

MAKING 3D PROPERTY LEGISLATION FEASIBLE IN MALAYSIA

TAN Liat Choon¹, Dr. Khadijah Binti HUSSIN², Sr. ERNEST KHOO Hock Oon³

^{1,2}Universiti Teknologi Malaysia, Johor, Malaysia

tanliatchoon@gmail.com, khadijah@utm.my

³Jurukur Khoo, Magic Mapper Sdn. Bhd. Licensed Land Surveyor, M.I.S. (M), M.A.A.L.S., Johor, Malaysia

khoo1973@yahoo.com

Abstract

Malaysian land administration provides a variety of rights, depending on the traditions of the country but the legacy cadastre system and land law are still using 2D geometric in legal and law expression (2D legislation) for land and property tenure and not prepared in 3D property legislation. These entire binding and legal document do not give enough 3D property legislation information for 3D property in Malaysia.

This paper describes the overview of cadastre system for 3D purpose and the situation in Malaysia. Some cases on 3D property will be illustrated concerning the 3D property legislation in Malaysia.

Research Questions and objectives have been identified in order to propose and realise the 3D property cadastre system. A study on the contents analysis of secondary data comprising of Registry Title, Land Office Title, Certified Plan, Strata Title Act 1985 (Act 318) and National Land Code 1965 (Act 56) can then be used to identify suitable contents in those legal documents that would change 2D legislation to 3D legislation. The instrument used in the data collection would be a questionnaire that is divided into five areas of study. The respondents comprises of the State Director/Registrar/Land Administrator from State Lands and Mines Office, State District Land Office, Chief Surveyor and Licensed Land Surveyors from Perlis, Kedah, Pulau Pinang, Perak, Federal Territory of Kuala Lumpur/Putrajaya, Selangor, Malacca, Negeri Sembilan, Johore, Pahang, Terengganu and Kelantan.

Throughout the paper is become clear that quite a lot of study will be needed to realise the 3D property legislation for 3D property in Malaysia. Finally, conclusions on scope and contribution of the research are presented.

Keywords: land administration, 3D, legislation, cadastre, property

INTRODUCTION

A systematic record of lands matters involving registration of the details of transaction such as transfer of land and interest, lease, charge, releasing of easement and change of condition of land is very important in the land administration, planning and development of land. As stated in ECE/HBP/96 (1996), land administration consists of Cadastral Survey and Mapping Registration System, and Land Registration System. Both systems contain different sets of records about land. These two systems are very important for the formation of a good cadastre system. A cadastre system is an information system consisting of a series of maps or plans showing the size and location of all land parcels together with text records that describe the attributes of the land. This 2D cadastre system is adopted by many countries in the world including Malaysia because the system provides essential information about land and property such as ownership of the lot and land parcel for the country.

THE CADASTRE SYSTEM FOR 3D PURPOSE

There is a need for a refined description of land because land is the most valuable resource for humans and it is the fundamental or base for all forms human activities. Land is the key to human needs as it is the source of shelter, labour, economy, business, food, finance and other resources as well as the basis for meeting the different kinds of societal needs of the community (Nordin, 2001). Without land, there would not be any human activities carry on in the world. This is due to the fact that land is both a physical commodity and an abstract concept of rights of ownership. However, depending on the jurisdiction, the definition of land may or may not include everything which is attached to it, such as building on the surface or vegetation growing on the land or minerals below the ground surface. A definition by Kaufmann (1999) mentioned that:

“As land is an important part of nature and the environment is the basis for nutrition, housing, energy production, resource exploitation, leisure activities, waste disposal, economic activities- in short for the maintenance and survival of humankind- cadastres are crucial aspect of sustainable development....”

It is vital that everyone who is involved in land matter needs to have knowledge of the cadastre because it plays a very important role in Land Administration System where it should provide order and stability in society by creating security for everyone involved (Hassan, 2008) that includes landowners, investors, moneylenders, traders, dealers, and governments (ECE/HBP/96, 1996). Furthermore, a good cadastre system in a country can lead to the stability of social, economic and environment management and development. There is a need to make changes to the present cadastre system in order to meet the changes in the modes of development as Valstard (2006) highlighted the fact that traditionally, land has been described and registered into 2D and all cadastre systems of the world are in fact 2D nature.

Today's property situations often occur whereby the third dimension play a significant role in determining the legal status of such property, especially in areas

with multilayer use of space. Examples of such property unit can be found in the following situations: (a) Above surface constructions, such as apartments, constructions on top of each other, overhead infrastructure and utilities & Use of air space and (b) Below surface constructions, such as underground constructions, infrastructure and utilities, region of polluted area & geological activities.

