CHAPTER 7

ANALYSIS AND DISCUSSION

7.1 Introduction

The chosen structure in this thesis to compare the differences in Malaysia and Sweden with regard to the development of multipurpose 3D cadastre for 3D property rights is to detail the tenure, registration and demarcation activities and rights necessary for such a development. In this respect, the comparisons are from the perspectives of the land surveyor and land administrator. As highlighted below, the comparisons of the concepts and principles found in Malaysia and Sweden are to some extent also related to the theory and literature segments in Chapter 2 and Chapter 3. This chapter is divided into three parts *viz*. tenure, registration and demarcation. The main points discussed are summarized at the end of this chapter.

7.2 Tenure

This part is structured as follows: ownership, easement or right of way, physical of land and property, land laws, subdivision, partition, amalgamation and reallotment, three-dimensional ownership (dimension on surface), three-dimensional ownership (dimension above surface), and three-dimensional ownership (dimension below surface) in **Malaysia** and **Sweden**. The table below gives an overview of examples of tenure in the two countries.

Item	Malaysia	Sweden
Ownership	Yes	Yes
Type of Title	Yes	Yes
Registered Owner	Yes	Yes
Provisional Strata Title	Yes	Yes/No
Easement or Right of Way	Yes	Yes
Physical of Land and Property	Yes	Yes/No
Land Laws	Yes	Yes
Subdivision, Partition, Amalgamation and	Yes/No	Yes
Re-allotment		
Three-dimensional Ownership (Dimension	Yes	Yes
On Surface)		
Common Rights	Yes	Yes/No
By-laws	Yes	Yes
Management	Yes	Yes
Method of Dispute Resolution	Yes	No
Termination and Reinstatement of Strata	Yes	Yes
Titles		
Three-dimensional Ownership (Dimension	Yes	Yes
Above Surface)		
Three-dimensional Ownership (Dimension	Yes	No
Below Surface)		

Table 7.1: Categories of tenure

7.2.1 Ownership

In **Malaysia** and **Sweden**, the ownership of land is decentralised and relegated to the State local authority. In **Malaysia**, land is State matter. The land administration organisational structure in Malaysia demarcates the power to manage land to the State authority as land is a State matter pursuant to the Federal Constitution of Malaysia. The State may alienate land in perpetuity or for a term of years, in consideration of payment or rent. Citizens own only the rights of the land. If you do not pay rent or premium to the State, the State authority may take back the land from you.

In **Sweden**, all land has a specific, identified owner. The landowner may be a natural or legal person, the State or a local authority. The majority of Sweden's land area inside the coastline is owned by natural persons. There is no definition of land ownership or compiled description of the rights and obligations that property rights convey to the individual landowner. As landowners, the State and local authorities are essentially on an equal footing with private citizens, but in their role as the bodies responsible for providing public services, they have a special status with respect to influence over land use. That all land areas have owners does not mean landowners have an unrestricted right to use the land as they wish.

7.2.1.1 Terms of Ownership

In **Malaysia**, the proprietor of a strata title property holds either a freehold or leasehold grant on the parcel/land parcel. It is possible to proceed with the transfer of rights of parcel/land parcel by using the sale and purchase contract document before the strata title is given. The Master land title is held by a land owner or the developer before strata titles are issued. Therefore, the land in a strata scheme can be subdivided into parcels and common properties, while the land in a strata scheme can be divided into land parcels.

In **Sweden**, on the other hand, the proprietor only holds freehold grant on the strata title property. In addition, site leasehold cannot be obtained for a strata title property. Under the existing rules, property owners have the right to exercise their freedom in transferring their property with user rights to another person. Similarly, anyone who owns a single-family house property has the freedom to rent out the house to anyone he or she wishes. The ownership of strata title property can be transferred before the completion of a building. Furthermore, land can be subdivided into individual and common properties.

7.2.1.2 Types of Title

While both **Malaysia** and **Sweden** give strata titles, the former allows strata titled properties for land under the strata scheme only. However, in **Sweden**, strata titles have been formulated to allow individual dwellings to have 3D property ownership.

7.2.1.3 Registered Owner

In **Malaysia**, after the issuance of strata titles, the master land title is held by the Management Corporation and every parcel/land parcel has a share in the common properties, while, in **Sweden**, the Management Association (Joint Property Association) is responsible for the common properties.

