the land use right

Same as for “private” titles, holders of collective titles have the right to receive compensation in the case of expropriation for public purposes (e.g. roads, schools, hospitals, public parks, electricity masts, telephone cables, drainages, irrigation channels).

Collective land titles can be issued for various land use categories (see Annex 3). For collective agricultural land use the draft new Land Law proposes much higher ceilings, e.g. up to 12 ha for rice cultivation, up to 12 ha for animal husbandry, up to 17 ha for industrial crops or fruit tree plantations or up to 40 ha for industrial tree crops. In addition, collective enterprises, groups or associations can apply for lease or concession of state land.

Communal Land (*din xoum xon*)

The term “communal land” is often applied in the context of “traditional” (Ministerial Directive No. 6036) or “customary” (new Land Law) land use rights by entire communities. Communal land is the land which is jointly used by all villagers of any ethnic group such as village ponds, village use forest lands, spiritual or cemetery forests. The most important criteria here is that any person by being a resident in the village automatically becomes a member of the community and can therefore use communal land. The holders of communal land use rights have the following four rights:

- 1) Right to protect the land
- 2) Right to use the land
- 3) Right of usufruct
- 4) Right of inheritance

Communal land use rights cannot be transferred (e.g. sold or donated to some other community), cannot be leased or given for a concession and cannot be passed on through inheritance. Communal land titles cannot be used for mortgage. Communal land areas remain the common land resources of the village community and anybody born into this community acquires rights to use this land.

Villages are according to the Law on the Local Administration of the Lao PDR, No.47/NA, 2003, the lowest administrative unit and form part of the state organization in Lao PDR. As such, villages are eligible to hold communal tenure. Communal titles can therefore be issued in the name of the village, but also jointly in the name of several villages, e.g. in case of shared communal land areas for several communities. In Xieng Khouang and some other provinces, village communities consist of several hamlets (*khoum*) sometimes at some distance from each other. In these particular cases, communal land titles could also be issued in the name of the hamlet, which has a separate hamlet administration. Communal titles can be issued in the name of ethnic groups in general or their associations (as per MD No. 6036/MoNRE), but should ideally be in the name of one ethnic village, a hamlet or several villages together.

The main objective of registering and titling communal land is to provide the community with the legal protection to be able to continue using land resources peacefully as a community in accordance with their customary practices and to protect and develop the land according to local priorities. Formal recognition of communal land use rights can promote better, and more sustainable land use and reduces disputes with neighbouring villages or external investors. Nevertheless, within the land areas to be registered as communal land, there are two sub-categories and this subdivision must be clearly shown on the new communal title document. The first sub-category is unchangeable (fixed) and perpetual communal land, while the second sub-category is communal land which might be changeable and can be allocated to families in future, if the community opts for this change of tenure.

In the first sub-category there are several types of communal land areas which have been protected over generations and should be maintained as indivisible parcels to be managed in common interest of the community. This would be the spiritual or cemetery forest, areas where rituals are held, local temples, a communal pond or wetland, the village use forest or village office or meeting hall. Under no circumstances can these areas be allocated to individual families for use or development.

In the second sub-category there are communal land areas, which are currently managed by the community in the interest of all villagers, but in which future private and family-based land development could be permitted, if the village administration and the entire community decide in favour of this “individualization” of land use practices. This sub-category could include livestock grazing areas, which are currently managed by the entire community, but which could in future be separated into several livestock husbandry plots for families. Equally, this sub-category includes communal tree plantations which in future could be allocated to families for management and harvesting. Finally, upland agricultural zones of which parts could be allocated to families for permanent cropping, establishment of plantations or gardens which would then be exclusively used by one family would also fall into this sub-category. After development of permanent agricultural use over a period of at least 3 years, these parcels could qualify for individual registration and titling if this land was officially allocated by the village authorities and is approved by the community.

Under the SUFORD-SU Programme new guidelines are developed (draft of March 2015) to describe a process of registration and communal land titling of village use forests located in national production forest areas (NPFA). Under these draft guidelines the importance of PLUP and the implementation of the surveying and demarcation of village use forests in NPFA is emphasized once again. Once the communal land title for the village use forest area has been issued, the land shall be used jointly by the villagers in accordance with the village forestry management agreement and village forestry management plan. Nevertheless, the registration of village use forests in NPFAs in isolation should be an exception and should rather be combined with a systematic land registration approach described in this document.

Ideally all communal land areas should have a management plan with simple rules and regulations. At present in Lao PDR, this is mostly restricted to areas with interventions by donor- or NGO-funded projects. In areas with projects supporting village forest management, village forest management plans (VFMP) have been elaborated in selected villages. More often, simple village regulations (*lebeab baan*) or forest and agricultural land regulations are established during the PLUP process. Ideally, these should be based on existing traditional rules and regulations which exist in many villages, but are often not sufficiently documented. In any case, either an existing management plan or the village regulations or any other existing rules and regulations concerning the communal land need to be attached with the communal title document when the title is issued. In case no management plan or any regulations exist for the communal land, simple “use regulations” need to be specified under Point 3 in the proposed communal land title document (see Annex 5). These need to be established during the adjudication process for the respective communal land parcel.

Land use practices change over time and farmers must be in a position to react to new opportunities and developments. In other words, for communal land areas, which are currently used according to the customs and traditions and which hold a potential to be developed for more permanent and more commercially oriented agricultural practices, this opportunity must not be excluded. Examples and lessons learnt from Cambodia on communal land registration have shown that communities must be given the chance to adapt to a changing environment and modify their traditional practices if the need arises and if the majority of the community members agree. Although common livestock grazing zones or upland agricultural zones form part of the communal land tenure resources today, this could change over time and this must be taken into consideration during the land registration work.

At present, there is no agreed standardized procedure for the registration and adjudication of communal land areas in Lao PDR². There is not even an approved title format for communal land yet. This document provides a proposal on how to put into practice communal land registration as part of the comprehensive approach for rural areas and how to implement the Ministerial Directive No.6036. A proposal for the main contents and design of a communal title document can be found in Annex 5.

Annex 3 provides a comprehensive overview on which land use categories can be registered and titled as communal land. Experiences from Houaphan (see Chapter 6) have shown that rural villages on average have 9 communal parcels with an average total area of 640 ha. In general,

² The classification and registration procedures for communal as described in this document still need to be considered as proposals and will require further discussion and eventually decision making.

communal parcels are relatively large, often more difficult to access and are commonly delineated by natural features such as streams, rivers, mountain ridges or footpaths. Communally held land often represents the major part of productive land in rural areas.

Pagodas or temples should only be registered and titled as communal land if they are entirely built and exclusively used by the community itself. In all other cases, these cultural sites should be registered as state land under the Ministry of Information, Culture and Tourism.

In remote rural villages, residential land has a relatively low value and is normally not sold. Furthermore, residential plots are sometimes very small and located very close to each other, in particular in ethnic minority villages. For this reason villagers should be provided with two options: either they register their residential land as individual land and receive family titles, or the entire residential area of the village is comprised in one communal title. Obviously, this land can then not be transacted (e.g. sold) or mortgaged. The decision on which option to choose should be taken by the entire community (representatives of all families living permanently in the village) in a village meeting and must be unanimous.

As valid for all land areas, the state can expropriate communal land in the public interest, e.g. for a public development project (road, communication lines, school). In case of expropriation, the community is entitled to compensation payments or exchange land in accordance with the relevant regulations. Yet, communal land cannot be expropriated for the purpose of giving the land as a lease or concession to a private company or joint venture.

In case individual parcels (fenced plantations, gardens, individual livestock plots) have already been developed in a larger communal area, such as an upland agricultural zone, a larger livestock area or even a village use forest, these can be registered in the name of the families and individuals and a “private” title can be issued, provided the use of the land is permanent and older than three years. The same is possible, in case a family can produce a “Temporary Land Use Certificate” dating back to the land allocation programme for a parcel in a communal area and which has been developed accordingly.

In rural areas of Lao PDR, villagers very often use land outside their administrative village boundaries. In case outsiders have a traditional right to use a communal area in a village where land registration takes place, this must be identified and recognised during the adjudication process. In such cases, either the customary rights by villagers from neighbouring villages are registered as an encumbrance on the land and marked on the title document (see proposed communal title document in Annex 5). Or, if the communal area is really shared in more or less equal terms, the communal land can be registered in the name of both or several villages at the same time. In this case the names of two or several villages needs to be marked on the communal title document.

Villagers leaving a village on a permanent basis lose their rights to communal land held by the village, while new settlers acquire these rights from the moment they permanently settle in the village and are included in the village demographic statistics. In case of relocation of the entire village with all its villagers, the community loses its rights to the communal land areas, same as in the case of expropriation and are consequently entitled to compensation. In the case of merging two or several villages into one, the combined village will possess all communal land areas registered in the name of the merged villages.

7.3 Registration of State Land

In the draft new Land Law it is stated that: “State land is the territory of the Lao PDR, excluding lands for which use rights (titles) have been granted by the state to individuals, juridical entities, collectives, and communities where people hold customary rights as duly certified by the state”. The holder of land use rights of state land has the rights to protect, use, usufruct, and right relating to inheritance of the land use right but has no rights to transfer the land use rights, except state-owned enterprises. The practice of privatizing state land for eligible government staff, veterans and revolutionaries should be discontinued.

State land in rural areas mainly consists of the following land use categories: land for national defence and security, roads including their buffers, larger waterbodies and streams including their buffers, reserved land for investments, protected areas, conservation forests and protection forest. Even if they are classified in the land use plan as “village conservation or village protection forest” these protected forest areas are classified as state land. The same is true for all types of production forests (*pa palit*), with the exception of the village use forest (*pa somsai*) which is classified as communal land. Areas designated in the land use plan as “zones reserved for future investments” should equally be registered as state land.

In addition to these larger plots, state land in or near the village can be police stations, schools, health centres or hospitals, communication land, tourism sites or major pagodas and cultural sites.

State land is in principle registered in the name of “the Government of Lao PDR”, but the title could also be issued in the name of the responsible Ministry, the Party, State Organisation or state-owned enterprise (which is the only state organisation entitled to transfer land!). When state-owned enterprises wish to turn land into capital by buying-selling, exchange, transfer, lease or concession, use of land as a share contribution or guarantee they need to obtain official approval from MoNRE or PONRE as specified in the law.

In case villagers have proven utilization rights to state land areas, such as e.g. customary rights for NTFP collection in “controlled use zones” within conservation or protection forest areas (see Forestry Law, 2007) or limited utilization rights in production forests in line with agreed forest management plans, these rights must be registered as an encumbrance on the state land.

Under normal circumstances, state land parcels are registered, but state land titles are not issued and handed over to a public administration unit, except on request. In urban areas, this aspect is treated differently, as state land parcels in urban areas are considered an important asset of the state and play a crucial role for urban development planning.

In recent instructions by the Lao Government the registration of state land has been made a pre-condition for the conclusion of any new state land lease and concession agreements in future. Furthermore, existing land concessions are to be registered according to their exact boundaries as state land parcels. These decisions underline once again that leases and concessions can only concern state and not communal land parcels.

7.4 Land Title Documents for the various Land Tenure Categories

NLMA has issued three types of land title documents in 2010. The same title formats are still in use. These are:

1. individual title (also used for juridical entities) (*bai ta din buk kon, niti buk kon*)
2. collective title (*bai ta din luam mu*)
3. state land title (*bai ta din lat*).

The formats of these three titles are shown in Annex 4.

In addition, a proposal for a new title format for communal land (*bai ta din xoum xon*) is presented in Annex 5.

8. Work Organisation, Workflow and Responsibilities of SLR Teams

The overall process of land registration and titling can be sub-divided into the following key working steps:

1. Preparation
2. Communication for Systematic Land Registration and Titling (CSLT)
3. Implementation of surveying and adjudication activities
4. Data entry in cadastral database
5. Conclusion of land use rights
6. Public display
7. Verification and issuing of land titles
8. Monitoring and quality control

The Overall Workflow for Systematic Land Registration and Titling in Rural Areas

	Responsibilities	Time
<p style="text-align: center;">Phase 1: Preparation</p> <p>Selection of SLR team Preparatory training of SLR team Assessment of existing approved land use plans and remote sensing material Preparation of (cadastral) base maps Preparation and approval of an annual workplan Preparation of the required equipment (surveying equipment, laptop etc.) and materials (land use plan, base map, adjudication forms, information materials etc.) Check of geodetic monument points and assessment of need for densification Notification of villages</p>	<p>SLR team DONRE, PONRE, DoLA, NGD (for base maps and control points)</p>	<p>1 -3 months</p>
<p style="text-align: center;">Phase 2: Communication for Systematic Land Registration and Titling (CSLT)</p> <p>Preparation of CSLT Toolbox, materials and equipment (e.g. LCD) Village authority training General CSLT session in the village CSLT specifically for women Sub-CSLT on practical preparation for surveying and adjudication</p>	<p>SLR Team, PONRE, District Authorities, DONRE, DPWTO, DAFO, DLWU</p>	<p>8 days</p>
<p style="text-align: center;">Phase 3: Implementation of surveying and adjudication activities</p> <p>Filling of applications for registration of individual land parcels Delineation of individual, collective, communal and state land parcels Adjudication of individual, collective, communal and state land parcels</p>	<p>SLR Team Village Authorities</p>	<p>20 - 40 days, depending on number of parcels and topography</p>
<p style="text-align: center;">Phase 4: Data entry in cadastral database</p> <p>Quality check and data entry into Lao LandReg Establishment of land files (can be done either on a laptop during the stay in the village or by other DONRE staff (central unit) after the return of the field team!) Printing of forms and signing of forms</p>	<p>SLR Team or Central Unit</p>	<p>10 - 20 days</p>
<p style="text-align: center;">Phase 5: Conclusion of land use rights</p> <p>Preparation of land files for consideration by conclusion committee Meetings of conclusion committee (on average 2 per month) Communication of results and follow-up on complaints, grievances and conflicts</p>	<p>District Conclusion Team, DONRE</p>	<p>1 – 2 months (2 sessions per month, on average 80 land files per session)</p>
<p style="text-align: center;">Phase 6: Public display</p> <p>Display of extract of land files Display of cadastral index map (print from GIS)</p>	<p>SLR Team Leader or Representative of DONRE</p>	<p>30 days</p>
<p style="text-align: center;">Phase 7: Verification and issuing of land titles</p> <p>Dealing with complaints from public display Printing of titles Final verification (PONRE) Signing of titles (PONRE) Distribution of titles</p>	<p>DONRE, SLR Team PONRE for final verification and signing</p>	<p>1 month</p>
<p style="text-align: center;">Phase 8: Monitoring and quality control</p> <p>Control of surveying quality Control of adjudication quality and consistency of data Monitoring of title output and implementation of annual workplan Monitoring of performance standards</p>	<p>PONRE DoLA (National Coordination Team)</p>	

8.1 Phase 1: Preparation

Preparation of field work

The initial preparation starts with the formation of the SLR teams at district level. The preparatory training of the team members will follow, covering the legal framework for land registration, communication strategies, participatory working methods, basic interpretation of remote sensing materials, surveying techniques, adjudication activities and data management (see sub-chapters below). Then the team conducts an inventory of the available land use plans for villages in the district, possibly with assistance from PONRE. The quality of the land use plans needs to be assessed in line with the criteria provided in Chapter 5.

Based on the availability of the land use plans, the team needs to order base maps for the future working areas. Base maps in rural areas can consist of ortho-photo plans ordered through PONRE and DoLA from the National Geographic Department (NGD). These plans consist of rectified and geo-referenced aerial photos of the areas and include important data, such as the shapefiles on administrative boundaries (province and district boundaries), the road corridors with their buffers, rivers and streams with their buffers and possibly a topographic elevation model. The exact administrative boundaries of the villages will be added based on the land use plans.

The ortho-photo plans would generally have a scale of 1: 15.000 up to 1: 20.000. In the absence of any ortho-photo plans, the SLR teams can also request the preparation of satellite image printouts, which are often used for land use planning purposes. Although satellite images will not be entirely true to scale, recent images can provide a good information base, particularly for larger land parcels. High resolution satellite images are nowadays widely available for Lao PDR through purchases and processing by donor-funded projects or can be accessed from geoportals, like Bing maps or Google maps. For any selected working area, the SLR team should take at least the up-to-date land use plan and one map/photo based on remote sensing techniques with them to the field.

In addition to the base maps, the SLR Team also needs to prepare the required equipment and other materials. A list of the standard set of equipment is provided in Chapter 8.3 below. Furthermore, the team needs to prepare all information materials and handouts for the communication events (CSLT; see Chapter 8.2) and a sufficient number of adjudication forms of the various land categories (see Chapter 8.3).

Preparatory training of SLR Team

DONRE technical staff and in particular members of the SLR team require training inputs on the following subjects:

1. the legal framework for land registration,
2. participatory working methods,
3. communication strategies and Communication for Systematic Land Titling (CSLT),
4. surveying techniques, software and data management including training on interpretation of remote sensing material
5. adjudication activities

It makes sense to combine the first three topics (1-3) in one separate training course. The target participants for this course would be DONRE and District LWU staff. It makes sense to combine at least 2 districts for the training with a maximum number of participants of 15 to 20. The training would require at least 4 days. This first training could be conducted by specialists either from DoLA (Division of Legislation and Conflict Resolution or Division of Land Registration), LWU Headquarters or CLE (Clinical Legal Education group from the Faculty of Law) or a combination of trainers from these institutions.

The training on utilisation of remote sensing materials would specifically address the SLR Team members and should be conducted in a smaller group of not more than 10 people in order to allow participants to interpret aerial photos and satellite images. Two SLR teams could be trained together in one training course. This training could be provided by NGD staff, experienced staff from DoLA or external specialists, and would take 1-2 days. In addition, selected PONRE staff will require basic GIS skills for digital data processing and database handling.

The training on surveying techniques, equipment and software will focus on the technical aspects of surveying land parcels. Due to the need for practical exercises on the surveying equipment the number of participant should be limited to a total of 10 people, primarily 2 SLR teams and surveyors from PONRE. The training would require a total of 5 days and would consist of theory and practice. Training on surveying techniques would be provided by the Division of Cadastral Survey in DoLA.

Finally the SLR teams require detailed knowledge about the adjudication for individual, collective, communal and state land and the filling of the required forms. This includes data entry into the Lao LandReg and the establishment of land files. For this training up to 2 SLR teams could be combined with administrative staff from the central unit of DONRE and the training would require approximately 5 days. The training could be provided by the Division of Land Registration and Valuation and/or the Division of Land Records and Information of DoLA.

Within the SLR team, normally at least 2 members will focus on the adjudication work (adjudicators), while the other members will concentrate on the surveying work (surveyors). Nevertheless, all team members should acquire a basic understanding of all working steps of SLR and all the required activities in order to assist each other in the case of need.