THE SITUATION IN MALAYSIA

The cadastre system is adopted worldwide and Malaysia is one of the countries who adopted the system for its land management. Peninsular Malaysia (hereinafter called as “Malaysia”) land administration is traditionally based on the Malaysian land law and this provides a variety of rights that are dependent on the traditions of the country. In Malaysia, land use rights are often based on occupation of land over a long period and this is defined in the written law or set by traditions. As the context of land use is no longer confined to the conventional definitions, the application of Malaysian legalistic land law of Malaysian Cadastre System for property which consists of Land Registration System and Cadastral Survey and Mapping System using 2D geometric in legal and law expression for land and property tenure is no longer adequate.

Furthermore, the utilisation of land for various purposes in Malaysia has not followed the process of the ideal Malaysian Cadastre System. It would be more practical if the Malaysian Cadastre System includes relevant information such as foundation of buildings, underground utilities, skywalks, using of air space, transportation services, and underground construction or whenever a situation arises for the need of exploiting a lot or land parcel for different activities.

1. Legal documents related to 3D property in Malaysia

The present scenario is that the rights, restrictions and responsibilities of the proprietor of the surface parcel shall also apply to the proprietor of properties above and below the ground surface, however, it have not been fully regulated and legalised by the Malaysian Cadastre System. In order to comprehend further these related matters, the legal documents which are related to lot, land parcel and land registry such as Registry Title, Land Office Title, Cadastral Map, so-called Certified Plan, National Land code 1965 (Act 56), Strata Title Act 1985 (Act 318), Survey Regulation 1976 (Peninsular Malaysia), Federal Constitution 1957, Survey and Mapping Director General Secular, Uniform Building By-Laws 1984, Street, Drainage and Building Act 1957, Building and Common Property (Maintenance and Management) Act 2007, Town and Country Planning Act 1976, Local Government Act 1976 and States Land Code, Act and Rule should be used to make the legislation feasible for all proprietors on the surface, above and below the ground surface.

2. Cadastre registration system in Malaysia

There are two systems in the Malaysian Cadastre System namely Cadastral Database Management System (CDMS) and Computerised Land Registration System (CLRS) operated by the Department of Survey and Mapping Malaysia (DSMM), State Land and Mines Office (PTG) as well as District Land Office (PTD). The CDMS database store information about land attributes, spatial objects etc. while the CLRS database store land ownerships, land tenures etc., but these two systems work separately in each organisation having different legal aspects which are still in 2D nature. This

means, there are no 3D object property rights as well as 3D cadastre rights within the CDMS and CLRS. Furthermore, it would be appropriate if these two systems could be incorporated for the registration form combining the present as well as advance and modern technologies such as GIS, internet, web based and e-commerce applications for a better cadastre system.

Meanwhile, one of the three main organisations responsible for managing and maintaining the cadastre system in Malaysia such as the Department of Survey and Mapping Malaysia (DSMM) that deals with the cadastral survey and mapping is under the Federal Government. Their responsibilities include registration of cadastral objects, such as lots and land parcel boundaries, identification of location, size and dimension of the properties. These details are determined through a very accurate cadastral survey. Besides that, the organisation is also responsible for preparing, producing and managing the spatial data. On the other hand, the non spatial data, i.e. the land title registration is the responsibility of the State Land and Mines Office (PTG) and District Land Office (PTD) which are both under the State Government. Their duties also include ownership registration which is managed by the Registry Title and Land Office Title. Within this Malaysian Cadastre System, there are also many direct and indirect codes and acts as well as legal documents that relate to cadastral survey and mapping, and land registration for property ownership currently governing the land administration. All these issues need to be addressed and are important towards the implementation of a 3D cadastre for 3D property in Malaysia.

3. 3D property cases in Malaysia

In Malaysia, public road i.e. state roads and municipal roads belong to state government while federal roads belong to federal government. When a private property is constructed above the public road, the cadastre system should recognise two or more different owners at the same time. There are a few cases for 3D property above the ground surface of public road in Malaysia.

a. Building over a public road

The most characteristic cases of private properties construct above public properties are the roads, as shown in Figure 1a, 1b & 1c.

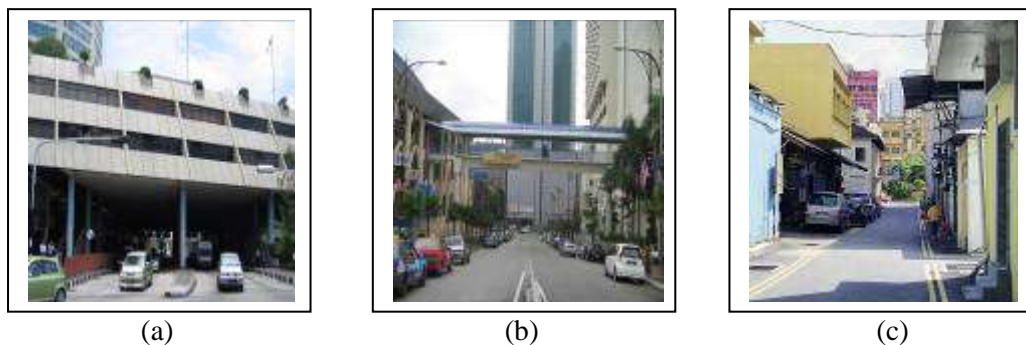


Figure 1: (a) Multilayer shop parcels above road reserve, (b) Skywalk above road reserve & (c) Balcony, bay window or structure above road reserve