7.2.1.4 Provisional Strata Title

In **Malaysia**, the Malaysian statute under the Strata Titles Act 1985 (Act 318) defines a provisional block as a block in respect of a building proposed to be, or in the course of being, erected on a building or land, for which a separate provisional strata title is applied or is to be registered, or has been registered. It allows phase development and helps to overcome financial burdens faced by the developers. The conditions for phased development also allows purchasers to obtain provisional strata titles in the earlier phases without having to wait for the whole strata scheme to be completed. In turn, this will enable financial institutions to obtain better securities from their borrowers.

Upon the completion of all the units within the provisional block, the original proprietor of the building must make an application for the issuance of separate strata titles to the completed parcels, within six months from the date the building is certified by the public or local authority to be fit for occupation or use. Under this provision, the purchasers of the provisional block are assured the issuance of strata titles without further delay. An extension period would be granted only one time, and for a period not exceeding 3 months.

In **Sweden**, the forming of provisional strata titled property is permitted only if there is a prerequisite to guarantee the financing or the construction of the building, and if there is good reason to believe that the building's intended purpose would be realised in the near future. There are different conditions for issuing the title because there is no fixed period for the delivery of possession. In the case of a provisional strata titled property, the cadastral authority should decide on the duration of the building completion, in accordance with the deadlines for building permission. Provided there is a specific reason, the deadline may be extended.

7.2.2 Easement or Right of Way

In both Malaysia and Sweden, there is provision for using easement or right of way to enjoy the rights of other proprietors. In Malaysia, private easement means any right granted by one proprietor to another, in his capacity as such and for the beneficial enjoyment of his land. The rights which can be granted as easements are the rights to do something in, over or upon the servient land, and the rights that something should not be so done. There are several conditions under this private easement, such as the said rights do not include any right to take anything from the servient land and prevent the existence as an easement of any right involving the placing and maintaining in or upon the servient land of any installation or other works. No easement affecting the enjoyment of land which is subject to any lease, tenancy or charge shall be capable of being granted without the consent of the person or body for the period being entitled to the benefit. No cross-easements of support in respect of party wall may be granted by adjacent proprietors except in respect of a wall which stands on their common boundary.

There is also a registrar right of way in Malaysia. The Land Administrator may create rights of way on the land, which shall be known as Land Administrator's rights of way. A Land Administrator's rights of way may be a right of way created for the benefit of the State authority or the proprietor or occupier of any alienated land (private right of way) or a right of way for the benefit of the public (public right of way). A private right of way created for the benefit of the State authority, the proprietor or occupier of alienated land shall authorise persons acting with the expressed or implied consent of the State authority to pass and re-pass between reserved land or forest reserve and a public terminal. Meanwhile, a public right of way shall authorise the public to pass and re-pass between any specified area of land and a public terminal.

In **Sweden**, a private easement can be defined as a right in the servient property unit, which may be granted to the owner of the dominant property unit to enjoy a certain aspect of the servient property unit. There are few conditions under this private easement where every easement involves two separate pieces of land. Easement is a property interest giving its owners a right or rights over the land of another. An easement must be of importance to the dominant property unit and this importance has to be enduring and calculated to promote appropriate land use. Easement may be defined as a privilege without a profit being acquired by one landowner for the benefit of his land over the land of another. An easement is protected against any third party. It should be exercised in the manner which least encumbers the object of the easement and it also must be space limited. Easement cannot be granted in favour of a person, nor can an easement be partly or wholly transferred separately from the property unit it belongs to. The right in one property unit may be granted to the owner of another property unit to enjoy or to use a certain aspect of the servient property unit or building or other facility belonging to the same property unit. An easement is granted in writing by the owner of the servient property unit.

Sweden also applies private right of way. It is a road or path over private land, along which the public have the right to walk. It allows free access across another's land, the right to stay overnight and the right to pick berries, flowers and mushrooms anywhere, provided that there is no damage done to the owner's property. It excludes access to private parks, croplands and gardens. On the other hand, the public right of way also includes the right to drain or supply water and other utility features such as sewage, telephone line, cable television line, gas pipe and electric supply.