In case of limited previous experiences of the SLR team members, it could be advisable to place a master trainer from DoLA or PONRE for on-the-job coaching for a period of at least 2 weeks with the team in the field.

Over time there will be a need to conduct refresher courses for the SLR teams and sessions for the exchange of experience.

Details for the required training courses, including topics/contents, trainers, methodology and approximate costs are presented in Annex 6.

Preparation of annual workplan

Once the team has been trained, prepared itself through the evaluation of land use plans and remote sensing materials, the SLR team must prepare a workplan for the year. In this plan, they submit a proposal for the sequencing of work in the villages which can be located in one or several clusters. When preparing the plan it is important to take into consideration the climatic

seasons. For example, easily accessible villages should be given priority during the rainy season, while remote villages can be handled only in the dry season. As a general rule a district SLR team should aim at working in between 5 and 7 villages per year, which according to current experiences would be an achievable and realistic target.

Once the workplan is approved by DONRE, the team must proceed with notifying the selected villages. In accordance with Ministerial Directive No. 6036, this general notification must be issued at least 30 days before the start of land registration and land titling. The notification then needs to be communicated via the local media at least on three consecutive days before the start of activities in the target villages.

8.2 Phase 2: Communication for Systematic Land Registration and Titling (CSLT)

Once all required equipment and materials have been provided, the SLR team together with the responsible coordinators at PONRE or DONRE and in the presence of the District Governor will conduct the initial general village information meeting. This is the official kick-off to the implementation of registration activities in the village.

For a period of approximately 4-5 days villagers are informed about systematic land registration, made aware of their rights and the overall procedures. Furthermore these Communication for Systematic Land Registration and Titling (CSLT) activities also serve to motivate and mobilize villagers to actively take part in the land registration activities.

Awareness creation and information of villagers on legal rights with regards to land use are an important step in the process of systematic land registration and titling. Several campaigns on legal education for villagers residing in rural areas have been undertaken in the past by the Clinical Legal Education (CLE) programme conducted by the Faculty of Law, by NU-IRDP radio and video campaigns, by the Land Issues Working Group (LIWG) and DoLA/MoNRE. It would be ideal to coordinate some of these legal awareness and education campaigns with the approach to SLR in rural districts.

Rural communities are the target audiences for CSLT. Land rights are mostly a new, but very relevant topic for them. Their understanding and full participation in the land registration process is crucial to particularly foster their understanding on their current and future rights and the significant link to their livelihoods.

The main objectives of CSLT are:

- To create awareness and understanding of people and the local authorities on the land related legal framework e.g. policies, laws, decrees and regulations
- To promote understanding of local authorities, organizations and the public on the land use planning process, land titling, land rights and obligations of landholders
- To foster involvement of related local authorities, organizations, and the public in the land use planning and land registration processes
- To make people aware of their land tenure rights, land values, and effective ways to improve their land-based livelihoods

- To inform villagers and local authorities about the differences between individual, collective, communal and state land parcels

There is a diversity of communication methods that can be used to inform villagers and make them actively participate, for example role plays, billboards, videos, presentations, posters, books, brochures, campaigns, television, radio, quizzes. When choosing a method or technique of communication, it is important to consider who is the target audience, what is the correct timing and to choose the optimal location. The target audiences in rural areas of Lao PDR will vary in terms of ethnicity, language, age, sex and social status/hierarchy. By considering these aspects, the CSLT team can ensure that appropriate methods are used to achieve the ultimate goals of CSLT to promote people's awareness of the importance of land titling and their participation in systematic land registration process.

Major steps of CSLT at village or village cluster level are:

1. Preparation and appointments for CSLT sessions at village level
2. Village Authority Training
3. CSLT sessions at the village for the whole village
4. CSLT session specifically for women
5. Sub-CSLT on practical preparation for surveying and adjudication

It is crucial to involve the village authorities (village chief, the deputy, the village administrative committee) right from the beginning of the SLR process and to get their full support for all working steps. In order to achieve this, village authorities have to acquire a full understanding of the process and its outputs. This understanding is created in a 2 day village authority training which must be conducted before the start of the other CSLT activities in the village.

After sending out the notification letter requesting a meeting in the village, it is also desirable to organize a small meeting with village authorities including village head to confirm the sequence of SLRT activities that will take place in a later stage. During this one-hour meeting the CSLT team should explain the purpose of the project and make sure that the objectives of CSLT session are well understood by village authorities before the actual village CSLT sessions will take place.

At this time, the SLR team will also collect some basic data and information about:

- Village population size and composition and the number of households,
- Ethnicities and languages spoken to seek if bilingual sessions are needed for CSLT,
- Based on the land use plan, confirm with village authorities the approximate number of land parcels, the various land types privately used or occupied (e.g. paddy, plantations, ponds,...), and average parcel size in the village with regard to residential land, collective or communal land and what could be defined as state land.

Subsequent to this, the general village CSLT is conducted with participation from all resident households, men and women, without forgetting villagers living in separate hamlets or a bit isolated from the main village. After the general village meeting, it is crucial to organise a separate session for the women only, as women tend to show less active participation in general village meetings and are often too shy to ask questions in public.

The CSLT activities in the village are coordinated by DONRE and the SLR team, but the trained representative of the District Lao Women's Union will be crucial trainers and facilitators of the CSLT sessions, in particular the separate meeting for women. A representative of the District

Public Works and Transport office should also participate in the general CSLT session in order to inform about road access, access to residential plots and setbacks from the road.

The sub-CSLT work is conducted just prior to the start of the surveying and adjudication activities in the village. It mainly consists of a reminder on CSLT and instructions for the practical working steps to follow. This sub-CSLT work is done for each village unit or agricultural land cluster. After the sub-CSLT, village units and farmers in the agricultural clusters will start the demarcation of their plot boundaries, sort out minor land conflicts and clarify accesses.

A more detailed description of the various elements in the CSLT work is shown in Annexes 7 and 8. Once the CSLT activities are complete, the implementation of the survey and adjudication work should start without any delays.

8.3 Phase 3: Implementation of Surveying and Adjudication Activities

Cadastral Surveying and Cadastral Mapping

In August 2014, MoNRE has revised the technical procedures for cadastral surveying and cadastral mapping by issuing the Ministerial Directive No. 6035. The directive expressively aims at uniform and standardized procedures for countrywide implementation.

The Ministerial Directive contains a number of new elements which are of great importance:

- Tolerances and required accuracy levels for surveying are clearly defined for the first time
- For remote rural areas, it allows for the use of land parcel boundary markers made from hard wood (or locally available material)
- An entirely digital work process is described as one acceptable option, including digital survey methods, data entry into a digital land registration database combined with GIS function for the cadastre (Lao LandReg) and digital cadastral maps at 1:4000 scale
- The need for decentralization of surveying activities is clearly supported in the chapters on roles and responsibilities

Surveying must be imperatively conducted by trained members of the SLR teams, while villagers can assist in the field. During the piloting activities supported under the Lao-German Cooperation Programmes (see Chapter 6) several surveying techniques and various types of equipment were tested.

The selection of the appropriate surveying equipment was done based on the following criteria:

- Accuracy requirements in accordance with the land use category
- Enabling a fast, output oriented survey
- Digitization of survey procedures/processes
- Level of skills needed to apply the technology
- Density of Lao PDR's existing geodetic reference network

The following table summarizes the optimal survey techniques and provides the required accuracy levels and mapping scales as defined in the Ministerial Directive No.6035.

Table 7 Recommended survey equipment, scales and accuracy levels for different land use categories

Main Land Use	Sub Categories	Map Scale	Accuracy (m) "on-point"	Survey procedure	Boundary Marking	Proposed Survey Technology
1. Construction Land	1.1 Built Up	1:200 to 1:1000	+/-0.15	Survey all boundary points of a land plot on the spot	Official boundary markers on site are required	GNSS/RTK (e.g. CHC X91+) GNSS/Starfire combined with Total Station Total station standalone Tape survey from GNSS control points
2. Agricultural Land	2.1 Paddy/ Perm. Cropping/ Aquaculture/ Low size Perennial Crops	1:1,000 to 1:4,000	+/- 0.5		Wooden boundary markers are required	GNSS/RTK (e.g. CHC X91+) GNSS/Starfire GNSS
	2.2 Perennial crops/ Plantations/ Fruit tree Orchard	1:1,000 to 1:5,000	+/- 5		Wooden boundary markers are required	GNSS/RTK (e.g. CHC X91+) GNSS/Starfire GNSS Handheld GPS
	2.3 Upland rotational system (Cropping and fallow area)	1:10,000 to 1:50,000	+/- 5	Survey on the ground or alternatively boundary delineation by Ortho-photo Adjudication Explanation: Village based boundary delineation of big parcels by using topographical boundary descriptors as boundary markers and identifying and digitizing them on a GIS based digital base map. The boundary descriptors can be linear natural topographical features (e.g. rivers or rivulets) or men-made features (e.g. roads, canals, fence) and single natural (e.g. peaks, rocks, pinnacles) or men-made topographical elements (e.g. electricity pylon, building)	Boundary marker are not compulsory	Ortho-photo Adjudication GNSS/Starfire GNSS Handheld GPS
	2.4 Livestock (Open Pasture/ Unstocked Forest)	1:20,000 to 1:50,000	+/- 5		Survey on the ground: Durable natural and men-made elements can be used as boundary markers or marking with permanent paint	
3. Cultural Land Forest	3.1 Sacred Forest/ Cemetery Forest	1:1,000 to 1: 5,000	+/- 5	Ortho-photo Adjudication: Coordinates from digital point layer on top of identified topographical elements determines the boundary corner		
4. Communal Forest	4.1 Village Managed Forest	1:10,000 to 1:50,000	+/- 5			
5. State Forest	5.1 Production forest	1:50,000 to 1:200,000	+/- 5			
	5.2 Protection forest	1:10,000 to 1:500,000	+/- 5			
	5.3 Conservation forest	1:10,000 to 1:1,000,000	+/- 5			

Accordingly, each SLR team should have a standard set consisting of the following surveying equipment and support items:

- 1 Total Station with interface to DPT or 1 RTK set per district (only one per district!)
- 1 SF 30-40/Starfire including a field computer (for example ALGIZ 7) with DPT (for example GIS 360)
- 3 additional prism poles (together with TS)
- 2 additional prisms (together with TS)
- 1 handheld GPS
- 1 steel tape and 3 spiders (spiders only with TS)
- 2 laptops
- Walky talky (with TS)
- and 1 digital camera

The exact composition of required surveying equipment can vary. In Annex 9, three options are presented for possible combinations of surveying equipment at district level and the corresponding costs are compared. Furthermore, productivity indicators for the main types of surveying equipment are also presented in Annex 9.

It is important to note that manuals on “Land Surveying using Starfire and Total Station” and the “Workflow of Total Station with a DPT GIS360” are available in Lao language for training and field guide purposes.

The satellite based systems can be either used to establish ground control points for a survey with conventional surveying instruments like total station or tachometer or for boundary points which are captured straight with a satellite based survey system. The satellite based systems have their limitation as satellite signals are not necessarily available at every boundary point, depending on the topography and vegetation cover, although the latest Chinese RTK system has proven to be convincing in difficult terrain.

Individual (private) land: for residential areas, paddy fields, smaller perennial crop areas such as gardens or fields and fishponds, where high accuracy of surveying is required, the digital GPS system GNSS Starfire receiver with Digital Plane Table (DPT) and the total station will be used. On the other hand, investment costs for these types of equipment are relatively high.

The Starfire receiver in combination with the DPT is a good compromise between accuracy (± 10 cm) and productivity, allows on site digital cadastral mapping with real time positional correction, is easy to handle for non-professional surveyors and has a very high proven productivity with an output of up to 40 parcels/day, if used with full capacity and under ideal conditions.

On the other hand, the total station is best suited for areas without satellite signal due to tree cover or interference of high buildings in urban areas. Yet, as a stand-alone equipment the total station will produce only surveying points and therefore needs to be combined with a DPT.

The Digital Plane Table - DPT (GIS 360) is a core tool for the approach of SLR as it enables the surveyor to digitize and edit the cadastral data straight in the field and has numerous other important features (see Annex 9 for details).

Official boundary markers are recommended for use in the more accessible villages and for “private” land only.

Collective, communal and state land: there are two types of collective, communal and state land a) the smaller plots such as built-up parcels (offices, halls) and b) the larger parcels such as jointly used agricultural land, spiritual or cemetery forests (communal), village use forests (communal), larger communal ponds etc.

The smaller plots (**less than 5 ha**) need to be surveyed to the same accuracy level as other construction land parcels by using DGPS Starfire or total station. All parcels **between 5 ha and 10 ha** should be surveyed by walking along the boundaries taking measurements with the most appropriate technical solutions available (e.g. Starfire, handheld GPS). Basically, the decision on the most suitable survey equipment depends on the land use zone and the required positional accuracy.

For all other larger communal parcels (**above 10 ha**), such as the livestock areas, upland agriculture zones or village use forests, the boundaries need to be established based on the land use plans and the ortho-photo maps, following the defined natural boundaries (rivers, streams, mountain ridges etc.). For these large parcels it would be too time consuming to walk around the entire area. The boundaries are established as precisely as possible on the satellite images or the new ortho-photos and are later digitized in the DONRE or PONRE office. Ideally, the ortho-photos will be combined with data from the digital elevation model. Ortho-photos and geographic coordinates generally provide a positional accuracy of +/-2m, which is within the required accuracy level defined for larger communal areas (+/- 5m). In the case of communal land parcels larger than 10 ha, the village population should be requested to place boundary markers made from hard wood, erect signboards or mark trees where possible. The standard concrete parcel boundary markers cannot be applied under such circumstances.

The same technique of identifying parcel boundaries based on ortho-photos, satellite images and digital elevation models should be applied in the case of large (larger than 10 ha) state land parcels. Only if all large parcels can be delineated directly from the ortho-photos, it is possible to register all parcels within the village boundaries in the realistic time frame of not more than 40 days and keep implementation costs at a reasonable level.

By using this technique, the SLR team will not spend more time registering the larger collective, communal or state land parcels (above 10 ha) compared to the small and medium sized parcels under the various tenure regimes.

In case any of the large communal or state land parcels saddle over an administrative boundary (e.g. village boundary or even district boundary), the overall area should be split according to the administrative boundary and separate titles should be issued for each parcel. This means that in no case any registered parcel should spread over two or more village boundaries! In the case of smaller private parcels (e.g. agricultural land) partly extending across the village boundary, it is advised to locally adapt the village boundary delineation.

In areas where large collective, communal or state land parcels border with private agricultural or residential land, the more accurate surveying of the private land will be used to establish the exact boundary and will prevail (see description of snapping of cadastral entries into the Lao LandReg on page 43 for details).

Digital records and digital Cadastre

The Ministerial Directive No.6035 of 2014 specifies that land files still need to be established as a hardcopy in order to have legal value. On the other hand, most other documents, such as images of land tax receipts, a Land Survey Certificate etc. can ideally better be stored digitally. Under the climatic conditions prevailing in Lao PDR, any hardcopy documents are at risk of rotting and theft, or forgery can be another problem. Yet, if the majority of required documents in the land registration process are only stored digitally this will have important implications for the size of data files and the required server size in order to allow for data exchange. Overall, the decision between a semi-digital and a fully digital system need to be assessed in terms of possible increase in efficiency, costs involved, aspects of data security etc.

It is suggested to conduct additional testing of a fully digital cadastre in Vientiane Capital. If these test show promising outcomes, legislation could be adapted to allow a fully digital system at least in the Capital City area.

A comparative description and assessment of a semi-digital versus a fully digital cadastre is presented in Annex 10.

Application for Land Registration

The request for land registration shall comprise of the following documents:

1. Certificate of acquisition of the land such as certificate of land allocation by the State; sale-purchase agreement; certificate of transfer or inheritance; land map and other relevant documents;
2. The land certificate in the case of agricultural land or forest land;
3. Receipts for land tax payment, land usage fee;
4. A copy of Identity Card, Family Book Registration or certificate of residence; for an entity, there must be a copy of business permission, enterprise registration and tax registration;
5. Other necessary documents.

Proposal for a revised Land Adjudication Procedure

Adjudication of individual (private) land: The currently applied adjudication procedures are fairly cumbersome and bureaucratic. Numerous forms need to be filled by the field staff. In this document a proposal is submitted on how to streamline the overall process in view of shortening the work period for SLR teams in the villages and improving overall efficiency. One important objective of this review is to reduce the number of forms and the necessary information to a minimum.

Recently, the main adjudication forms B1 and B2 have been revised. Only minor changes are foreseen for B1. The proposed changes to the adjudication form B2 for private land are presented in Annex 11³.

In practice, the identification of land occupation rights and adjudication of parcels is mostly conducted together with the village head, the land user and his/her family and the direct neighbours.

³ It must be noted that the revised forms only constitute proposals which still require final approval.

Adjudication of collective land: Collective land can only be adjudicated to officially recognised cooperatives, use or interest groups or associations. The title document is issued in the name of the collective organisation only, but during adjudication in the village, the SLR team must gain an understanding of this organisation, its members, its status and its structure as well as its official recognition. This information has to be entered into the new adjudication forms for collective land, which still needs to be developed. DoLA has for the meantime decided to make use of the standard B1 and B2 forms also for collective, communal and state land parcels, although this can only be a temporary solution.

Adjudication of communal land: All land areas used jointly by the entire village community can potentially be classified as communal land. The land use plan of the village can play an important role in the identification of communal plots. The SLR team then needs to confirm whether the particular land parcel would fall under the management responsibility of the entire village, several villages together or of a specific hamlet (*khoum*). During the adjudication work it is important to note whether outsiders from other villages also have use rights to the identified communal parcels.

Separate adjudication forms for communal land (which still need to be drafted) need to be filled by the SLR team to identify village representatives, villagers, and outsiders holding customary rights to the land as well as already defined land management rights and responsibilities.

Adjudication of state land: Once again separate and adapted adjudication forms for state land need to be prepared, reflecting the required data for state land parcels.

8.4 Phase 4: Data Entry and Data Management in the Lao LandReg Database System

Since 2009, a modern land registration database called Lao LandReg has been developed for DoLA with German assistance. Although the Lao LandReg still requires some minor further developments, it has been generally approved as the standard database for land registration and titling in the country.