b. Transportation network over a public road

The most characteristic cases of public properties construct above public properties are the monorail, light rail train rail line and their station, as shown in Figure 2a, 2b & 2c.

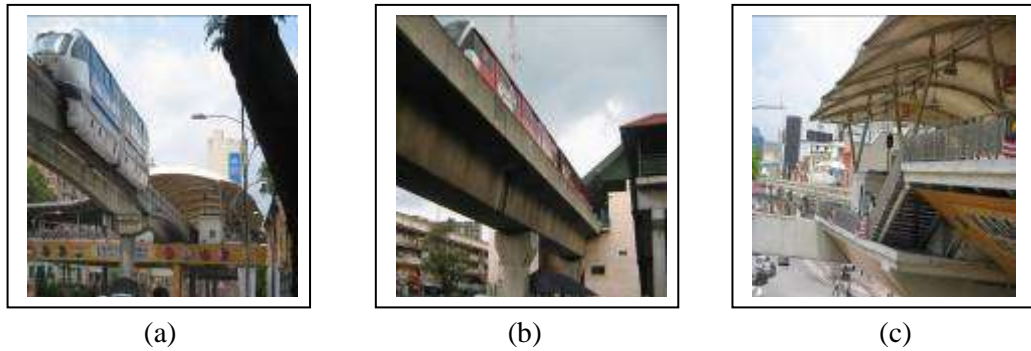


Figure 2: (a) Monorail, (b) Light Rail Train & (c) Station above public road

c. Overlapping private properties

The most characteristic cases of private properties construct above private properties are the townhouse type houses and shop houses that probably do not apply for strata title under Strata Title Act, 1985, as shown in Figure 3a, 3b & 3c.



Figure 3: (a) & (b) Type of townhouse and Mix shop houses at below and residential houses at above

ISSUES REGARDING 3D PROPERTY

The basic land code in land administration adopted by many countries includes special legislation governing the operation of the cadastre system and land registration system and the definition with regards to the nature of land and real property. Every country's land administration is aimed at ensuring an undisturbed performance of the ownership rights. Thus, the ability to fulfil this task demonstrates the extent of society's ability to organise the legal base for land ownership. In this regard, legal relations must be precisely defined in land law, and also in other laws which are related to a lot, parcel and land parcel as well as property that is above ground surface. As pointed out by Ossko (2005), multilayer objects property has its own Unique Parcel Identifier (UPI) and physical description which make it possible for the property to be registered within the land registry and cadastre system.

1. The legal context

In the present land registry system, there are difficulties to register the ownership and other rights of real estate objects above or below the ground surface. The implication is that public facilities such as roads, streets etc. as well as objects that have been constructed above or below the ground surface of public domains have not been included as a part of the land registry. Some examples of the developments are public

utilities, underground tunnels, garages, metro stations, shopping complexes, business centres, skywalks, using of air space as well as the mining and marine rights. Furthermore, the delineation of surface parcels, spatial sub parcels and spatial parcels that are vertically layered require a spatial description that should include data defining the vertical and horizontal boundaries between these units.

2. Problems and constraints in current Malaysian Cadastre System for 3D property

The current 2D Malaysian Cadastre System is insufficient to meet the changes brought about by the booming yet complex high density developments in urban areas. Furthermore, there is a growing interest and need for using space above or below the ground surface for construction real estate property objects especially in metropolitan areas. In such developments, some of the buildings have been built on top of each other or crossing boundary edge (Hassan, 2008; Hassan, Abdul-Rahman and Stoter, 2006; Chong, 2006 and Ossko, 2005), but the legal changes in the land registry has not been changed in accordance with the complexity of the developments that are taking place. The growing request for changes mentioned earlier is bogged by constraints and difficulties to register the ownership of real estate properties created above or below ground surface. These problems need to be addressed and there is a need for a legal registration status of such property, so that one would be able to define and manage the juridical situation satisfactorily. Thus, information based on 3D is becoming absolutely necessary for land administration in Malaysia.