7.2.3 Physical Limitations of Land and Property

In **Malaysia**, land is limited to air space, on surface and underground. Land includes the surface (including air space) of the earth and all substances forming that surface, the earth below the surface and all substances in the surface, all vegetation and other natural products, whether or not requiring the periodical application of labour to their production, and whether on or below the surface, all things attached to the earth or permanently fastened to anything attached to the earth, whether on or below the surface, and land covered by water.

In Sweden, land is limited to air space, on surface; there is no mention of stratum. All land is subdivided into real property units. A real property has either horizontal, or horizontal and vertical boundaries. Buildings, forests, and bodies of water are classified as real property. Property units include buildings, utilities, fences and other facilities constructed within the property units for permanent use, standing trees and other vegetation, natural manure. Any building or facility constructed outside the property unit, if it is intended for permanent use in the exercise of an easement in favour of the property unit, does not belong to the property unit where it is situated. Hence in Sweden, a building includes fixtures and other things with which the building has been provided, if devoted to permanent use for the building or part thereof, such as a permanent partition, lift, handrail, water pipe, heating, lighting or other features with cocks, power plugs and other suchlike equipment, central heating boiler, heating radiators, heater, tiled stove, inner window, awning, fire extinguisher, civil defence material and key.

7.2.4 Land Laws

In Malaysia, there are:

- (i) Laws for land surface:
 - (a) National Land Code 1965 (Act 56) The National Land Code 1965 (Act 56) was formulated based on existing practices in the 1950s until the pre-1965 era before it came into effect on 1st January 1966.
- (ii) Law for strata titles:
 - (a) Strata Titles Act 1985 (Act 318) An Act to facilitate the subdivision of building or land into parcels and the disposition of titles.

- (iii) Law for management of building:
 - (a) Building and Common Property (Maintenance and Management)
 Act 2007 (Act 663) An Act to provide for the proper maintenance and management of buildings and common property.
- (iv) Law for tax:
 - (a) Real Property Gains Tax Act 1976 (Act 169) An Act that provides for the imposition, assessment and collection of a tax on gains derived from the disposal of real property.
- (v) Law for planning and development:
 - (a) Town and Country Planning Act 1976 (Act 172) An Act that provides for the proper control and regulation of town and country planning in Peninsular Malaysia.
 - (b) Local Government Act 1976 (Act 171) An Act to revise and consolidate the laws relating to local authority. It is expedient for the purpose only of ensuring uniformity of law and policy to make a law with respect to local government.
 - (c) Street, Drainage and Building Act 1974 (Act 133) An Act to amend and consolidate the laws relating to street, drainage and buildings in local authority areas in West Malaysia.
 - (d) Uniform Building By-Laws 1984 (G.N.5178/85) An Act that provides for the proper control and regulation of uniform building by-laws in West Malaysia.
- In **Sweden**, there are:
- (i) Laws for land surface:
 - (a) Land Code 1970 The Land Code is the dominant act for real property, regulating conveyancing, user rights and mortgages.
 - (b) Utilities Easement Act 1973 Under this Act, a party wishing to use a space within a property unit for a utility or other device can obtain the right to do so (a utility easement).
 - (c) Joint Facilities Act 1973 Under this Act, a facility can be established which is common to several property units and serves a purpose of enduring importance to a joint facility.

- (ii) Law for strata titles:
 - (a) Real Property Formation Act 1970 The process of division of territory into the units of the immovable property is called property formation and its procedures are regulated by a special law in Real property Formation Act.
 - (b) Apartment Register Act 2006 This Act contains provisions concerning a register of dwelling units (Apartments Register).
- (iii) Law for management of building:
 - (a) Joint Property Units (Management) Act 1973 An Act to provide for the proper management of joint property unit, other land jointly belonging to the owners of the hideage-rated real property units in a parish, an easement or other special right which several property units have in common and joint water unit.
- (iv) Law for tax:
 - (a) Property Tax Assessment Act 1979 The Tax Assessment Act applies for the determination of the basis for, among other things, the following taxes and charges: municipal and State income tax (for example, questions regarding deductions for travel to and from work), State wealth tax (for example, questions regarding the value of shares or bonds) State real property tax (for example, questions regarding the tax assessment value of a summer cottage).
- (v) Law for planning and development:
 - (a) Planning and Building Act 1987 This Act contains provisions on the planning of land and water areas as well as buildings. The Planning and Building Act, together with the Environmental Code, governs physical planning. The National Board of Housing, Building and Planning monitors how legislation on planning and building is applied, and if necessary also guides application with regulations and general guidelines.