The main characteristics of the Lao LandReg database application are:

- Tailored to the needs of the Lao Land Administration (e.g. land registration process as per MD 6036)
- Forms and title documents can be printed directly from the system
- Language: Lao and English
- User management is in place
- Can be run as stand-alone or inside a server network
- Connected to database (PostgreSQL/PostGIS)
- Makes use of open source GIS software (QGIS) – cost efficient and with available source code (no license fees)
- Can handle spatial and non-spatial data

- Data can be transferred from digital plane table to QGIS; plausibility checks can be conducted as the data (parcel and boundary points) can be directly imported into the database with a QGIS plugin
- Can be programmed for automatic backup and can import/export various formats, e.g. to import registered parcels from other previous systems
- Has extension potential (e.g. include subsequent land registration, land valuation, land taxation etc.)

With technical and capacity development support by the Lao-German development programmes, Lao LandReg has been systematically improved and complemented and has been introduced in all DONREs of the pilot districts, selected PONREs and at national level DoLA. At present, DoLA has introduced LaoLandreg to 23 districts in the country. A specialized German consulting firm was contracted to overview the technical development of the database application.

In several training courses conducted for MoNRE staff working at the different administrative levels, Lao LandReg has proven to be easy to understand and handle, even for staff with limited IT experience. Only the nationwide introduction of Lao LandReg will ensure a standardized approach to land registration and land data management.

Data entry into the Lao LandReg can either be done directly during the stay in the village on a laptop equipped with the required software or by DONRE staff (i.e. central unit) on the office PC after the return to the office.

Due to the limited availability of internet in rural districts of Lao PDR, the data exchange and updating between DONRE and PONRE will often rely on the burning of the registration and parcel data on DVDs at regular intervals. The DVDs then need to be transported or sent to PONRE.

On the other hand the internet coverage will continue to improve over time which will eventually allow for data exchange via a cloud service (e.g. dropbox, one drive or google drive) between DONRE and PONRE. All provincial capitals meanwhile have reliable internet connections, so that the data transfer between PONRE and DoLA at national level can be ensured by the establishment of servers at both ends. The LandReg format (a specific export – import file) only has a small size and can be uploaded even with a weak internet connection.

The overall vertical data compilation (district – province – national) could eventually follow these procedures:

- All relevant data is entered at DONRE level, forms and titles are printed by DONRE
- All digital cadastre data needs to be backed up on an external hard drive; for safety reasons the external hard drive needs to be stored in another location than the database
- PONRE receives updates from DONRE (mostly by DVDs, but increasingly via internet), to view the data, but not to modify the data
- PONRE is connected to DoLA by server connection
- Synchronization can be done whenever a network connection is available
- Analysis of possible replication (synchronization) strategies
- In one pilot province complete installation with replication DONRE → PONRE → DoLA

- Training on configuration and usage
- Roll out for LMDP supported provinces and then countrywide

The national level DoLA plays a key role when it comes to maintenance of the Lao LandReg database and training of staff which includes:

- Changes on the database scheme
- Testing of new releases
- Delivery to PoNRE
- Support/Training for PoNRE

The responsibility for printing of the final cadastral index map sheets is not yet clarified entirely. A cadastral map sheet for public display is needed at district level. At present the prescribed format is A1. The printing in the format A 1 requires a plotter which is a very expensive procurement item (around 50,000,000 LAK) and private printers are generally only available in urban centres, such as provincial capitals or major district towns. Therefore a change in format requirement to A3 format could be considered or the outsourcing of the printing to printing shops, where available.

The Lao LandReg combines a database application with a GIS software (QGIS) for the following purposes:

- Topological error checks,
- Additional checks (Database manager),
- Permanent views for cadastral data
- Progress monitoring,
- A1 form printing,
- Cadastral Index Map preparation and printing
- Export to the database
- Maintenance and update of administrative entities through QGIS

The use of QGIS software provides the following key advantages:

- QGIS is open source software – this means software is cost free (compared to ArcGIS)
- QGIS is fully compatible with the Lao LandReg Data Base System (not the case for ArcGIS)
- Extensions are made easy through plugins (eg. LaoDim)
- High potential for cadastral construction (eg. Cad input)
- Strong support through local and global network (LaoGIS Forum)
- Does not require very sophisticated and powerful hardware

The data entry into the Lao LandReg database is also used to establish the required land files and the printing of all forms for the conclusion of the Land use rights and the public display.

In order to arrive at a seamless cadastre a harmonization of parcels from different land use zones and tenure systems needs to be undertaken in the office after initial data entry into Lao LandReg. Parcels from different land use zones are snapped by following a simple snapping order which is:

the boundary point surveyed with less accurate survey technology needs to be snapped to a boundary point of the parcel surveyed with the more accurate survey technology. Boundary points for larger communal or state land parcels which have been derived from topographical line elements detected with the help of high-resolution ortho-photos and Digital Terrain Models need to be integrated into the overall shapefile in the office.

Overall, the development of Lao LandReg represents a major milestone for land registration in Lao PDR. Neighbouring countries like Cambodia are now trying to follow this example. Technically, the Lao LandReg data management system is proven and reliable, but needs to be further developed to encompass all essential elements of land administration procedures in Lao PDR.

Eventually, all land registration data from all provinces in Lao PDR should be transferred and combined into the standard Lao LandReg system. This will require a substantial data transfer and entry effort with the required safety precautions, hardware provisions and operational budgets.

Annex 12 provides a detailed description of the Lao LandReg.

8.5 Phase 5: Conclusion of Land Use Rights

The complete land files are printed from the Lao LandReg system for submission and assessment by the conclusion committee at District level. The composition and tasks of the District Conclusion Committee are presented in Annex 2. In their bi-weekly meetings, the conclusion committee will review each land file and communicate the results of this assessment. In case the land use rights are not granted for any reason, this is communicated with the land user. The land user can then complain against the decision or submit any required missing information.

The conclusion committee also registers and follows up on complaints, grievances and conflicts.

On average, a conclusion committee should review approximately 80 land files per session or 160 per month in order to achieve the general intended output of land titles to be issued in one year.

8.6 Phase 6: Public Display

Extracts of the land files and the cadastral index map printed from QGIS need to be displayed for a period of 30 days in the village. Usually the display will be organised in a central and public location, such as the school, the community hall or the office of the head of the village.

During the public display period all villagers are requested to check the exposed list of land files and the corresponding map. Special attention needs to be given to illiterate villagers for whom village authorities or relatives need to read out the entry under their name.

All villagers have the right to complain about any incorrect data presented in the land files or the map and the obligation to notify about inconsistencies in the entries made (e.g. wrongly spelled names). All complaints need to be put in writing and submitted to DONRE.

8.7 Phase 7: Verification and Issuing of Land Titles

After the phase of public display, all complaints and corrections are to be reviewed by DONRE. DONRE needs to make sure that all corrections made based on complaints are submitted once again to the next session of the conclusion committee.

Once the final verification of all data in the land files and on the cadastral map is concluded, DONRE proceeds with the printing of the titles and forwards these to PONRE. After a final check, a representative of PONRE, usually the Deputy Director, will sign the land title documents.

In case this final quality check reveals any mistakes or inconsistencies, the land titles and the accompanying files are not signed and sent back to DONRE for further attention. Eventually, these cases have to be rectified and re-submitted to the conclusion committee.

Once all disputed or incorrect entries can be rectified and all titles are correctly signed, the title documents can be distributed against the payment of the title fees. Currently, this takes place in the DONRE offices. Ideally, and wherever this is possible, the signed title documents should be delivered to the village after previous announcement and fees should be charged directly in the village against receipts.

8.8 Phase 8: Monitoring and Evaluation, Quality Control

In terms of monitoring, evaluation and quality control the following elements can be distinguished:

1. Progress monitoring of SLR activities
2. Annual achievement monitoring
3. Technical quality control
4. Monitoring and evaluation of effects and impacts of SLR

Regular progress monitoring is essential in order to monitor work progress and achievements in relation to the planned activities as per annual workplan. Progress monitoring consists of comparing the actual output (e.g. in terms of parcels surveyed, villages covered) with the planned targets and timescales. Progress monitoring is the responsibility of the DONRE Coordinator for SLR and should be compiled monthly in a short report. These monthly reports need to be forwarded to PONRE. Once a year, the overall achievement is compared to the annual workplan and between districts and a new workplan is prepared for the following year.

In order to meet the overall quality requirements for the cadastre technical supervision and control is compulsory. One of the key principles of the land registration approach is: “the register/cadastre has adequate reliability - better than 98%”. Furthermore, the quality checks provide the necessary feedback on the SLR team’s performance and helps to identify the needs for refresher training courses. These quality assessments are conducted by PONRE.

A technical monitoring mission by PONRE, especially by the PONRE Coordinator for SLR, should initially take place at least once per month. With time and increasing experience levels of SLR teams the time intervals between such technical monitoring visits by PONRE can be decreased to once per quarter. Quality control will take approximately 2 days for checking the entered data in the Lao LandReg, the land files, the land adjudication forms, the surveying data and the land

register. Depending on the amount of land files that have been produced between two monitoring missions, the PoNRE monitoring team has to decide whether all new land files can be checked or a random sampling is the more appropriate method. Finally, the checks of the surveying results must also be done at village level where at least 3% of the parcels of different categories should be re-surveyed for quality control. A workflow for quality control and financial clearance by PoNRE is provided in Annex 16.

Periodically, the quality control and the checking of overall work progress needs to be carried out by DoLA’s Divisions of Land Registration and Valuation and Division of Land Records and Information. During these supervision missions, e.g. once per year, DoLA staff should also try to identify the main effects and impacts of land registration for inclusion in national reports. This will require conducting land user satisfaction surveys and impact assessments.

9. Cost Evaluation, Implementation Efficiency and Funding Mechanisms in the SLR Process

9.1 Fee Structure for Land Registration and Titling

The fees for surveying land and land registration are currently prescribed by Presidential Decree No.003/2012 on Service Charges, Fees and other Directions.

For first time registration, the fees consist of the surveying fees and the fees for the issuing of the title document:

Survey Fees for construction land

No	Survey zone	Service Fee Rate (LAK/m ²)		
		Urban	Peri-urban	Rural
1	Lowland	350	300	250
2	Plateau	300	250	200
3	Mountainous	200	150	100

Survey Fees for agriculture and forestry lands and for development projects such as hydropower, special and specific economic zones (casino), industry estate etc.

No	Survey zone	Service Fee Rate (LAK/ha)		
		Urban	Peri-urban	Rural
1	Lowland	300,000	250,000	230,000
2	Plateau	250,000	230,000	200,000
3	Mountainous	200,000	180,000	150,000

Fees for the Issuing of a Land Title

No.	Fees for First Time Land Registration	Fees per parcel, kip/Title	
		Urban and Peri-urban areas	Rural area
1	Systematic or Sporadic	LAK 30,000	LAK 15,000

An average family in a rural village will have one house plot and two to three agricultural plots to be surveyed and registered. A typical house plot will have a surface area of approximately 1,000 sqm. In addition, a normal household will have two agricultural plots, for example one paddy field of 4,000 sqm and a garden or pond of 1,000 sqm. For such an average household living in a mountainous rural area, the costs of land registration and titling can be estimated as follows:

Type of Fees	Type of Land	Area in sqm	Cost per sqm/title	Total in LAK
Survey fee	Construction land	1,000	100	100,000
Survey fee	Agricultural land	4,000	15	60,000
Survey fee	Agricultural land	1,000	15	15,000
Title fee	All 3 areas		15,000	45,000
TOTAL				220,000

Remark: 220,000 LAK corresponds to approximately 27.5 US\$ (1 US\$ = 8,000 LAK)

In this calculation it must be kept in mind that the example was elaborated for a household residing in a mountainous area. This represents the option with the lowest applicable fee rates, while for villages in plateau or lowland areas the cost of land registration and titling can easily double. The average annual income per person in Lao PDR was 1.130 US\$ (9,04 mil. LAK) in 2011. In rural areas the average household income is approximately 2 US\$ (16.000 LAK) per day. Based on this sample calculation an average rural household would have to spend their income for 2 weeks for a typical survey and title fee. This cost is too high and contradicts the principle of promoting first time registration among the population.

For these reasons, the pilot activities conducted under Lao-German development programmes in the past had received a special agreement to charge only 25% of the official survey fees. Later, this exemption rule was only applicable to poor villages. On the other hand, the Prime Ministerial Decree No. 285/PM of 13 October 2009 on Poverty Criteria and Development Criteria for the period 2010-2015 provides poverty criteria, which lead to the classification of many villages as “poor”.

According to the Presidential Decree No.003/2012: “survey fees are exempted for issuing land titles or State land survey certificates to state organizations, political organizations, mass organizations, government economic organizations and the people living in poor villages”.

Instead of a total exemption for “people living in poor village” it would be advisable to review the current fee structure and adapt it as closely as possible to the real situation prevailing in the rural areas and the actual income levels of the population.

The following revised fee system is proposed (all proposed changes are marked in red colour):

Survey Fees for construction land

No	Survey zone	Service Fee Rate (LAK/m ²)		
		Urban	Peri-urban	Rural
1	Lowland	500	350	100
2	Plateau	350	250	50
3	Mountainous	150	100	25

Survey Fees for agriculture and forestry lands

No	Survey zone	Service Fee Rate (LAK/ha)		
		Urban	Peri-urban	Rural
1	Lowland	500,000	350,000	150,000
2	Plateau	400,000	200,000	100,000
3	Mountainous	200,000	100,000	50,000

Survey Fees for development projects such as hydropower, special and specific economic zones (casino), industry estate etc.

No	Survey zone	Service Fee Rate (LAK/ha)		
		Urban	Peri-urban	Rural
1	Lowland	1,000,000	750,000	250,000
2	Plateau	750,000	500,000	200,000
3	Mountainous	500,000	250,000	150,000

Fees for the Issuing of a Land Title

No.	Fees for First Time Land Registration	Fees per parcel, kip/Title	
		Urban and Peri-urban areas	Rural area
1	Systematic or Sporadic	LAK 30,000	LAK 15,000

Depending on local regulations, issued by the District Administration, additional “admin fees” are charged for the land registration and issuing of titles. This can vary from one area to the other.

Boundary Markers

Boundary markers are a legal requirement, at least for construction land and smaller agricultural parcels. The current cost ceiling is stated as 15,000 LAK/marker for construction land, but this can increase to 20,000 LAK when delivered to the village. In rural areas, where concrete markers cannot be produced, it is encouraged to make use of hardwood poles, big stones or ideally bamboo poles filled with cement.

9.2 Implementation Efficiency and Outputs

Based on the piloting experiences in land registration in rural areas, it can be estimated that an average rural village will have a total of 250 – 300 parcels (individual, collective, communal and state). As mentioned in Chapter 8, the target for one SLR team would be to cover 5-7 villages per year. This would correspond to an output of between 1,250 and 2,100 parcels per year and team or approximately 8-10 parcels per working day. With an average of 250 to 300 parcels to be registered, this would require somewhere between 25 and 38 days of field work per village.

On the other hand, two SLR teams have only surveyed 4,400 parcels over a period of 3.5 years during the piloting work in Vieng Phou Kha which corresponds to only 625 parcels per year and team. Nevertheless, this overall time period also includes the phase of project set-up, training and preparation of SLR teams etc. From all these estimates of implementation targets and achievable outputs it can be deduced that the monitoring of the overall implementation efficiency will be crucial element for the success of SLR in rural areas. Efficiency of implementation will highly depend on staff availability for field work and staff motivation.

Two systems of payment of SLR Teams for land registration activities have so far been applied in the pilot projects: a) an output-based payment system and b) a system based on DSA payments, although this has been tested to a lesser degree.

In Vieng Phu Kha and Xienghone districts a performance based payment of LAK 40,000 per parcel and team was paid to each SLR team. On the one hand, this motivates SLR teams to achieve higher outputs, but also makes the surveying of small parcels particularly attractive. In extreme cases, it could encourage even the subdivision of larger parcels into smaller units. Therefore a performance based payment system should normally differentiate between applied technologies and parcel size. A performance based system needs to be modified and adapted for the larger collective, communal or state land parcels.

A system of payment based on the official DSA rates can be considered, but probably leads to an unnecessarily slow implementation of field activities by the SLR teams in order to maximise DSA payments.

Eventually other payment systems could be envisaged, such as a lumpsum payment system per village which must be based on a careful estimate of the required time to survey and adjudicate all parcels in the village area, or payment systems per square meter or boundary point surveyed. A lumpsum system could lead to the omission of parcels in order to finish quickly and would require effective control of output. A financial lumpsum agreement procedure can be combined with an output based payment system, e.g. by agreeing on a bonus if the complete task (x amount of parcels) is finalized in y days while meeting all required quality checks and criteria.

Lately there also has been a proposal for a new payment system based on surveyed boundary points. Overall, an output-based remuneration system, as it is described in Annex 13, still provides the best option.

9.3 The Cost of Land Registration and Titling

The up-front and start-up costs for the implementation of SLR consist of:

- Training of staff (independent from the number of parcels which will be surveyed)
- Procurement of equipment (survey equipment, computers, motorbikes etc.) and computer software for the SLR teams, DONRE and PONRE; all equipment is depreciated over a period of 5 years.
- Information campaigns (CSLT) at village level (independent of the number of parcels in the village)

The variable costs or operational costs include:

- Consumables specifically related to the performance
- Accommodation, fuel or alternatively lumpsum payment for implementation
- Output-based or alternative remuneration system for the SLR teams
- Maintenance costs for equipment
- Costs at DONRE and PONRE for the conclusion committee, checks and issuing of titles

The following table provides a summary overview on the costs of land registration and titling per district, based on 2 SLR teams per district and performance based payment, an average output of 1,750 surveyed parcels per year and team (3,500 parcels/district/year) and 12 villages.

Table 8 Costs of Land Registration and Titling per District

Cost Item	Units	Cost in LAK
Training Costs (total)		46,400,000
Legal Framework, Participatory Methods, CSLT	5 days	15,000,000 ⁴
ToT Surveying Techniques, QGIS, Lao LandReg	5 days	6,000,000
Adjudication and data man.	5 days	15,400,000
SLR teams Surveying Techniques, QGIS	10 days + 14 days coaching	10,000,000
Investment Costs⁵		100,255,400
Surveying Equipment and IT Equipment, 4 motorbikes and 8 kits for SLR Teams	Estimated at 60,000 US\$ (see Annex 9)	92,430,400
DONRE Equipment		6,650,000

⁴ Based on covering 2 districts in one training event

⁵ All investment costs are depreciated over 5 years

PONRE Equipment		1,175,000
Implementation CSLT and Sub-CSLT	12 villages	18,000,000
Operational Costs		303,960,000
DoLA		18,240,000
PONRE	12 villages	37,920,000
Field work by SLR team (output-based remuneration)	12 villages	190,500,000
DONRE costs	12 villages	57,300,000
Overall cost	3,500 parcels/year	422,215,400⁶
Cost per Title	3,500 titles/year	120,633
		= 15,1 US\$

N.B.: This calculation does not yet include any costs for remote sensing materials (orthophotomaps or satellite images)!