Finally, it seems that the problems associated with 3D property could be solved by proposing suitable legal and organisational methods. In Malaysia, there is a pressing need for a comprehensive legal, organisational and technical solutions required for the development of a 3D cadastre for 3D property. This would entail changes in certain land laws and legal documents such as Survey Regulation 1976 (Peninsular Malaysia) (Survey Regulation, 1976), National Land Code (Act 56) (National Land Code, 1965), Strata Title Act 1985 (Act 318) (Strata Title Act, 1985) and Survey and Mapping Director General Secular are fairly essential.

3. Purpose of 3D property legislation

The main obstacle in adopting 3D cadastre is that the legal and organisational systems are slow to change. Some countries have made progress in this respect and recent laws, especially from Northern European, have made it possible to register properties in 3D situation. However, none of these laws defines 3D cadastre clearly because the law only accepts that volume parcel can be established both below and above the main surface parcel (Valstad, 2006). Because of these, we have to find elements and contexts which are common in different systems by creating new guidelines even through changing the law for those countries facing the problem of 3D registration in cadastres and land registries.

Malaysia adopts a title registration system where the register contain info about the proprietor, encumbrances, express conditions, implied conditions, restrictions in interest, caveats and prohibited orders if any. However, not all imposed conditions and restrictions are stated clearly in the register as there are some that are provided by law and have to be complied by the proprietor. Meanwhile, the land register can be considered as the pillar of the record machinery in the Malaysian Registration System. The hardcopy land registry is now replaced by computerised land registry which

enables the proprietor to transfer, lease and change the land or grant rights of easement.

OBJECTIVES

In view of the Malaysian Cadastre System that is based on the 2D cadastre system, this research proposes that changes be made in the legislation of cadastral survey and mapping as well as registration of a 3D property. To realise this, the objectives of the research are (a) To review literatures associated with the execution and application for 3D property legislation in the Malaysian Cadastre System, (2) To identify the congruency of Department of Survey and Mapping Malaysia (DSMM), State Land and Mines Office (PTG), District Land Office (PTD) and Licensed Land Surveyor (LLS) for use in 3D property legislation onto Registry Title, Land Office Title, Certified Plan, Strata Title Act 1985 (Act 318) and National Land Code 1965 (Act 56) and (3) To make recommendations to DSMM, PTG, PTD and LLS for the amendments and performance of the 3D property legislation that are the fundamental principles for the Malaysian Cadastre System and propose changes that would facilitate the cadastral survey and mapping practices.

METHODOLOGY OF STUDY

1. Stage 1 – Secondary Data Collection

The current study will be based on the contents analysis of a collection of secondary data comprising of five types of legal documents. The legal documents data are Registry Title, Land office Title, Certified Plan, National Land Code 1965, (Act 56) and Strata Title Act 1985 (Act 318).

2. Stage 2 – Development of Instrument Based on Stage 1 and Pilot Study

The findings from the first stage secondary data analysis will be used to design an instrument that would incorporate the proposed changes derived from the findings of the initial secondary data analysis. The changes would be applied to local legal documents that would change 2D legislation to 3D legislation. The instrument used in the data collection would be a questionnaire that is divided into five areas of study. The respondents were asked about their acceptance of the recommended contents made onto the Registry Title, Land office Title, Certified Plan, National Land Code 1965 (Act 56) and Strata Title Act 1985 (Act 318). In the questionnaire, they would need to give the following responses such as agree, disagree or not sure. In addition, views from those selected respondents through focus group interview interviews will be also be analysed.

3. Stage 3 – Refinement of Instrument and Final Data Collection

After piloting the instrument and conducting Stage 2 data analysis, the findings will be used to refine the instrument further. The focus in this data analysis is to gather the respondents' feedback to help determine the needed changes for a 2D legislation to become a 3D legislation and the respondents' acceptance of the changes. The results and analysis from the pilot study process will be used to improve the initial recommendations proposed to change the 2D legislation to 3D legislation for property above ground surface in the content of Registry Title, Land office Title, Certified

Plan, National Land Code 1965 (Act 56) and Strata Title Act 1985 (Act 318). Selected respondents from the initial study will be asked to review the changes made to the instrument. Findings from the final stage will be highlighting the needed changes.

CONCLUSION

The research will focus on five types of legal documents. The legal documents are Registry Title, Land office Title, Certified Plan, National Land Code 1965, (Act 56) and Strata Title Act 1985 (Act 318). These legal documents are chose because they require the inclusive of 3D into the current 2D cadastre system for 3D property above ground surface and they are directly involved in the registration and cadastral survey of the multilayer property above ground surface. Besides, the eSSM is chose because it gives the 3D technical registration, cadastral survey and processing methods. This research would focus on 3D property legislation for multilayer objects above the ground surface but not below the ground surface in Malaysia because the existing law and guideline for stratum which under Part Five (A), Disposal of Underground Land, Section 92A to 92I (National Land Code, 1965) and Federal Lands and Mines Director General Secular (PKPTG/1, 2008) are already in existence.

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