7.2.5 Subdivision, Partition, Amalgamation and Re-allotment

Firstly, with regard to subdivision of land, the proprietor of any alienated land held under Registry or Land Office title may sub-divide the land into two or more portions to be held under separate titles. Meanwhile, under subdivision of parcel/land parcels under strata title, a building having two or more storeys on alienated land and any alienated land having two or more buildings held as one lot under the final title can be subdivided into parcels, or accessory parcels, or common properties. A parcel proprietor may divide his parcel/land parcel into two or more new parcels/land parcels, each to be held under a separate strata title.

Secondly, under partition of land, any alienated land which is held under Registry or Land Office title by two or more persons as co-proprietors may, by agreement between those persons, partition the land into two or more portions to be held under separate titles.

Finally, under amalgamation of lands, any person in whom two or more contiguous lots of alienated land are vested under separate Registry or Land Office titles, may amalgamate those lots into one to be held under a single title. Meanwhile, under amalgamation of parcels/land parcels under strata title, the proprietor may amalgamate two or more contiguous parcels/land parcels to form one parcel/land parcel to be held under a single strata title, provided they share at least one common boundary, consisting of a floor or ceiling. However, **Malaysia** does not practise reallotment; there is only conversion and change of the land use condition.

In **Sweden**, first, under subdivision of property unit, an area is separated from a real property to create a new, independent real property. The new real property has its own designation. The new real property's layout and size will be adapted to its intended use. In most cases, the real property can be made free from mortgages. This means that the real property will not be encumbered by mortgages taken on the original real property. Through subdivision, a certain curtilage of a property unit or the share of a property unit in a joint property unit may be segregated to constitute a property unit in its own right or to be included in an amalgamation. Under the subdivision of parcel/land parcels with strata titles, the ownership of land can be divided vertically, while the ownership of condominium or multi-storeys building can be subdivided horizontally. Such subdivisions are common as the building of more than one storey enables one unit of operation to overlie and to be independently occupied.

Second, under partition of property unit, a jointly owned real property is divided in conformity with the ownership. The new real properties receive new designation. In partitioning, a separate lot is defined for every co-owner requesting it.

Third, under the amalgamation of property units, two or several properties that have the same owner and the same ownership conditions are combined to form one new real property which is given a new designation. When there is amalgamation of parcels/land parcels under strata title, the proprietor may amalgamate two or more contiguous 3D property units or 3D property spaces to form one 3D property unit or 3D property space to be held under a single Land Registry, provided they share at least one common boundary, consisting of a floor or ceiling.

Finally, under re-allotment, an area is transferred from one real property to another. This can involve a whole real property or part of a real property. A new easement is created, changed or cancelled. A joint property is created, changed or removed. Fixtures are transferred from one real property to another. A real property's fixture can, for example, be a building or a jetty.

7.2.6 Three-dimensional Ownership (Dimension On Surface)

Dimension on surface in both **Malaysia** and **Sweden** comprises building and land. In **Malaysia**, a master lot can be subdivided into smaller lots for the purpose of establishing a strata scheme. Subsequently, the strata scheme lot can be subdivided

into parcels and land parcels. Each parcel and land parcel can consist of an individual apartment or house. A land parcel means a unit delineated within the lot in which is comprised a building of not more than four storeys held under a strata title, which may have a shared basement, comprises accessory parcels and common property. A building intended for subdivision into parcels means any building or buildings having two or more storeys in a development area and intended to be subdivided into parcels; and any development area has two or more buildings intended to be subdivided into land parcels.

In **Sweden**, the requirement for the formation of a strata title property is that it must be a cohesive unit of at least three buildings, with the parcel utilised for residential purposes within the last eight years. Hence, strata buildings can only be formed in newly constructed buildings or buildings newly converted to residential use from office use.