A list of the standard equipment for SLR teams (set of surveying equipment, IT equipment, motorbikes and team kits) as well as equipment for DONRE and PONRE is shown in Annex 13.

9.4 Land Tax Collection

With a progressing expansion of land registration, land tax collection will become an easier and more transparent exercise. In rural areas, due to the absence of precise land data, land tax collection in the past was mostly based on estimates and data from previous years. With systematic land registration and a full coverage of all land parcels, the total amount of land tax revenue per village can be calculated based on data in the Lao LandReg.

Furthermore, the planned addition of a land tax module in the Lao LandReg will permit the printing of tax invoices directly from the registry database. This will allow for a more transparent and consistent collection of land tax in all areas already registered and titled. With time, this will also increase the overall amount of land tax collected.

The current land tax rates according to the Presidential Decree No.001, 2007 are presented in Annex 14. According to the Presidential Decree on Land Tax, communal and state land is exempted from land tax. Nevertheless, commercial use of communal land is taxable. This means that resources harvested from communal land for household use would not be taxed, but that the profit from selling natural resources harvested from communal land would be taxed.

⁶ Excluding the training costs

Table 9 Land Tax Data for Lao PDR

YEAR	Land Tax Target in million LAK	Land Tax Achievement in million LAK	Other Revenue from Land (Land Registration and others)	TOTAL Land-based Revenue in million LAK
2010-2011	131,000	84,940	53,960	138,900
2011-2012	155,970	85,604	37,874	123,478
2012-2013	180,000	85,000 (est.)	38,000 (est.)	123,000 (est.)

In 2010/2011, which was the last year that NLMA (predecessor organisation to DoLA/MoNRE) was in charge of land tax collection the planned target for revenue from land tax was LAK 131 billion. Since then, land-based revenue in Lao PDR has stagnated and even slightly decreased. The most recent figures are estimates for the year 2012-2013.

For the land tax collection process, 5-15% (depending on the degree of urbanization) of the collected amount is given to the village, except for “sam sang” villages which receive 40% of the collected amount.

9.5 Sustainable Funding Mechanism for Countrywide Roll-Out of Systematic Land Registration

The national targets for land registration have been set by the 8th NSEDP with a target to register 400,000 parcels over the coming 5 years. This amounts to 80,000 parcels a year. As shown in Table 8, average implementation costs sum up to approximately 120,600 LAK or 15,1 US\$. In addition, training costs of 46,400,000 LAK (5,800 US\$) need to be foreseen per District. Assuming that every year 15 additional Districts out of the 148 Districts of Lao PDR would start their participation in the land registration activities, the required annual training budget would stand at 87,000 US\$. In addition, an annual budget of 1,208,000 US\$ would have to be planned for the implementation support to the PONRE and DONRE in order to register and issue 80,000 titles per year. The total required budget would add up to nearly 1.3 million US\$ or 10.4 billion LAK per year.

Only a small part of the required 1.3 million US\$ per year will be contributed by external, mostly donor funds. It is therefore crucial to design a sustainable funding mechanism from the national budget.

A sustainable funding mechanism will be based on three elements:

1. The return of **all land survey fees and land title fees** collected during the registration process from the Ministry of Finance to DoLA for exclusive use as funds for the upscaling of SLR
2. Due to increased transparency and efficiency in the land tax collection process based on the land registration data in the Lao LandReg database and partly the possibility to print and send land tax invoices directly through DoLA/PONRE/DONRE, **a certain percentage of the annual land tax collected** should be re-allocated from the national budget for the countrywide roll-out of SLR

3. In addition, a percentage of all fees for subsequent land registration, fees for registration of transactions affecting land use rights and fees for conversion to another land use category in accordance with the Presidential Decree No.003, Dec. 2012 Art.78 (2), Art.79 and Art. 81.

Revenue from Land Survey Fees and Land Title Fees

The average revenue on land survey fees and land title fees under the revised fee system can be estimated as follows per rural village (based on an estimated average of 275 parcels per village):

Table 10 Collected survey fees and title fees for an average rural village

Land Category	Parcels	Survey fees in LAK	Title fees in LAK	Total Revenue
Construction land (average size 800 sq.m.), mountainous zone	135	2,700,000	2,025,000	4,725,000
Permanent agriculture (average size 5000 sq.m.), mountainous zone	125	3,125,000	1,875,000	5,000,000
Collective/communal land	9	exempted	135,000	135,000
State land	6	exempted	exempted	
Total	275	5,825,000	4,035,000	9,860,000

Communal and state land parcels are exempted from the payment of survey fees, while there is no title fee for state land parcels only.

Overall, the estimated revenue from land registration and titling activities in a rural village located in the mountainous zone is relatively low at approximately 10,000,000 LAK (see table 9) and will only provide a small contribution to the overall cost of systematic land registration activities.

In order to register approximately 80,000 land parcels per year in a systematic approach, land registration would have cover a total of 260 rural villages. This would provide for an estimated revenue for land survey fees and title fees of 2.6 billion LAK, or approximately 25% of the required 10 billion LAK per year.

Land Tax Revenue

Land tax revenue has stagnated at around 85 billion LAK per annum in recent years (see table 9). If 10% of the land tax receipts or currently 8.5 billion LAK could be returned from the national budget to MoNRE and its Department of Land, this could contribute to a sustainable funding mechanism to speed up land registration across the country and in line with the objectives of the 8th NSEDP. It can be assumed that the amount of land tax revenue would increase in parallel with the progressing registration of parcels and therefore the overall financial volume available for land registration would increase over time.

Subsequent Registration

There is only limited data available on land transactions in rural areas. Data from Luang Namtha Province established in July 2014 shows that out of a total of 11,840 approved land titles in the 5 districts a total of 2,790 parcels, the equivalent of 23.6 % have been transacted over the past years. As all subsequent registration fees (see Annex 15) are based on land values, the elaboration of land valuation data for rural areas will be essential. At present, such data is available for district capitals and smaller urban centres only.

Any registration of land transactions must take place at the responsible DONRE office or at PONRE for the municipalities. There is a plan to expand the current version of the Lao LandReg in order to incorporate also the entry of all subsequent registration data and the corresponding forms during the year 2015. According to the latest available data, total revenue from subsequent registration has hovered at around 35 billion LAK per year.

Sustainable Funding Mechanism

At present all operational funds for DoLA/PONREs/DONREs including funds for land registration are currently submitted as budget requests to the national budget via the Ministry of Finance. In the past years, actual budget allocations have always been reduced if compared to the original requests. The fact that all activities, such as land registration are the object of separate budget requests, does not allow for a consistent and transparent planning of activities. It is therefore essential to create a sustainable and reliable funding mechanism for future land registration activities in accordance with the national plans and targets.

Such a system will at the same time serve as an incentive for MoNRE to speed up and gradually scale up land registration activities. Obviously, the more parcels can be registered by MoNRE staff, the more fees and taxes can be collected in future.

Table 11 Revenue available for land registration under the sustainable funding system⁷

Source of Revenue	Estimated Amount in billion LAK/year	Remarks
Land Survey Fees (100% for MoNRE) and Land Title Fees (currently 100% to national budget; should be returned entirely to MoNRE)	2.6	
10% of annual Land Tax	8.5	As much as possible, land tax should in future be collected through direct tax invoicing system based on Lao LandReg
10% of subsequent land registration fees (1% registration fee) + 5% income tax on transfers (for Min. of Finance)	3.5	
TOTAL	14.6	This amount would be sufficient to fund the SLR activities and would grow with expansion.

⁷ This sustainable funding system still only constitutes a proposal and needs to be submitted for further discussions and approval to relevant higher authorities in the Lao Government

For a countrywide roll-out and eventually a complete cadastral coverage to be achieved, the following aspects need to be considered and resolved:

1. A sustainable and reliable funding mechanism for systematic land registration needs to be finalized and approved.
2. The new Land Law needs to be approved on the basis of the National Land Policy.
3. MoNRE needs to establish a well balanced approach for land registration to progress in urban and peri-urban environments, but also in rural and even remote areas, despite the differing amounts of expected revenue. To some extent, revenue from land registration in urban areas must be used for subsidizing land registration activities in rural areas (see proposal for a revised fee system in Chapter 13.1).
4. For rural areas, land registration activities need to be prioritized in areas where participatory and detailed land use planning activities have recently been implemented. Overall, land use planning activities by MoNRE and MAF need to be intensified and extended.
5. MoNRE and in particular DoLA need to invest heavily in training of staff, particularly at DONRE level, in order to create sufficient local capacities to carry the SLR approach forward. The integration of interns and volunteers will be essential to compensate for insufficient availability of full-time staff.
6. The Lao LandReg database application needs to be completed to cover all relevant aspects of land registration and land administration. All DONREs and PONREs in the country need to be trained and equipped with the Lao LandReg package.
7. MoNRE needs to continue the systematic digitization of all land registration activities and invest heavily into the required survey and IT equipment.

According to the latest figures, Lao PDR has 148 districts and 8627 villages. Of these villages approximately 2350 are urban or peri-urban villages, while the rest is located in rural areas. 2291 villages are classified as poor and these are mostly located in remote and mountainous areas. Under the assumption that urban and peri-urban villages have an average of 1000 parcels per village (based on data from LTP II) and rural villages have an average of 300 parcels (based on experiences in GIZ supported programmes), this would lead to an estimated total number of parcels of approximately 4,2 million parcels to be registered.

In the neighbouring country of Cambodia, the systematic land registration programme is entirely funded by the Cambodian Government since 2013. It has meanwhile reached a total of 3.85 million titles issued in all 24 provinces, with a target of reaching 4 million titles at the end of 2015. Since 2013, the national Government invests a total of 5 million US\$ per year into the programme. It is intended to reach full coverage of the country by 2025, with an estimated total of 8 to 8.5 million parcels.

The Government of Cambodia and in particular the Cambodian Ministry of Finance have recognized that land registration and titling can be a revenue generating activity. In 2014, the national Government had a revenue from the registration of transactions (subsequent registration) of over 35 million US\$. From this national revenue only 5 million US\$ were reinvested in the promotion and extension of land registration activities, while approximately 30 million US\$ are net revenue for the national budget. It must be noted that Cambodia only collects land tax in urban areas and has implemented land tax collection only in the Capital of Phnom Penh, and the Provincial capitals of Siem Reap, Sihanoukville and Battambang.

ANNEXES

ANNEX 1 LEGISLATION DEFINING LAND TENURE IN THE LAO PDR

No.	Year	Institution	Title
	1990	National Assembly	Property Law
0054	1998	MAF	Ministerial Approval/Decision No. 0054 on Right and Traditional Uses of Natural Forest Resources
03	2000	President	Decree on Land Tax
25	2003	National Assembly	Constitution
47	2003	National Assembly	Law on the Local Administration of the Lao PDR
04	2003	National Assembly	Land Law (under revision)
67	2004	Prime Minister	Decree on the Establishment of the NLMA
06	2007	National Assembly	Forestry Law (under revision)
564	2007	NLMA	Instruction on Adjudications Pertaining to Land Use and Occupation for Land Registration and Titling
01	2007	President	Decree on Land Tax (replaced 03/PO 2000)
88	2008	Prime Minister	Decree on the Implementation of the Land Law
1668	2008	NLMA.CAB	Instruction on the Use of New Formats of Land Titles and New Registration Book
3204	2008	PMO.NLMA	Instruction on Collection of Fees and Service Charges by the Land Management Sector
115	2009	Prime Minister	Decree on Associations
012	2010	NLMA.CAB	Instruction on the Use of New Formats of Land Titles and New Registration Book (replaced 1668/NLMA.CAB 2008, but no significant changes)
435	2011	Prime Minister	Decree on the Establishment and Activities of the Ministry of Natural Resources and the Environment (MONRE)
003	2012	President	Decree on Service Charges, Fees and other Directions
	2013	National Assembly	National Land Policy (draft)
6035	2014	MoNRE	Ministerial Directive on Cadastral Surveying and Cadastral Mapping
6036	2014	MoNRE	Ministerial Directive on Land Registration and Land Titling

ANNEX 2 ROLES AND RESPONSIBILITIES OF COORDINATORS AT DONRE OR PONRE LEVEL; COMPOSITION AND TASKS OF THE DISTRICT CONCLUSION COMMITTEE

Responsibilities of the DONRE Coordinator(s):

- Coordination with other departments/government organizations
 - Public Works and Transport Office (Village road infrastructure data, CSLT)
 - District Lao Women’s Union (CSLT, Village Authority Training)
 - District Governor’s Office (CSLT, approval team composition)
- Coordination Steering Committee at district level
- Land conflict resolution
- Coordination local authorities – DONRE
- Supervision of Teams
 - Team meetings with minutes on
 - Achievements & Constraints
 - Financial Issues
 - Future work plan (new villages)
 - Technical Issues
 - Occasional team visits on site
- Reporting to PONRE (DoLA)
- Organize Conclusion Committee Sessions

Responsibilities of the PoNRE Coordinator:

- Support and Training on:
 - Adjudication
 - Survey
 - Lao LandReg Database
- Financial Supervision
- Technical Supervision/Quality Assurance of:
 - Survey
 - Accuracy (Field Check)
 - Completeness & Correctness
 - Plausibility of topology
 - Digital Data Management
 - Data Back Up & Hardware maintenance (check for regular updates)
 - Adjudication
 - Completeness & Correctness

- Digital Data Management
- Data Back Up & Hardware maintenance (check for regular updates)
- Data Entry
 - Completeness & Correctness
 - Topological error check of parcels inside database
 - Data Back Up & Hardware maintenance (check for regular updates)
- Land Title Signing (by the Head of the land registration section and one Deputy Head of PONRE, as 2 signatures are needed)

Composition of the District Conclusion Committee:

MD 6036 (2014): The District Conclusion Committee is appointed by the District Governor as proposed by DONRE. The members of this body come from five sectors, namely the following:

- Deputy Mayor of the District, or Cabinet Chief of the District Administrative Committee, Head of the Categorizing the Types of Rights to Use Land
- Head or Deputy Head of the Cabinet of the District's Natural Resources and Environment Office, Deputy Head of the Committee
- Representative of the District's Public Works and Transport, member of the committee
- Representative of the District's Agriculture and Forestry, member of the committee
- Representative of the concerned sector (if necessary), member of the committee
- Representative of the District's Land Management Unit, member of the committee
- Representative of the central unit, assistant

According to experiences for Vieng Phou Kha District in Luang Namtha, the District Conclusion Committee will generally consist of 5 members, representing the district administration, DONRE, DAFO and DPWTO.

The main tasks of the Conclusion Committee are:

- Conduct meetings for categorizing and checking the types of rights to use land as proposed by the SLR teams,
- Examine the Land Files of the land parcels (surveying, and questioning about the right),
- Approve the land use rights,
- Assess any complaints or grievances made before or during the public display of survey and adjudication results in a village,
- When the categorizing and checking task is complete, the committee must submit the documents within 3 days to DONRE which will issue notification to potential contestants.

ANNEX 3 OPTIONS FOR THE REGISTRATION OF PARCELS ACCORDING TO THE VARIOUS LAND USE CATEGORIES

Land Use Category	Private	Collective	Communal	State
1. Construction land	√ e.g. residential houses	√ e.g. offices, stores	√ e.g. village halls, communal buildings	√ e.g. offices, schools
Housing clusters (hamlet)			√	
Reserved land for constr.			√	
2. Agricultural land				
Paddy fields	√	√	√	(√)
Perennial crops	√	√		(√)
Gardens	√	(√)		
Orchards	√	(√)		
Agroforestry	√			
Upland Agr. Areas			√	
Reserved land for Agr.			√	
3. Livestock grazing	√	√	√	
4. Forestry land				
Tree plantations	√	√	√	√
Village Use Forest			√	
Cemetery Forest			√	
Sacred/Spirit Forest			√	
Production Forest				√
Protection Forest				√
Conservation Forest				√
5. Waterbodies				
Fishponds	√	√	√	
Larger ponds (reservoir)			√	
Lakes			√	√
Wetlands			√	√
Rivers and streams				√
6. Cultural Sites				
Cultural buildings			√	
Religious/cultural sites			√	
Land for rituals			√	
Wats			√	√
Tourist Areas				√

ANNEX 4 LAND TITLE DOCUMENTS

1. Individual (private) title document



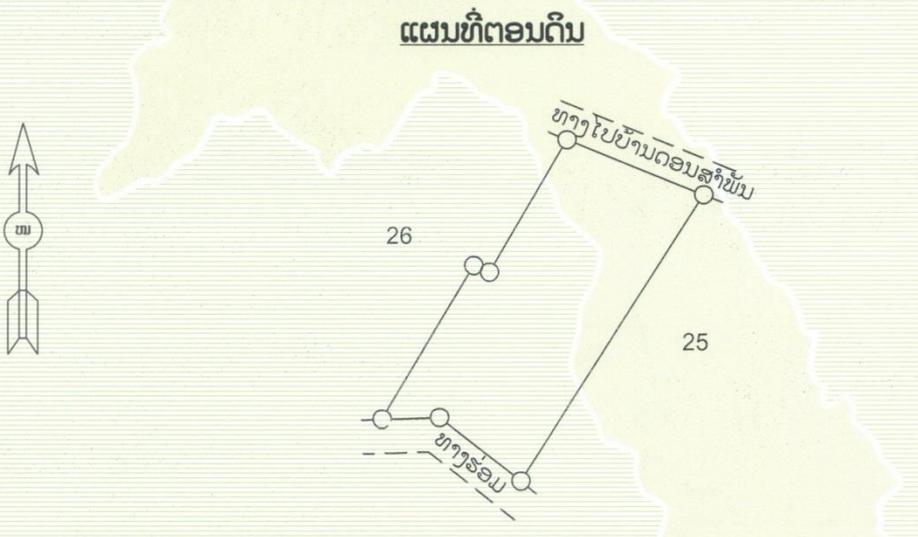
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ອອກໃຫ້ແກ່ :	ວັນເດືອນປີເກີດ : 14/2/1979	ສັນຊາດ : ລາວ	ອາຊີບ : ພະນັກງານ
ທີ່ຢູ່ປັດຈຸບັນ : ບ້ານ ຫ້ວຍຊາຍໃຕ້ ໜ່ວຍ: 35 ເມືອງ: ຫ້ວຍຊາຍ ແຂວງ: ບໍ່ແກ້ວ	ຊື່ຕົວຫຼືເມຍ : ທ. ບຸນມິ ວິງຈິນດາ	ວັນເດືອນປີເກີດ : 20/9/1977	
ສັນຊາດ : ລາວ	ອາຊີບ : ພະນັກງານ		

ການໄດ້ມາຂອງສິດນຳໃຊ້ທີ່ດິນ : ການໂອນ	ຖານະເປັນເຈົ້າຂອງສິດນຳໃຊ້ທີ່ດິນ : ຊັບເດີມ-ຍິງ
ປະເພດທີ່ດິນ : ປູກສ້າງ-ທີ່ຢູ່ອາໄສ	ເຂດ : ພູດອຍ-ຂະຫຍາຍຕົວເມືອງ
ປື້ມທະບຽນທີ່ດິນເຫຼັ້ມທີ : 9 ໃບທີ : 5	ແຜນທີ່ຕາດິນເລກທີ : C-750-322/09
ຕອນດິນເລກທີ : 87 ເນື້ອທີ່ດິນ : 1,500	ຕາແມັດ, ມາດຕາສ່ວນ : 1/1000

ແຜນທີ່ຕອນດິນ



ອອກໃຫ້ທີ່ : ແຂວງ ຫຼວງນ້ຳທາ	ວັນທີ : 25	ເດືອນ : 05	ປີ : 2015
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ຫົວໜ້າພະແນກຊັບພະຍາກອນທຳມະຊາດ

3. State land title document



ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

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ເລກທີ: 21104-00023 ເມືອງ: ຫລວງນ້ຳທາ

ອອກຄັ້ງທີ: 1-15-27-9 ບ້ານ: ນາຫ້ອມ ໜ່ວຍ: _____

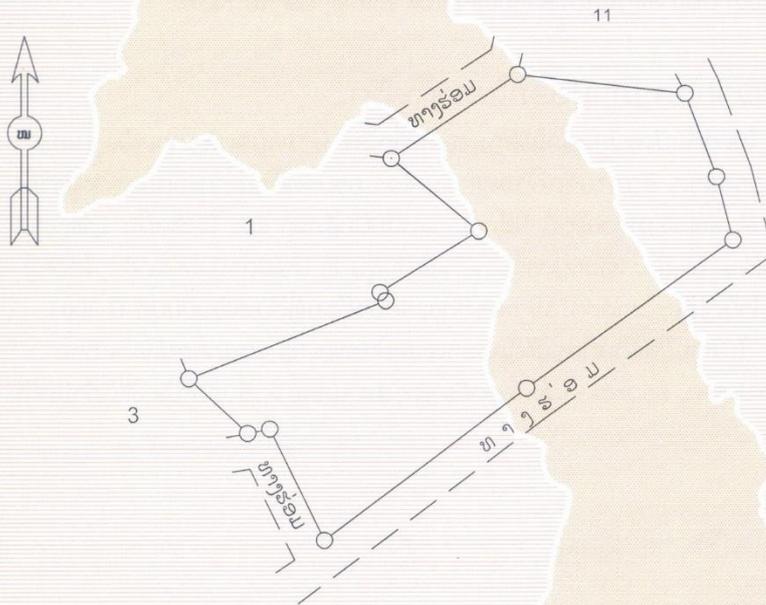
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ປື້ມທະບຽນທີ່ດິນເຫຼັ້ມທີ: 07 ໃບທີ: 14 ແບບທີ່ຕາດິນເລກທີ: C750-324/10

ຕອນດິນເລກທີ: 002 ພື້ນທີ່ຂອງດິນ: 4.225m ຕາແມັດ

ມາດຕາສ່ວນ: 1:1000 **ແຜນທີ່ຕອນດິນ**



ອອກໃຫ້ທີ່: ແຂວງ ຫລວງນ້ຳທາ ວັນທີ: 18 ເດືອນ: 04 ປີ: 2011

ຫົວໜ້າອົງການຄຸ້ມຄອງທີ່ດິນ ຫົວໜ້າຫ້ອງການທີ່ດິນ

 **ຈັນທິ ແກ້ວສຸພອນ**  **ຄຳພັນ ບຸນວິງ**

ANNEX 5 PROPOSAL FOR A NEW COMMUNAL LAND TITLE DOCUMENT



Lao's People Democratic Republic
Peace Independence Democracy Unity Prosperity

Ministry of Natural Resources and Environment
 Department of Land Administration
 Provincial/Municipality Office of Natural Resources and Environment

Communal Land Title

No.: No of Issue: Issued to: Purpose of Use: Land Use Type: Land Register Book No: Sheet No: Cadastral Map No: Land Parcel ID:	Location of Land Parcel: Province/Capital: District: Village: Unit: Local Area Name: Area:sqm. or ha
--	--

1. Category of Communal Land

- 1.1 Unchangeable Communal Land (this land cannot be allocated to individual families under any circumstances)
- 1.2 Potentially divisible Communal Land (if all community members agree, this land could be subdivided and allocated to individual families or groups in future)

2. Specification of who is eligible to use the communal land parcel

- 2.1 All households of Village:
- 2.2 Specific User Group(s):
- 2.3 Users from these other villages (on equal terms):
- 2.4 Some users from these villages (encumbrance):

3. Use Regulations

This communal land can be only used for the following purposes:

 Please attach any existing management plan, the village regulations or existing rules and regulations!

4. Responsibility for the Management of Communal Land Parcel

.....

Map of Land Parcel

Scale:

Description of Boundary (Description as text, based on local and natural features)

Place of Issue: Province

Date: Month: Year:

Director of Provincial Office of Natural Resources
and Environment

Head of Land Management Division

ANNEX 6 TRAINING OF STAFF

1. Legal Framework for SLR , Participatory Working Methods & CSLT

This package contains three different topics whereas the first topics should provide a sound knowledge on legal aspects which are related to SLR and the second one provides a set of appropriate working tools and communication skills which enable the villagers to understand the content and actively participate. The two topics can be seen as a foundation for the following CSLT where the legal background knowledge and the usage of appropriate tools are needed to deliver all necessary information on SLR to clarify questions and to get a clear understanding of rules, responsibilities and of course the benefits of SLR. The package training can be provided together with three different modules. The group of participants for all three modules is the same. If appropriate, the training could be provided for 2 districts together but the maximum number of participants should not be more the 20. The target participants are:

- CSLT staff of all field teams (appointed inside the field team, including at least one surveyor)
- DONRE staff
- Province and District LWU staff
- PONRE staff (co trainer for CSLT Training)

The duration of the training will be 4-5 days.

Frequency: Initial training with refresher training if monitoring missions indicates the necessity

Costs: 15,000,000 LAK

Place: Province (PONRE & another meeting room)

1.1 Legal Framework of Land Registration

The government staffs at district level needs to have an updated knowledge on the land law and related laws, ministerial decrees and directives as well as province and district regulation which provide the legal scope for SLR.

Trainers

- DoLA (Division of Legislation and Conflict Resolution or Division of Land Registration)
 - LWU Headquarters
 - CLE (Community Legal Education group from the Faculty of Law)
- or a combination of trainers from these institutions.

Topics/contents:

- Land Law and derived decrees and instructions
 - o Definition of land ownership types and examples
 - o Definition of land use zones and examples

- Obligations of land ownership
- Expropriation and grievance mechanism
- Land Fee & Service Charges Pres. Decree 003 PPT, 26 Dec2012
- Presidential Decree No. 1 on land tax
- Forest Law (Decree of Protected Areas)
- Law on Water Resource Management (river buffer zones)
- Law on Public Roads (road limits)

Duration: 1 day

1.2 Participatory Working Methods

It is important to know the target group to select the right set of communication tools to deliver the message in a way that the beneficiaries understand the delivered content and be able to participate actively. In mountainous rural regions with a high ethnic diversity containing a lot of non-native Lao speakers and also illiterate people adjusted tools are important.

Trainers

- DoLA (Division of Legislation and Conflict Resolution or Division of Land Registration)
 - LWU Headquarters
 - CLE (Clinical Legal Education group from the Faculty of Law)
- or a combination of trainers from these institutions.

Topics/contents:

- Moderation and Presentation skills (free speech, volume of voices, no reading of pp slides)
- Visualization of content (example documents, posters, movies, simple power point presentation)
- Interactive session (involvement of villagers) through:
 - Storytelling
 - Questions & Answers
 - Simple role plays

Duration: 2 day

1.3 CSLT

CSLT plays a very important part in the success of systematic land registration exercises. It is particularly important when operating in rural villages where land value is low and there is less motivation to receive land titles. Involving the local Lao Women's Union proves to be a big advantage as the LWU has its direct network from national to village levels. Therefore, the

training on CSLT is designed to deliver not only information that needs to be communicated to the target villagers, but also the methods and tools of delivery. Gender is an important agenda point, and it is usually delivered by the Lao Women's Union.

The training can be summarized as below:

Trainers

- One from Department of Land Administration who is assisted by responsible PONRE staff.
- One from Central LWU assisted by Provincial LWU

Topics/contents:

- Logical sequences of CSLT (How to structure the CSLT session?)
- Understanding of systematic land registration (concept, importance, related laws and regulations).
- Importance of CSLT. Roles of Local LWU and DONRE in conducting CLST at village level.
- Contents of village CSLT, for example
- Related laws and policies
- Importance of land title as the sole highest document certifying the land use right (ownership) which supersedes all other land documents. Land title gives the tenure security thus protects the lands from being given away for other purposes. Use of land titles for economic purposes, etc.
- Disadvantages/risks from unregistered/untitled lands
- Advantages of systematic land registration over the sporadic registration – it is an opportunity to get the land titles almost for free.
- Land registration processes, interaction between the field team and the owners. Participation is a duty.
- Roles of village authorities.
- Obligations of the land occupiers including, preparation, participation, and payment of fees.

Contents of specific women CSLT

for example:

- Overview of gender in land registration
- Family law, property law and inheritance law and how they imply in the land registration and titles, whose names should be on the land titles.
- Benefits/importance of women's participation in Land registration process
- Rights of women related to land tenure: rights under laws, having names in land titles, possible effects.
- Most frequently asked questions and case examples.

- IEC (information, education and communication) methods and tools

Contents of specific communication on communal land (CCLT)

- Overview of communal land registration
- Definition of different sub categories of communal land (indivisible and divisible communal land)
- Benefits/importance of communal land registration
- Rights of communities related to land tenure: rights under laws
- Most frequently asked questions and case examples
- IEC (information, education and communication) methods and tools

Methodology

- Presentations by trainers
- Videos
- Posters, leaflets
- Lots of examples, case studies
- Q&E sessions during and after presentations
- Group works to complete forms and presentation of results.
- Role plays: target trainees deliver information to the villagers (the rest of the class). Trainers give scores and then analysis and discussions

Duration: 2 days

2. Surveying Equipment, QGIS, Lao LandReg database and Utilisation of Remote Sensing Material

Training of Trainers (ToT)

When new technologies are introduced to the Lao land administration it is important to train a team of master trainers who will then train the supervising staff at Province level and the implementing staff at District level.

Trainers

- National and international advisors from GIZ
- Regional or international consultants
- Experienced technical staff DoLA, NGD

Target participants

- Appointed DoLA staff from Surveying and Land Administration Division
- Lecturers from Polytechnic College Vientiane

- Advisors from other donor organizations who already support or intend to support the Lao land administration in the field of land registration

Selection criteria for target participants

- Surveying background
- GIS experience
- Experienced IT user
- English language skills preferable to communicate with supplier and to utilize online support forums
- Official assignment to work as a master trainer for land registration

Topics/contents

- Surveying technology
 - Theoretical background (more extended)
 - Setting Up and calibration of surveying devices
 - Starfire (including handling of StarUtil software)
 - Total Station
 - Digital Plane Table
 - Interfaces
 - User Surface (GUI)
 - Designing attribute tables
 - Survey settings
 - Image integration (Orthophoto)
 - Trouble Shooting & Support
 - Internet search
 - Supplier Contact
 - Surveying Procedures
 - Theoretical background
 - Field practice
 - Data collection
 - Data documentation
 - Data processing
- Use of remote sensing materials (aerial photos, ortho-photoplans, satellite images)
- Cadastre Data Management QGIS
 - Brief introduction to GIS/QGIS

- Explanation GUI
 - Download additional plug ins
 - Trouble shooting & support
- Setting up interfaces QGIS/Postgis
- Topological error checking
- Editing of geometry data and attribute data
- Merging data
- Using the dimension plug in
- Creating user defined styles
- Using the map composer and creating map templates
- Creation of a Base map in QGIS (Orthophoto Adjudication)
 - Set up QGIS projects
 - Add vector and raster data (including WMS)
 - Visual interpretation of ortho-photos
 - Interpretation and digitizing of linear and single topographical features
 - 3 D environment (support NGD)
 - Contour line interpretation
 - Edit attribute table structure of vector data
 - Add additional shapefile layer (PLUP, SLLCI, DoF classified forest)
 - Snapping of parcels surveyed with different surveying methods
 - Scale dependent generalization of vector features (topographical elements)
 - Create a buffer
 - Automatized polygonising of point features (single geometry)
 - Create a basemap in the print composer for print out
 - Georeferencing in QGIS (basemap with delineated communal plot)
- Lao LandReg DB Management
 - Installation of Lao LandReg DB (incl. PostGIS/PostgreSQL)
 - Establishment of Lao LandReg DB in a local network environment
 - Setting up user and connecting to QGIS
 - Handling of application for land registration
 - Export/import
 - Data Entry
 - Data search

- Print preview
- Print forms
- Monitoring of database (reports and quality checks)
 - Filter functions
 - DB manager QGIS
 - PostGIS interface
- Maintenance of database
 - Run sql queries for necessary updates
 - Update functions
 - Back up

Duration: 1 initial training (5 days) and refresher trainings upon request (5 days)

Costs: for 24 trainees for 10 days without an international/regional consultant: approx. 6,000,000 LAK

Place: Vientiane (DoLA, Polytechnic College)

3. Adjudication

Adjudication is a consideration of the details concerning land parcels including the location, size, type, rights and obligations of the land occupiers/users, as specified in the Land Law and other relevant laws, based on the evidence concerning the law and regulations and actuality of land occupation and use. There are two types of adjudication: systematic and sporadic.

Systematic land adjudication is a method to determine boundaries of each land parcel, in each location and type of land, and to identify the owners who occupy and use the land, which will start at a specific area of villages and village clusters and, thereafter, to further expand to all the rest land parcels existed in such villages or village clusters.

Adjudication training is the first of the start-up training courses. It is an important course to ensure that responsible staff have enough legal and procedural knowledge and are ready to apply it in the field. With modern survey technology, adjudication work tends to be by far behind the survey if everything is functioning with full capacity. Therefore, apart from giving theoretical and practical knowledge to the adjudicators, the adjudication processes need to constantly streamlined to keep pace with the surveying. Refresher training is conducted as the outcome of technical monitoring reveals the necessity.

Adjudication training can be described as follows:

Trainers

- Two trainers from Department of Land Administration (DoLA)
- PONRE staff is attended as trainees and as assistant trainers.

Target participants

- Adjudicators of all field teams and the main target staff, but all other staff will have to attend as teamwork requires multidisciplinary.
- The admin and data entry staff as well as DONRE managers (members of Conclusion Committee) are also invited to attend the training
- Two or three PONRE staff will attend as well

Topics/contents

- Land registration systems in the Lao PDR
- In-depth contents of the Ministerial Direction No. 6036/MoNRE
- Related laws, including land laws, land law implementation decree, selected articles of laws on inheritance, family, property, road, water, forest.
- Structures and organization of the land registration team. Roles, duties and responsibilities of each position in the team and the DONRE staff and managers.
- Adjudication processes: field work – collection of evidences, interview, completion of forms, signing of forms; office work – compilation of land files, checking correctness and completeness of the land files, coordinating with other team members, i.e. surveyors, data entry
- Practical exercises of completing different forms
- Roles and duties of other parties in the processes, such as village authorities, land use right holders, other district line offices

Methodology

- Presentations by trainers (Powerpoint)
- Lots of examples
- Q&E sessions during and after presentations
- Case studies related to questions that are most frequently asked by the villagers
- Group works to complete forms and presentation of results.

Duration: 5 days

Frequency: Initial training with refresher training if monitoring missions indicates the necessity

Costs: 15,400,000 LAK

Place: District (DONRE & District meeting hall)

4. Training for Lao LandReg DB maintenance & administration (National Level)

Trainer

- National or Regional Consultant

Target participants

- Appointed DoLA staff from Surveying and Land Administration Division and other relevant Divisions

Selection criteria for target participants

- Experience with Database systems
- GIS experience
- Experienced IT user
- English language skills preferable to communicate with supplier and to utilize online support forums
- Official assignment for Lao LandReg DB maintenance & administration
- Selection criteria for Target Participants

Topics/contents

- Theoretical background
- PostgreSQL structure
- Introduction to Pgadmin
- Regular SQL Training with Lao LandReg DB

Duration: curriculum proposal needs to be brought in by DoLA

Frequency: several sessions

Place: Vientiane DoLA

5. Training for SLR Teams and Technical Supervisors from PONRE on Surveying Equipment, QGIS, LaoLandReg and Interpretation of Remote Sensing Material

The master trainers from DoLA are the ones who provide the training for the implementing teams. The lecturer from Polytechnic College have the role of multipliers in the academia and provide supervisions and training to their students in case they are involved in surveying or data entry activities at District level.

Supervisor: National and International Advisor from GIZ (only the first training session)

Trainers

- Master trainer from DoLA
- Lecturer from Polytechnic College (optional)

Target participants

- Technical supervisor PONRE
- Surveyors
- Central Unit
- Additional students from Polytechnic College when agreement to support the teams intern

Selection criteria for trainees

- DONRE
 - IT basics
 - Preferably GIS basics

- Surveying basics
- Official assignment for position in the SLR team
- Students
 - Surveying focus
 - GIS focus
 - IT literacy

Topic/contents

- Surveying technology
 - Theoretical background (in brief)
 - Setting Up and calibration of surveying devices
 - Starfire (no handling of StarUtil software)
 - Total Station
 - Digital Plane Table
 - Interfaces
 - User Surface (GUI)
 - Survey Settings
- Surveying Procedures
 - Theoretical background (introduction to MD 6035/MoNRE)
 - Specific surveying procedures for collective, communal and state land registration
 - Field practice
 - Data collection
 - Data documentation
 - Data processing
- Cadastral Index Map preparation and printing
- Cadastre Data management QGIS
 - Brief introduction to GIS/QGIS
 - Explanation GUI
 - Download additional Plug Ins
 - Topological error checking
 - Editing of geometry data and attribute data
 - Merging data
 - Using the dimension plug in
- Creation of a Base map in QGIS (Ortho-photo Adjudication)
 - Set up QGIS projects
 - Add vector and raster data (including WMS)
 - Visual interpretation of ortho-photos
 - Interpretation and digitizing of linear and single topographical features

- Edit attribute table structure of vector data
 - Add additional shapefile layer (PLUP, SLLCI, DoF classified forest)
 - Snapping to arrive at a seamless cadastre
 - Scale dependent generalization of vector features (topographical elements)
 - Create a buffer
 - Automatized polygonising of point features (single geometry)
 - Create a basemap in the map composer
 - Georeferencing in QGIS
- Database (PostgreSQL/PostGIS & Lao LandReg DB)
 - Theoretical background
 - Installation of database modules (PostgreSQL/PostGIS/Database/Application
 - Setting up user and connecting to QGIS
 - Handling of application for land registration
 - Export/import
 - Data entry
 - Data search
 - Print preview
 - Print forms
 - Monitoring of database (reports and quality checks)
 - Filter functions
 - PostGIS interface
 - Maintenance of database
 - Run sql queries (PONRE supervisor)
 - Update functions
 - Back up
 - Data handing over

Duration: 10 days initial training which will be followed by a 14 day on the job coaching provided by a master trainer

Amount of participants: maximum 10

Frequency: 1 initial training and refresher trainings up on request

Costs: 10 days initial training including a 14 day on the job coaching: 10,000,000 LAK;

45 day internship of 8 students of Polytechnic College: 61,500,000 LAK

Place: District (DONRE & District meeting hall)

ANNEX 7 DETAILED DESCRIPTION OF CSLT ACTIVITIES

1. Training for village authorities (2 days)

Participants: Village Head, Deputy Village Head, Village Lao Women Union,
Objective: Procedures and advantages of SLR, roles & responsibilities (explain SLR to villagers, identification of boundaries, official forms etc.)