7.2.6.1 Common Rights

In **Malaysia**, common property for strata title scheme is the parcel/land parcel not comprised in any parcel or provisional block in strata scheme. All land except land that forms a parcel/land parcel and part of an accessory parcel is included in a strata scheme as common property. Here the common rights include the structural elements of the building, stairs, stairways, fire escapes, entrances and exits, corridors, lobbies, fixtures and fitting, lifts, refuse chutes, refuse bins, compounds, drains, water tanks, sewers, pipes, wires, cables and ducts that serve more than one parcel. It also includes the exterior of all common parts of the building, playing fields and recreational areas, driveways, car parks and parking areas, open spaces, landscaped areas, walls and fences, and all other facilities and installations and any part of the land used or capable of being used or enjoyed in common by all the occupiers of the building. For Management purposes, common facilities are identified as part of the strata scheme that falls under the Management Corporation's responsibility. Part of the common property can be granted by agreement and transferable by Management Corporation to any parcel/land parcel proprietor for exclusive use and enjoyment of part of the common property or special privileges. The Management Corporation may designate limited common property and create one or more subsidiary management corporations only for the purpose of representing the different interests of parcel proprietors.

In **Sweden**, common rights are resources which are common properties, and are jointly owned held in common by a limited group of individuals. That group is entitled to exclude other individuals from using the property, and use of the property is decided and supervised by the group. A facility can be established which is common to several property units and serves a purpose of enduring importance to a joint facility. Joint facility is intended to fulfil the need of several property units. For common right, general common property includes the parts of a condominium building that are reserved for the use of all, whereas limited common property is for the use of just one or some of the owners. A joint facility can also be managed through termed part-owner management, in which case all activities are subject to the complete agreement between the part-owners of the facilities. A joint facility can be managed by a joint property management association, formed by the owners or by part owner management.

7.2.6.2 By-laws

In **Malaysia**, By-laws in a subdivided building or land regulate the management, administration and enjoyment of the said building or land. By-laws shall be in force for all purposes in the subdivided building or land, from the opening of the book of the Strata Register and shall not be amended by the management corporation unless by making additional by-laws, or amendments to such additional

by-laws by special resolution. By-laws are primarily to clarify the duties expected of a proprietor within a subdivided building or land and the prohibitions imposed on him, as well as to ensure the reasonable use and enjoyment of the common property in relation to other proprietors. The by-laws in force in the subdivided buildings or lands are binding on the management corporation and all the proprietors.

The Management Corporation or Joint Management Body shall keep a record of the house rules in force from time to time. In the jurisdiction aspect, the by-laws which are in operation in respect of the building or land intended for subdivision into parcels or the subdivided building or land, and the common property, is for regulating the control, management, administration, use and enjoyment of the building or land intended for subdivision, and the common property.

In **Sweden**, the provisions given by statutes are often not considered sufficient when it comes to the more detailed management of a condominium scheme. Hence, there are special rules in the by-laws to adapt to the particularities of each scheme; these rules are binding on owners as well as other occupants within the scheme. By-laws contain rules regarding the use and enjoyment of the apartment and of the common property. Since these rules often are decided by the developer or/and owners, it is important that they are reasonable and not arbitrary.

The Management Association shall keep a record of the house rules in force from time to time, while the jurisdiction aspect of by-laws regulates management and administration of the condominium scheme, along with the rights of use for the owners, as well as protects the interests of the developer and credit institutions.

7.2.6.3 The Management

In Malaysia, the forming of Management Corporation is to facilitate the proper control and management of common property for the benefit of all the proprietors. Under the provisions of the Malaysian strata title, a parcel/land parcel proprietor automatically becomes a member of Management Corporation when a parcel/land parcel is registered in his name. The Joint Management Body acts on behalf of a Management Corporation that has not yet been established. The ownership of the parcel/land parcel is issued by separate documents of strata title while the original land title is registered under the Management Corporation.

In term of the powers of the Management Corporation, it is a separate legal entity and, like a company, has perpetual succession, a common seal and may hold property, sue and be sued in its own right and is not subject to the Companies Act. The registration of the Management Corporation should be mandatory as the corporation is a legal entity. The main duty of the Management Corporation is to look after the maintenance of the building and common property, either managed by managing agents or elected council members.