Village Authority Training

- ❖ Duration: 2 days
- ❖ Place: District center or Village cluster center
- Trainees:
 - Village chief
 - Deputy in charge of land
 - Village Lao Women's Union Representative
- Trainers:
 - 1 trainer from DoLA (not compulsory)
 - 2 trainers from PONRE
 - 2 trainers DONRE
 - 1 Representative from PWTO
 - 1 Representative from District Lao Women Union
 - District Governor or Vice Governor

2. Communication on Systematic Land Titling (CSLT) (2 days)

Participants: whole village, including hamlets + non-residential plot owners
Objective: Importance & procedure of SLR; clarify open questions

- ❖ Duration: 2 days (including preparation)
- ❖ Place: Village
- Participants: all villagers and title applicants (women and men); Facilitator:
 - District Office for Natural Resources and Environment (DONRE)
 - Head or Deputy head DONRE
 - CSLT core team
 - District Lao Women's Union (DLWU)
 - District Public Work and Transport Office (DPWTO)
 - District Administration Office
 - District Vice Governor
 - Village Level
 - Village Chief
 - Deputy in charge of land
 - Village Lao Women's Union Representative

3. Specific meeting for Women in each village ½ day (Facilitated by DLWU)

Participants: All women of the village
Objective: Specific rights of women; clarify open questions

It is very crucial that the communication for women is specifically prepared and women should be strongly encouraged to attend the CSLT session. The reasons behind this are that women in rural areas are not well aware of their rights and obligations towards the land ownership and tenure; they have low interest in participating in land registration process as it is perceived to be the men's task in attending the village meetings and other official settings.

4. Sub CSLT

Preparation of survey & adjudication by applicants – 4 days (average per village)

- Preparation of Documents by villagers (B1 etc.)
- Boundary marking by plot owners

❖ Place: Village Unit or Agricultural land cluster

➤ Participants: all title applicants from a village unit

➤ Facilitator:

- SLR field team (2 Surveyor, 2 Adjudicator)
- 1 Representative from PWTO
- Village Authority (Village Chief or appointed SLR facilitator)
- 1 additional Village Facilitator (e.g. village teacher)

ANNEX 8 AWARENESS CREATION AND MOBILIZATION AT VILLAGE LEVEL

Preparation

No.	Activity	Method	Duration	Responsible persons
I. Preparation and appointment for village CSLT sessions				
a. Preparation in the village				
1	Notification of appointment, agenda for CSLT sessions	Letter	-	CSLT team to village authorities
2	Clarification of CSLT objectives	Direct call/ communication	20 min	CSLT team to village authorities
3	Identification of venue for CSLT session	Direct call/ communication	10 min	CSLT team Village authorities
4	Assessing the needs for a bilingual session and organize the ethnic language co-facilitator (staff or village authority)	Direct call/ communication	10 min	CSLT team Village authorities
5	Appointment of village members	Loud speakers		Village authorities
b. Preparation in the office				
1	Invitation letters include agenda & related documents to associated agencies 1. District governor`s office, 2. District Lao Women Union office, 3. District Public Work and Transport office	Letter	---	CSLT team
2	Preparing the CSLT toolbox (Digital session with electricity, hardcopy session without electricity)	Checklist	---	CSLT team
3	Going through the check list of equipment that is needed for the session: LCD, cable, Laptop, Poster, Loudspeaker & microphone)	Checklist	---	CSLT team

CSLT Session

II. CSLT Sessions at the village				
a. CSLT Session for the whole village				
Topics for communication				
1	Opening speech for CSLT sessions Importance of SLR and Titling	Speech	10 min	District (Vice) Governor or Village Head
2	- Objective of SLR and Titling - Overview on land law, relevant laws and land policies	Speech Presentation	20 min	Deputy of DONRE
3	Benefits of land title - What is a land title? - Types of land title - Types of land eligible for titling - Benefits of land title	Presentation and poster	20 min	CSLT team
4	Disadvantages/risks of unregistered/untitled land	VDO -	20 min	CSLT team
5	Preparation for Land surveying and adjudication - Land surveying technologies - Preparation for land surveying (road buffers, road limit/access and its implication for land registration) - Types of parcel boundary markers and posting - Preparation of documents and evidence for land adjudication (personnel and land documents)	Presentation	30 min	CSLT team DPWTO CSLT team CSLT team
6	Explanation of		20 min	CSLT team

	<ul style="list-style-type: none"> - Workflow of systematic land titling - Fee structure for land surveying and registration 	Poster Presentation		
7	Information on collective, communal and state land	Presentation	180 min	CSLT team
8	Questions and Answers	Presentation	20 min	All (CSLT team, DPWTO and DLWU)
9	Summary of the key message Closing remarks	Speech	10 min	District Governor or Village Head
b. CSLT Session specifically for women				
Topics for communication				
1	Overview of Gender topics in land management	Presentation	10 min	DLWU
2	Benefits/importance of women's participation in Land registration process	Presentation	10 min	DLWU
3	Rights of women related to land tenure: rights under laws, having names in land titles, possible effects	Presentation	10 min	DLWU
4	Discussion (questions & answer)		10 min	DLWU
5	Summary of the key message	Speech	10 min	DLWU

Sub CSLT (Readiness check before survey/adjudication starts)

III. Sub-CSLT on practical preparation for land surveying and adjudication				
1	Appointment of sub-group of owner to show and explain the work process in details	--	--	Surveyors Adjudicators
2	Check list/readiness for documents for adjudication needs to be checked <ul style="list-style-type: none"> - Check completeness & correctness B1 form - Check completeness & correctness owner documents and evidences on land use rights 	--	--	Surveyors
3	Assure all land disputes are solved amongst the applicant inside a unit	--	--	Adjudicators
4	Check correctness and sufficient marking of road limits	--	--	Surveyors
5	Assure boundary markers are produced and distributed for the parcels in the unit	--	--	Adjudicators
6	Placement of boundary marker	--	--	Surveyors
7	Cleaning of parcels to ease the access for the surveying teams	--	--	Adjudicators

ANNEX 9 SURVEYING TECHNIQUES AND EQUIPMENT

Overview of survey technologies used by DoLA

Technology	Positional horizontal accuracy on point	Price/ unit	Point sampling time	Min. No. Surveyor	Level of skills	Estimated Productivity (parcels/ day/team)	Cadastral reliability	Procurement & Maintenance
DGPS SF3040 Starfire	± 10 cm	130 mil LAK	2-4 sec.	1	medium	12	high when appropriate quality assurance applied	Switzerland/ USA
GNSS GRS-1 Topcon	± 50 cm (ext. antenna) 1 -3 meter int. antenna)	30 mil LAK	20 sec.	1	medium	10	high when appropriate quality assurance applied	Switzerland Singapore
Stonex R6 Total Station	± 1-2cm	54 mil LAK	10-15 minutes	2	high	8	high when appropriate quality assurance applied	Switzerland/ USA
GPS Sokkia GSR 1700 (base and rover single frequency PP)	± 10 cm	64 mil. LAK	2-4 sec.	1	low (use without a dpt)	5	high when appropriate quality assurance applied	Laos
Leika Uno (base and rover single frequency PP)	± 10 cm	272 mil LAK	2-4 sec.	1	low (use without dpt)	5	high when appropriate quality assurance applied	Laos
Leica GS10 + RTK dual frequency (base and rover, PP)	± 0.5 cm	792 mil LAK 223 mil 156 mil	2-4 sec.	1	low (use without dpt)	used for establishment ref point	high when appropriate quality assurance applied	Laos
Total Station Sokkia 210	± 0.3 cm	80 mil LAK	10-15 minutes	2	high	-	high when appropriate quality assurance applied	Laos
Total Station PCR 802 Leica	± 0.3 cm	104 mil LAK	10-15 minutes	2	high	-	high when appropriate quality assurance applied	Laos
X91+ GNSS	± 1-2 cm	240 mil LAK	2-60sec.	1	high	15	high when appropriate quality assurance applied	Laos

Remarks on Productivity of Standard Surveying Equipment

Productivity of a RTK: 15-20 parcels/day

Productivity of a Total Station: 5-6 parcels/day

Productivity of a SF: 10 parcels/day

The SF has proven to be very efficient for agricultural land and communal land, while the RTK base is quite difficult to transport. On the other hand, a Total Station is even more difficult to transport by motorbike!

Digital Plane Table (DPT)

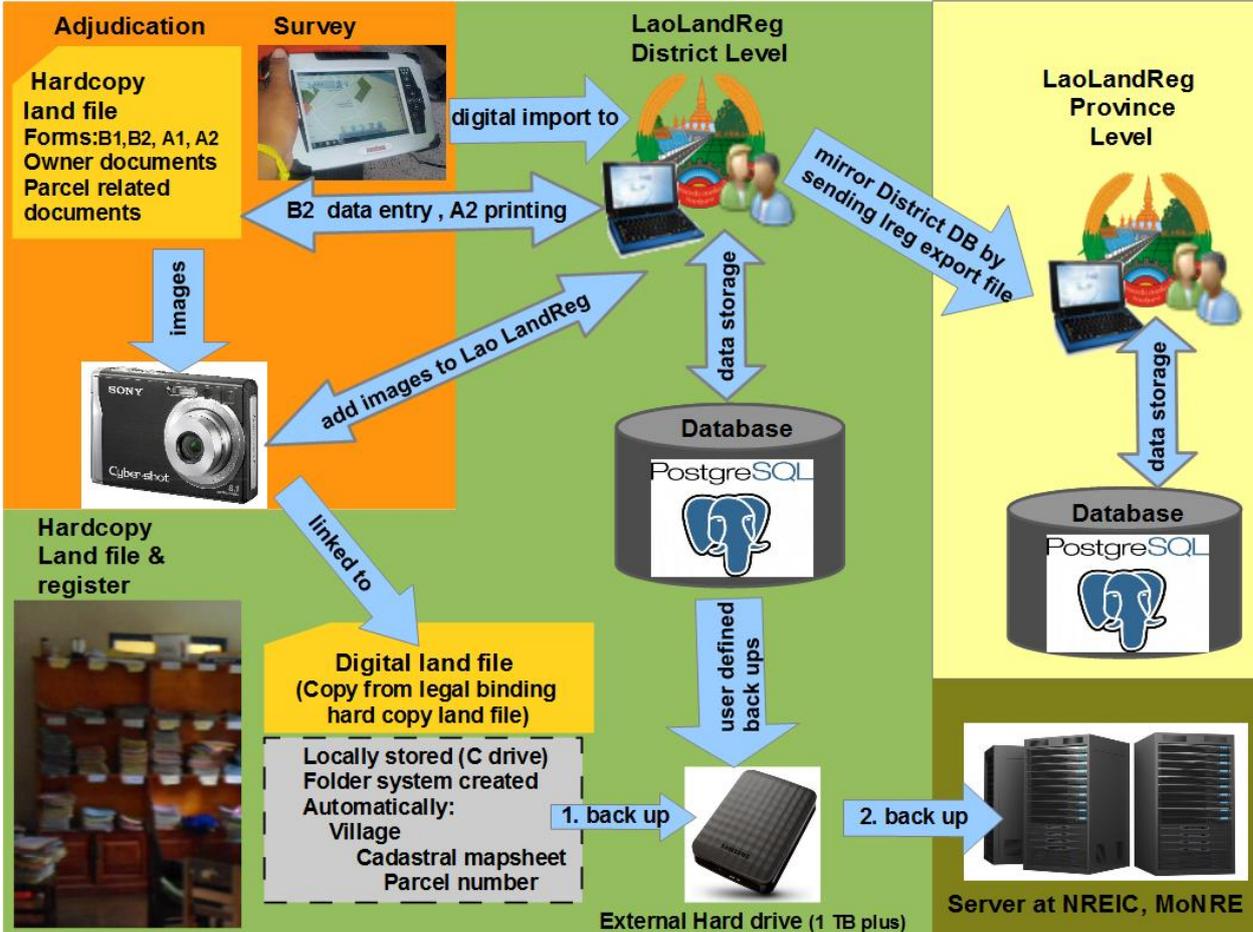
The Digital Plane Table (GIS 360) is a core tool of the Model for SLR as it enables the surveyor to digitize and edit the cadastral data straight in the field and has more important features which are listed below:

- Interface to
 - 34 GNSS receiver brands (Navcom, Trimble, Sokkia, Leica, ...)
 - 12 Total Station brands (Leica, Sokkia, Stonex, Trimble, ...)
 - 2 Laser Distometer brands (Truepuls, LaserAce)
- GPS survey including
 - Record of survey metadata
 - Setting up threshold for important accuracy parameters
 - Different sampling modes (single, averaged, by distance, by time)
 - Calibration function for transforming the WGS 84 position into the national geodetic grid
- COGO function for construction methods like:
 - Arc intersection
 - Orthogonal lines
 - Bearing and distance
- Total station Free stationing and Stationing on known position
- GIS functions for generating and editing of points, polygon and line
- XML attribute editor (data designer) to generate user defined attribute tables for which are saved together with the geometry
- Integration of grid in Lao Datum 97 UTM47N and Laos Datum 97 UTM48N
- Map services through
 - Online Map services (Bing map, Google map, Yahoo, ...)
 - Cartotiff tool for the integration of own background maps (Quickbird images or NGD aerial photos)
- Possibility to translate the complete GUI into Lao language (not realized yet)

ANNEX 10 SEMI-DIGITAL OR FULLY DIGITAL CADASTRAL MANAGEMENT SYSTEM

1. Semi Digital Cadastral Data Management System

The current cadastral data management system is only semi-digital. Although the Lao LandReg database allows for a digital processing and storage of textual information and geometry data, the land records, like forms, land titles and the register are kept in a hardcopy filing system. This is due to the fact that hard copy documents are the ones that are legal binding and not the digital one. The organizational structure is shown below. A way towards a complete digital system is sketched in the next paragraph.



2. Ways towards a Full Digital Cadastral Data Management System

In order to take the steps towards a fully digital cadastre and record keeping system, the digital data should be the one that is legally binding and any printout will then only be considered as a copy. It will still be necessary to produce a hardcopy of the land title for the deed holder.

Important arguments for a full digital data management system are stated below:

Benefits from a fully Digital Cadastral Data Management System

i. Cost reduction for the process of SLR

There are several cost factors that come exclusively with a hardcopy data management system, respectively could be reduced with a full digital system. It is expected that the costs coming with a fully digital system are considerably lower. The table below roughly sums up all costs involved with a hard copy system:

Main Categories	Detailed matter of expense	Costs/title (US\$)
Forms, Documents & Files	Copy costs for forms	0.35
	Land file folder & metal clip:	0.16
	Share of land file box	0.21
	Land title and register form	0.40
Administrative Costs	Administrative costs (ink cartridge, pens, ink pad)	0.58
Equipment	Share file cabinet	0.58
Transport between District & Province	Average km between District and Province round trip 100km, Fuel 0,175 US\$/km, Average amount of land files per trip: 120	0.15
SUM		2.43

ii. Relief for a District Administration with insufficient facilities for a sound and safe land document storage

The possibility to store the land records and the hardcopy land files at District level in Laos is still unsafe as the standards of administrative offices are often inadequate to assure a sound long-term storage. The facilities at District level are often old and the space for land file and register storage is limited. District administrations, especially in poor Districts, have difficulties to allocate the necessary budget needed to renovate the office facilities to assure a safe and sound keeping of all land documents.

The picture below illustrates a typical problem encountered at DONRE Vieng Phoukha during the rainy season 2014 where intrusion of water led to severe damages to several land files.



Picture1: Damages at DONRE Vieng Phoukha through intrusion of water in July 2014 (Christian Metzger)

If the Government of Lao PDR wants to assure a safe and sound storage of all land files and the register, important investments will be required. It is assumed that an average of 2000 US\$ is needed to renovate one DONRE office (especially improved roof sealing, improved safety for the facility). In order to set up a safe storage of all land files and the register, roughly 300,000 US\$ needs to be spent countrywide for 148 Districts. A full digital system can ease the situation and take the pressure from the District level as the storage of digital data is not fixed to a certain location.

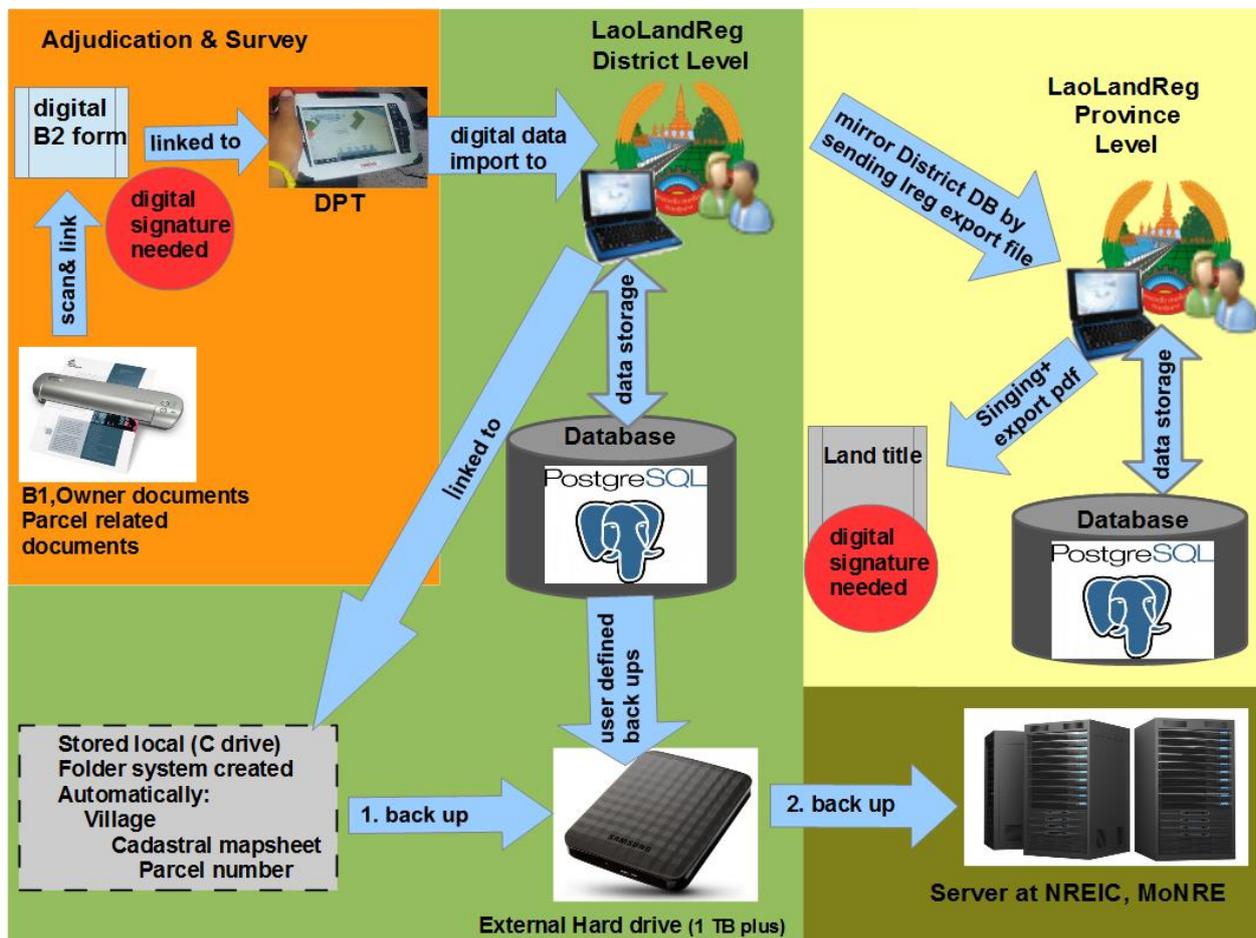
iii. Increasing Efficiency

A complete digital data collection and data storage would increase the efficiency of the SLR and would reduce the required working time. The drafted workflow highlights some expected simplifications:

- a) Sub-CSLT: applicant doesn't need to copy required documents.
- b) Adjudication: all documents are scanned and linked to the digital B2 form, the form is linked to the parcel and therefore geo-tagged. Hence a manual labelling of the land file will be obsolete.
- c) Data entry: automated import of B2 form data to Lao LandReg together with the geometry, no more manual entry. Therefore less risks for errors of entry. Supporting documents will be added automatically to the parcel as well and be stored in the digital land file folder.
- d) A2 form will be automatically linked to the digital land file after saving it as an image.
- e) Digital land file is automatically compiled.
- f) Head of Land Management Unit can access land files through intranet (for example, LAN) and use the folder icon palette to indicate land files which are ready to be send for conclusion.

- g) Conclusion Committee: Receiving digital land file folders via LAN or cloud service, like drop box) and use folder icon palette to indicate land files which are ready for public display.
- h) Public Display: print out C3/1 list and Cadastral Index Map.
- i) Title preparation
- j) Digital land file folder including land title are send to PONRE for signing.
- k) Digital signing of land title by PONRE authorities.
- l) Sending back of digitally signed land title to DONRE.
- m) Printing out of land title for applicant.

Possible workflow for a full digital cadastre



A digital signature needs to meet **the** following requirements:

1. it is uniquely linked to the signatory;
2. it is capable of identifying the signatory;
3. it is created using means that the signatory can maintain under their sole control;
4. it is linked to the data to which it relates in such a manner that any subsequent change in the data is detectable.

(Source:http://europa.eu/legislation_summaries/information_society/other_policies/124118_en.htm)

ANNEX 11 REVISED ADJUDICATION FORMS

Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

B.2

PoNRE.....

DoNRE.....

Record of Adjudication of Land Right

- With reference to the Ministerial Direction No. 6036/MoNRE dated 14 August 2014 on Land Registration and Land Titling

1. Location of land: Road.....
Unit.....Village.....
District.....Province/City.....
Cadastral Map No....., Land Parcel
Number.....

2. Land Use Right Owners: according to the information provided there areowners as below:

➤ Name and surname.....
Date of birth....., Nationality.....,
Occupation.....,
residing in house No..... Road....., Unit.....,
Village..... District.....,
Province/City.....
ID Card No....., Dated.....Family Book No.....
Dated....., Name of Spouse.....Spouse's date of
birth....., Nationality....., Occupation.....
Name and surname.....
Date of birth....., Nationality....., Occupation.....,
residing in house No..... Road....., Unit.....,
Village..... District....., Province/City.....
ID Card No....., Dated.....Family Book No.....
Dated....., Name of Spouse.....Spouse's date of
birth....., Nationality....., Occupation.....

Has given information and evidences on the land right on [date]....., with the following details:

3. How has the land use right owner acquired the land? (History of land acquisition):
clearance , Inheritance , Transfer , Given by the State , Other,
specify

4. Nature of the land use right: Original asset , Conjugal property , Joint land use right
right , Othespecify

5. Land use type:.....

Zone:.....

6. For what purpose does the occupier use the land?

7. Building's nature: concrete , wooden , Mix of concrete and wood
- Owner of the building: same owner as of the land , different owner from the land owner

I....., the land use right owner/assigned representative, confirm that the information given above is accurate, and I shall be responsible for consequences of it is found to be incorrect.

Witnesses

LUR Owner or Representative

1)

Signature:.....

2)

3)

4)

Name.....

12. Comments of Village

Chief.....

.....

At....., Date...../...../.....

Village Chief

1. Signature.....

.....

2. Name.....

.....

13. Comments of the adjudication team leader.....

at....., date...../...../.....

.....

Adjudication Team

Leader.

-Checked by the head of land registration unit DLMA_
Land Registration Unit.

Signature of DoNRE

.....

Proposed land use right category.....

14. Comments of conclusion committee:

Given Land Use Right Category:

Therefore, proposing for put on public announcement for objection/counterclaim .

At, date/...../.....

Name and signature of the conclusion committee

- 1. NameSignature
.....
- 2. NameSignature
.....
- 3. NameSignature
.....
- 4. NameSignature
.....
- 5. NameSignature
.....
- 6. NameSignature
.....
- 7. NameSignature

15. Put on public announcement Number,
date.....

Ranking number in the announcement

- Objection/counter claim, propose for further resolution. Brief description of objection.....
- No objection/counter claim, propose for issuing the land title

At, Date/...../.....

Head of DoNRE

16. Comment of head of provincial land
office.....

1. At,
Date/...../.....

2. **Head of Land
Management
Section
of PoNRE**

ANNEX 12 DETAILED DESCRIPTION OF LAO LANDREG

GIS

The open source GIS software QGIS was introduced for the Model of SLR as an intermediate step between the database and the DPT. QGIS is an open source software which means it is free of license fee.

Advantages using QGIS as open source software

QGIS is an Open Source Desktop GIS application which is cost free which means no additional costs for the model occur due to the GIS software. Proprietary software like AutoCAD, Arc GIS etc. cost thousands of US-Dollars. The QGIS application is small in size, only a few MB, and is completely or partly translated into Lao language.

Features of QGIS used in the Model for SLR

- Topological checks & error editing
- A1-Form Printing through QGIS interface
 - Dim Lao Plugin (automatized presentation of dimensions, extraction of boundary points with specific styles)
 - A1 form template in QGIS format existing
 - Cadastre Index Map template
- Export to DB Plug In to import cadastral data through QGIS into the Lao LandReg DB
 - Import of parcel
 - Import of survey points
- PostGIS interface to load database tables into QGIS for management and monitoring tasks (e.g compare assigned village to parcel with Village boundaries from a Land Use Planning dataset)
- DB manager for checks and views from different database tables (e.g. check for all construction land registered within year 2014 for Vieng Phou Kha district).
- The cadastral construction takes place in QGIS where the data can be saved straight as shapefile with the corresponding attribute table. Time consuming conversion and cleaning steps are not needed.

Overview of Database Components & Database Structure

The Lao LandReg DB application is a Windows form Desktop application and was tailored to the needs of the Lao Land administration in C# (VS 2012) programming language and with open source SharpMap API⁸ for spatial extensions. PostgreSQL was selected as an open source database management system (DBMS) with PostGIS as spatial extensions.

PostgreSQL has great advantages compared with a proprietary DBMS, like Microsoft Access as shown in the table below:

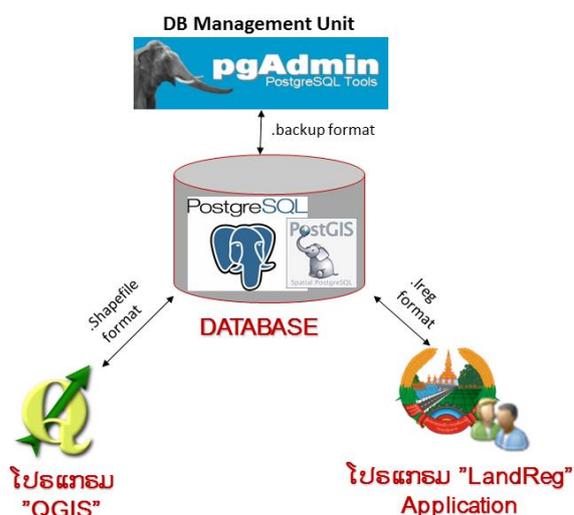
Database Capacities	PostgreSQL	MS Access
Maximum Database Size	unlimited	2GB

⁸ Mapping library for web and desktop applications with access to a lot of GIS formats which allows spatial querying and renders maps

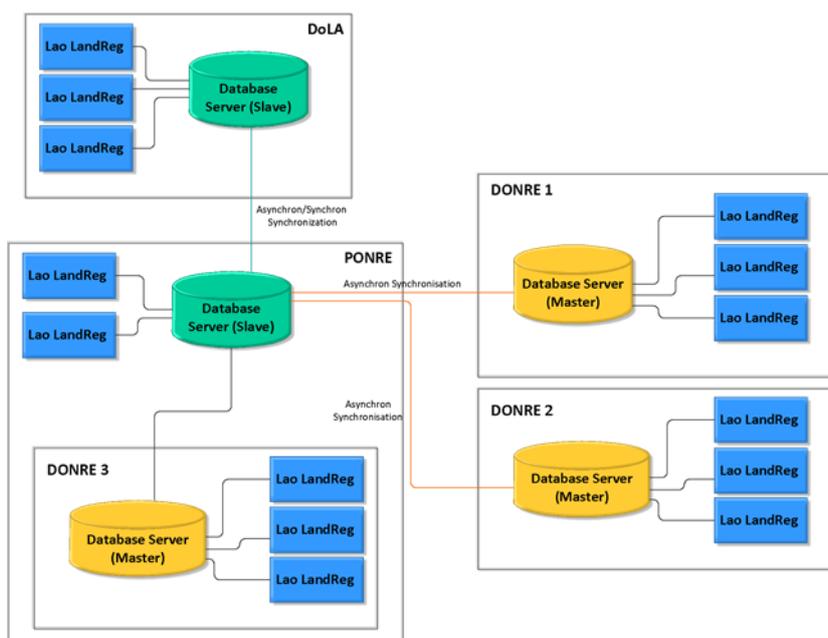
Maximum Table Size	32 TB	2GB
Maximum Rows per Table	unlimited	1GB
Maximum Columns per Table	1,600	255

Comparison of Capabilities PostGreSQL with Microsoft Access

PostgreSQL is an object-relational database management system. This means it is a system for managing data stored in relations. The relations are given by the tables (e.g. address, parcel, owner) in which the data is stored (spatial/non spatial). Beside tables there are other SQL objects, like sequences (special kind of database objects that produce unique identifiers), views (formC1, formA2, title private), functions (aggregate functions like count or sum), trigger functions (executed at certain events like before or after data update) and types which are grouped in views.



Vertical Data Exchange of LaoLandReg DB



PostgreSQL has a powerful open source spatial extension called PostGIS which adds support for geographic objects and allows running queries in SQL (Standard Query Language).

The database can be used as a standalone version or in a local network. It is recommended to use Lao LandReg DB in a local network as soon as more than one person work with the application. In a network different users access the same database which means that the database is up to date all the time and there is no need to export data from one standalone database to import the data into another standalone application. To establish Lao LandReg DB in a network environment is explained in the work instruction Lao LandReg DB in a server environment (see manual folder). It is recommended to work with a standalone version only if the data entry and data processing takes place on site e.g. in remote villages.

User Management

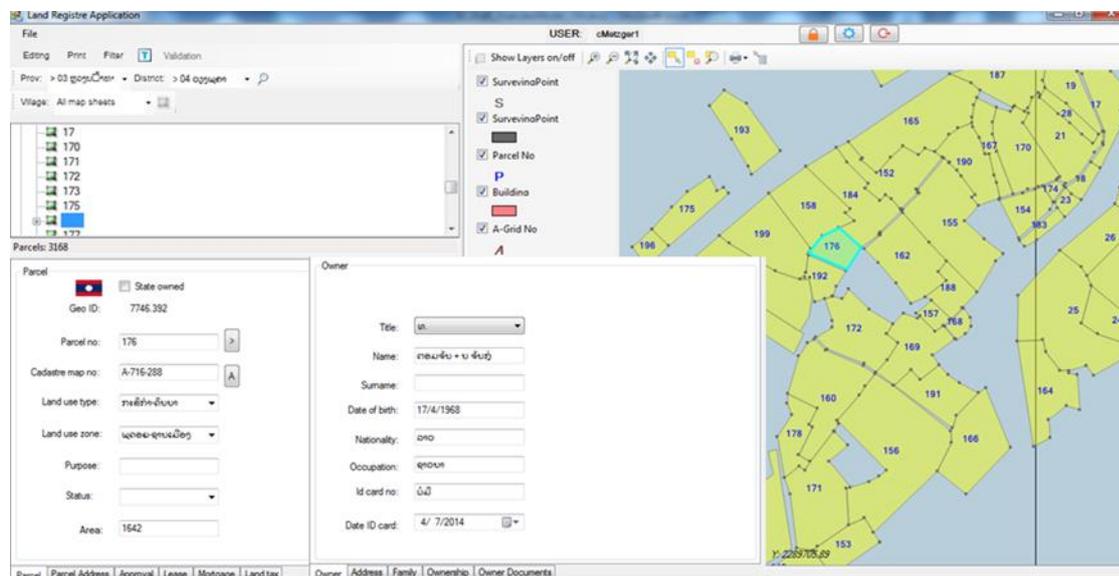
The application can be set up to create backups of the database automatically in user defined time intervals. A user management is implemented which allows to set up users at different administrative levels with different user rights or restrictions.

Data Import/Export

An import/export window inside the application allows data import and export. The data export follows different filter functions, like all data either from province, district or village. The data format (.lreg) is quite small sized which makes data transfer between different administrative institutions via e-mail attachment convenient.

Data Entry & Data Visualization

Geometry data from different schemas and tables which is imported through the QGIS interface can be visualized in the application's map window.



A data entry window exists for the following information:

- Entry of parcel information
- Entry of owner information
- Entry of metadata boundary points

Parcels: 3168

Parcel

State owned

Geo ID: 7746.392

Parcel no: 176

Cadastr map no: A-716-288

Land use type: ກະສິກະ-ດິນແດນ

Land use zone: ພູດິນ-ຊຽງເມັດ

Purpose:

Status:

Area: 1642

Parcel | Parcel Address | Approval | Lease | Mortgage | Land tax

Parcel Information

Owner

Tel: ທ່.

Name: ຕາມສິນ + ບ ສິນວຸ້

Surname:

Date of birth: 17/4/1968

Nationality: ລາວ

Occupation: ຊາວບຸກ

Id card no: ບໍລິ

Date ID card: 4/ 7/2014

Owner | Address | Family | Ownership | Owner Documents

Owner Information

SurveyingPointInput

Boundary marker number:

Details

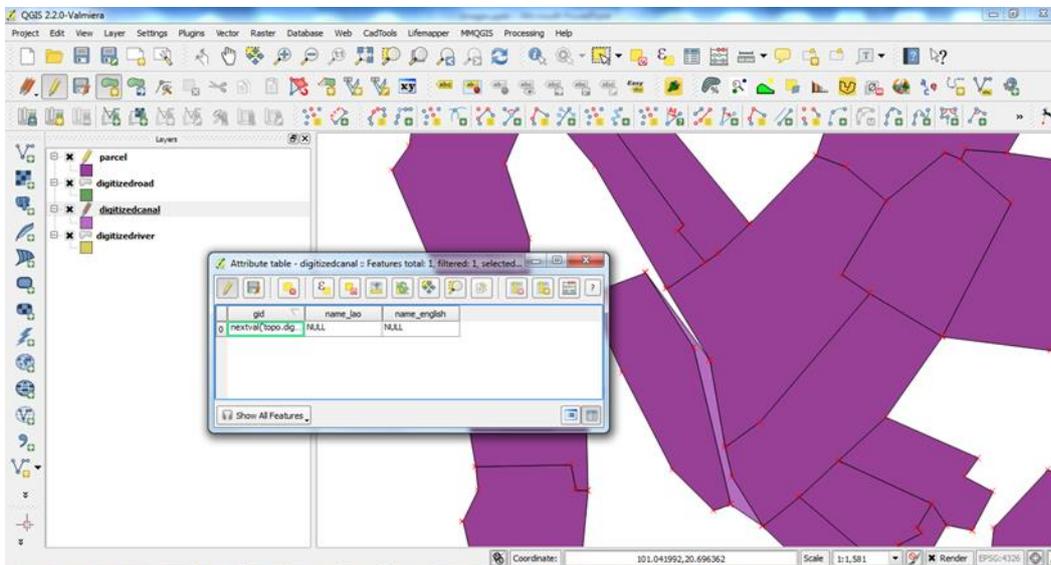
Surveyor: Import date: 4/3/2013 10:12 AM

Surveying data: 18122012 Surveying technology: DGNSS/ຈິດວິນັດ

Cancel Save

Boundary marker Information

Additional entries for topological feature (roads, rivers & canals) through QGIS interface via PostGIS layer are realized.

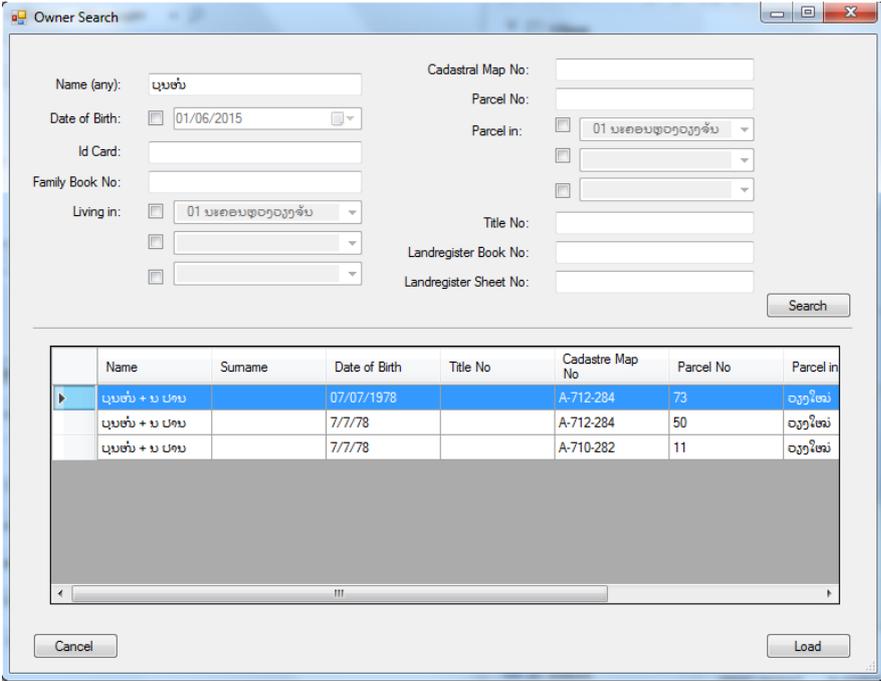


The cadastral map sheets are automatically generated as a grid (A grid, B grid, C grid & D grid) with an extension of 2km times 2km raster size. For a seamless presentation of the grid without gaps or overlaps the Grid layer can be loaded in QGIS either in Lao Datum 97 to UTM Zone 47N or Lao Datum 97 to UTM zone 48N.

As administrative entities, village points, district and province boundaries can be visualized in the map window, the possibility to update administrative entities is given. Therefore a detailed work instruction called Maintenance of Administration Entities has been written.

Search functions

An owner search window which allows searching for a certain owner by having the option to select different search criteria is realized. The parcel linked to the selected owner can be loaded in the application window.

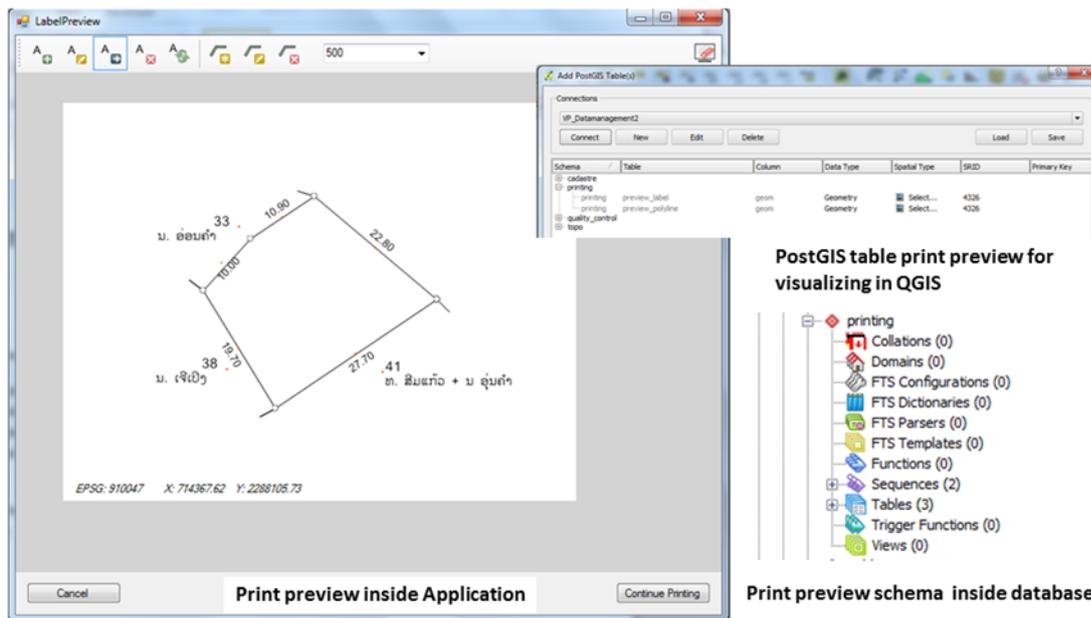


Filter functions, Validation, Checks & Audit

Several functions within the application or through the QGIS interface (Database Manager, PostGIS layer quality control) can be used to query and visualize database entries for database for quality check, reporting or output monitoring. A comprehensive manual named Checks, Views & Filter Functions Lao LandReg DB gives a deeper insight on applying the different function. Especially the database manager is very suitable to query different tables and to visualize the table with the geometry inside the QGIS. The tabular information can be exported through QGIS into an excel sheet.

Print preview

In order to print the A form, the Land Title and Land Register due to the requirements of the Lao Land Administration a print preview in the application allows to add, edit, move, rotate or delete labels and add, edit, snap, rotate, duplicate and delete line features. Edits can be changed with an undo redo function. The changes made are saved in an additional geometry table in the database. All adjustments of the geometry for printing the A form or title/register has to be done only once for a certain parcel. As soon as another printing order is made for a parcel, all adjustments done in the print preview previously are still available.



Printing forms (1 page A1, 2 pages A1, landscape and portrait, 1 page A2, 2 pages A2, landscape and portrait, Land title/Land register, C forms)

All forms are stored as views inside the database and will be printed as pdf documents in the directory C: LandReg.

The A forms and the Land Title/Register can be printed in following scales:

- 1:200/1:500/1:800/1:1,000
- 1:1,500/1:2,000/1:2,500
- 1:3,000/1:3,500/1:4,000
- 1:4,500/1:5,000/1:6,000/1:7,000
- 1:8,000/1:9,000/1:10,000
- 1:15,000/1:20,000/1:25,000/1:30,000/1:50,000

Following C forms can be printed (it is possible to print the forms up on a preselection of parcels):

- A 6 Land record sheet
- Confirmation of registration
- C31 List for Public Display
- C6 Land Register book
- C7 List with land title/register for sending to PONRE for private land
- C7 Compilation at District level
- C8 List with land title/register for sending to PONRE for state land
- C9 List with land title/register for sending to PONRE for communal land
- C10 Monitoring sheet for Conclusion committee
- C11 Registration form for title collection
- C12 Registration form for title collection

Back Up: The application can be set up to create backups of the database automatically in user defined time intervals.

ANNEX 13 COST CALCULATIONS FOR SYSTEMATIC LAND REGISTRATION IN LAO PDR

Comparison of various Standard Sets of Surveying and other Equipment per District with two SLR Teams

Option 1	Costs in US\$	Option 2	Costs in US\$	Option 3	Costs in US\$
1 Total Station per district	8568	1 RTK per district	30015	2 RTK (one per team)	60030
3 additional prism poles	414	1 SF 30-40 incl. field computer with DPT per district	16100		
2 additional prisms	552				
3 spiders	86				
Walky talky	368				
2 SF30-40 incl. field computer with DPT	32200				
4 laptops	5842	4 laptops	5842	4 laptops	5842
2 cameras	253	2 cameras	253	2 cameras	253
2 steel tapes	115	2 steel tapes	115	2 steel tapes	115
				2 handheld GPS	920
2 Mobile printer	700	2 Mobile printer	700	2 Mobile printer	700
4 Motorbikes	6900	4 Motorbikes	6900	4 Motorbikes	6900
8 Kits	1564	Kit	1564	Kit	1564
2 Mobile speakers	207	2 Mobile speakers	207	2 Mobile speakers	207
TOTAL	57769		61696		76531

(Exchange Rate: 1 EUR = 1,15 US\$); N.B. the above cost tables exclude costs for ortho-photos or satellite images used for boundary establishment of large parcels.

Output-based Remuneration System for SLR teams

The SLR team receives 40,000 LAK per small parcel (construction land, agricultural land).

In addition, the SLR team receives 160,000 LAK per large parcel (over 5 ha) independently of whether the parcel is private, collective, communal or state land or whether any field surveying or only boundary establishment by interpretation of ortho-photos was conducted.

The village head receives 5,000 LAK per small parcel (construction land, agricultural land) for his general assistance to the SLR team.

In addition, the village head receives 25,000 LAK per large parcel (over 5 ha) independently of whether the parcel is private, collective, communal or state land for his general assistance to the SLR team.

Alternative Remuneration System

There has been a proposal to introduce a remuneration system based on boundary points surveyed. On average, statistics have shown that 5.7 boundary points are surveyed per parcel. Under an assumption of having an average of 260 small parcels in a typical village, this would lead to 1482 boundary points which could be remunerated at 10,000 LAK for the entire team. On average, the alternative remuneration system is slightly more expensive and does not accommodate for the establishment and occasional surveying of larger e.g. collective or communal parcels.

Yet, the advantages of the alternative payment system are:

- Fairer payment system than payment per parcel as,
 - the complexity of a parcel reflected by the amount of boundary points is considered
 - shared boundary points are only paid once
- Monitoring of such a payment system is easy, as every boundary points will be imported to the LaoLandReg containing following information:
 - Boundary marker number
 - Surveyor ID
 - Surveying date
 - Import date
- Plausibility check after the boundary points are entered during import prevents import of boundary point which was already imported (double vertex and therefore double payment)
- No differentiation in payments structure related to parcel size is necessary

While the disadvantage of such a payment system are:

- The total amount of boundary points for a certain amount of parcels can only be estimated; this needs to be considered for the budget calculation.
- The ortho-photo adjudication of big parcels where the boundary points are derived by identifying topographical features together with the villagers which bares the risk that too many boundary points are digitized, especially along linear topographical elements which would increase the costs enormously.
→ the boundary marking of linear features must be restricted!
- Estimation of average amount of boundary points per parcel:
 - The collected data of 7040 parcels from 7 provinces gives a total of 40221 surveyed boundary points.
 - This leads to an average figure of 5.7 boundary points per parcel.
- The parcel based payment system suits the work coming with adjudication and data entry better than the payment system based on boundary points (adjudication and data entry has to be made for every parcel regardless of size and complexity)
→ the payment system based on boundary point could be only applied for the surveyors but this would make the overall payment scheme quite complex!

Equipment for DONRE Offices

One PC, printers A3 and A4, UPS, external hard-drive, LCD and Screen, power cord, generator, router for Wifi Internet, filing cabinet, land file box, folders for land files

Total estimated cost: 33,250,000 LAK or 4156 US\$ to be depreciated over a period of 5 years.

Equipment for PONRE Offices

Total estimated cost: 5,875,000 LAK or 734 US\$ to be depreciated over a period of 5 years.

ANNEX 14 LAND TAX RATES

Based on Presidential Decree No.001/PO, 2007

1. Agricultural Land

Area Subjected to Agriculture Land Tax	Land Tax Rates (kips/ha/year)					
	Low Land Area		Plateau Area		Mountainous Area	
	Urban Area	Rural Area	Urban Area	Rural Area	Urban Area	Rural Area
<u>I. Rice Field Area:</u>						
1. Paddy-fields	45,000	35,000	40,000	30,000	25,000	20,000
2. Paddy-field sustaining of damage by natural disaster:						
2.1 Area sustaining more than 70% of damage from natural disasters should be exempted from tax for the whole year.
2.2 Area sustaining less than 70% to 50%.	10,000	5,000	9,000	5,000	5,000	5,000
2.3 Area sustaining less than 50%	20,000	10,000	10,000	10,000	8,000	8,000
3. Fallow rice fields	30,000	20,000	20,000	15,000	20,000	10,000
<u>II. Upland Rice Field:</u>	20,000	15,000	16,000	14,000	14,000	12,000
1. Sedentary rice fields	25,000	20,000	25,000	15,000	20,000	15,000
2. Rotating rice fields						
<u>III. Orchard:</u>	12,000	9,000	11,000	10,000	10,000	10,000
1. Horticulture	30,000	20,000	20,000	10,000	15,000	8,000
2. Orchard trees	45,000	35,000	40,000	30,000	30,000	20,000
3. Industrial and annual crops	20,000	10,000	15,000	8,000	10,000	6,000
4. Medicinal plans	30,000	20,000	25,000	15,000	12,000	8,000
5. All types of vegetables	25,000	15,000	20,000	10,000	12,000	8,000
6. All types of woods						
<u>IV. Livestock Rearing Land:</u>	35,000	20,000	30,000	15,000	20,000	12,000
1. Natural livestock grassland						
2. Cleared natural livestock grassland	30,000	10,000	25,000	8,000	16,000	6,000
3. Livestock farm	45,000	35,000	40,000	30,000	30,000	20,000
4. Aquatic life rearing ponds	40,000	30,000	35,000	25,000	30,000	20,000
<u>V. Other Agricultural Land:</u>	40,000	30,000	35,000	25,000	30,000	20,000
1. Grassland without livestock	40,000	30,000	35,000	25,000	30,000	20,000
2. Other unused agricultural land						

2. Construction Land

Areas Subjected to Construction Land Tax	Land Tax Rates (kips/m ² /year)			
	Residential Area	Land for Building Industrial and Handicraft Area	Land for Building Commercial and Service Shops	Vacant Land (non-developed land)
<u>I. Towns administered by the Capital City:</u>				
1. Central urban zone	80	180	300	300
2. Peri-urban zone	60	150	240	240
3. Sub-urban zone	40	80	180	180
4. Urban development zone	30	60	100	100
<u>II. Towns administered by provincial authorities:</u>				
1. Central urban zone	60	160	250	250
2. Peri-urban zone	50	120	200	200
3. Sub-urban zone	30	60	180	180
4. Urban development zone	20	40	80	80
<u>III. Towns administered by district authorities or Chief-towns:</u>				
1. Central urban zone	25	60	120	120
2. Urban development zone	20	30	60	60
<u>IV. Rural Areas:</u>				
1. Lowland villages	15	20	30	45
2. Upland villages	10	15	25	30
3. Highland villages	5	8	15	15

ANNEX 15 SUBSEQUENT REGISTRATION FEES

As per Presidential Decree No.003, December 2012:

1. Fees for Subsequent Land Registration

No.	Change of land use right	Fee rate
01	Inheritance and transfer of land use right to children/offspring (native child, adoptive child, step child, a living spouse or a replacing heir on vertical line of relatives) of the deceased person	0.2% of the land value according to actual valuation for each land use category and zone.
02	Inheritance and transfer of land use right to vertical line of relatives (parent or grandparent) of the deceased person	0.3% of the land value according to actual valuation for each land use category and zone.
03	Inheritance and transfer of land use right to horizontal line of relatives (siblings, uncle, aunt) of the deceased person	0.5% of the land value according to actual valuation for each land use category and zone.
04	Transfer of land use right from the original owner and inheritance by will to non-relatives (other than points 1, 2 & 3 above)	1% of the land value according to actual valuation for each land use category and zone.
05	Registration of on-sale contract (sale with redemption right) in case the seller has not buy back	1% of the land value according to actual valuation for each land use category and zone.
06	Registration of exchange contract	1% of the value of the land parcel that has the highest value according to actual valuation for each land use category and zone.
07	Registration for using land as share capital	1% of the land value according to actual valuation for each land use category and zone.
08	Registration of confiscation of land use right	LAK 50,000/land parcel
09	Registration of conversion of state land utilization right to private or entity's land use right	LAK 80,000/land parcel

2. Fee for registration of transactions affecting land use rights

No.	Transactions	Fee rate (LAK)
01	Mortgage of land use right	0.2% of the loan value.
02	Lease of land	0.2% of the rent value.
03	Discharge of mortgage	20,000
04	Cancellation of lease	20,000
05	Cancellation of on-sale contract	20,000
06	Issuance of permission for state land utilization rights	50,000
07	Issuance of state land survey certificate	30,000
08	Transfer of lease	30,000
09	Sub-lease	30,000

ANNEX 16 MONITORING AND EVALUATION, QUALITY CONTROL

Workflow for Quality Control and Financial Clearance by PoNRE:

No.	Activity	Method	Duration	Responsible persons
IV. Preparation				
1	Appointment with DONRE coordinator about date and time	Direct call/communication	10 min	PONRE Monitoring Team, DONRE Coordinator
2	Appointment with Village authority for monitoring in the field	Direct call/communication	10 min	DONRE Coordinator, Village authority
3	Progress Monitoring	Excel Sheet/White-board/shapefile	1 day	DONRE Coordinator, appointed staff Central Unit
II. Monitoring at DONRE				
1	Checking last monitoring report	Meeting	0.5 h	PONRE Monitoring Team, DONRE SLR team, DONRE Coordinator
2	Meeting with SLR teams and heading over of data	Checklist	0.5 h	PONRE Monitoring Team, DONRE SLR team
3	Check Adjudication - Completeness & Correctness of land files (C1 form) - Digital Data Management - Data Back Up & Hardware maintenance (Check for regular updates)	Hardcopy, C1 form	2 h	1. Member PONRE Monitoring Team
4	Check Surveying (digital data) - Completeness & Correctness - Plausibility of topology - Digital Data Management - Data Back Up & Hardware maintenance (check for regular updates)	QGIS	4 h	2. Member PONRE Monitoring Team
5	Check Lao LandReg DB data entry (.ireg) - Completeness & Correctness, like comparison owner information between land file and data entry - Topological error check of parcels inside database - Data Back Up & Hardware maintenance (check for regular updates) - Checking seamlessness of cadaster (no gaps or overlaps between the parcels cluster of different land use zones, like permanent agriculture & forest zone)	QGIS/Database Manager	4 h	1. Member PONRE Monitoring Team
6	Check land register - Land register number against land title number - Structure of Land register book management in the file cabinet - Safety of storage	Hardcopy	1 h	1. Member PONRE Monitoring Team
III. Monitoring in the village				
1	Quality assurance by check of dimensions	tape	8 h	2. Member PONRE

	of selected land parcels			Monitoring Team assisted by DONRE staff or Village assistant
2	Check for correct boundary marking (in parallel with check of parcel`s dimensions)			2. Member PONRE Monitoring Team and Village Authority
IV. Monitoring/Quality Check Report & Recommendation				
1	Meeting with SLR teams and discussing monitoring report		1 -2 h	
2	Incentive based payment for all parcels/land files that passed the check		1-2 h	Financial Coordinator PONRE, District SLR Teams