The council of Management Corporation and the Joint Management Body shall consist of not fewer than three and not more than fourteen proprietors, who shall be elected at each annual general meeting and shall cease to hold office at the next annual general meeting. The councils of the Management Corporation and Joint Management Body are decided by vote. The proprietors who are elected at a general meeting can assume the duties and responsibilities of a management corporation. Alternatively, a professional property company or person can be employed to carry out the work for the management corporation. Here, the number of share unit determines the voting rights of the proprietors.

In **Sweden**, a joint property association is formed for the management to secure the necessary rights required for a strata title property. An owners' association is defined as a body established with the legal authority to act on behalf of all the owners. The ownership of joint property unit is issued by a separate Land Registry.

In terms of the power of Management Corporation, a Management Association is considered a necessary feature for condominiums, and is essential to safeguard the interests of individual owners, the common ownership, as well as national and municipal interests. The association is considered indispensable for the management of the scheme. The association and membership is regarded as so important that it forms a part of the condominium unit. The association is a legal body that has the authority to act on behalf of all the owners of the condominium. It is a private non-profit organisation with full democracy. It is usually compulsory for all owners of the condominium units to be members of such an association, as membership in the association is considered as being a legally inseparable part of the ownership of the condominium unit.

The registration of the Management Association is mandatory where the association is a legal entity. The management association is responsible for carrying out the duties of the association and implementing specific decisions made during general meetings. The Management Association board can also engage professional management to assist the association. Certain responsibilities may also be delegated to committees that are constituted of owners, for instance election, auditing as well as environmental and activity committees.

A Management Association board is elected by the members. There can be an administrator adopted by the board, a legal person who is contractually charged with the day-to-day management of the owners' association, i.e. to take care of the maintenance and operation of the common parts, as well as all matters of common interest. The members of the association decide by vote. The management of the condominium can be carried out by owners themselves i.e. those who have been elected at the Annual General Meeting, or a professional person or company can be contracted to carry out the management. Here, the shared rights within a strata title scheme, collective decision-making and voting require some form of allocation based on a participation quota, fraction of undivided interest or proportion of the common interest or unit entitlement.

7.2.6.4 Method of Dispute Resolution

In the Malaysian strata scheme, the Management Corporation and Joint Management Body have to take the initiative to address conflicts. However, they often lack the required toughness or mediation skills to resolve disputes. Furthermore, their impartiality is often suspect because of conflict of interest or inconsistency in their application of house rules. The doors of the civil courts are naturally open to hear these disputes. However, because of excessive delays, the costliness and technicalities of the adversarial litigation system and the ill will and hatred generated between the combating litigants or courts are often perceived to be an inappropriate forum for the settlement of disputes in strata title schemes. Hence, from 2012, the Strata Management Tribunal is tasked with settling disputes amongst the parcel/land parcel proprietors in strata schemes which have already been issued with strata titles. Disputes amongst the parcel/land parcel proprietors and the Joint Management Body can be settled through the mediation of the Commissioner of Buildings (COB), deputies or other officers who have been appointed by the State authority in respect of local authority area or any other area for the purpose of administering. The proprietors and the management can use the Commissioner of Building to settle disputes while waiting for the strata titles.

In **Sweden**, there is no Alternative Dispute Resolution, such as the Strata Management Tribunal in Malaysia. Sweden only uses courts procedure (regular court) to settle disputes between condominium owners or between the owners and the manager or the equivalent. However, court procedures are not always the most convenient way to settle such disputes, as they can be too cumbersome and expensive. It is common to provide for an easy access to a court procedure, in the first instance, normally involving the regular court within the district where the ownership scheme is situated.

7.2.6.5 Termination and Reinstatement of Strata Titles

In **Malaysia**, when a subdivided building is damaged but not totally destroyed, a court of competent jurisdiction, on the application of the Management Corporation, a parcel proprietor, or a registered chargee of any parcel, may order the reinstatement or the continued use of the building in whole or in part. Strata scheme may include provisions for the transfer of the interests of the proprietors of parcels which have been wholly or partially destroyed to the other parcel proprietors in proportion to their share units. After the termination of subdivision, the Management Corporation shall become the proprietor of the damaged lot as the trustee of the former proprietors.

In **Sweden**, however, there is a provision for the termination of a strata title scheme. When buildings are destroyed, damaged or are badly deteriorating in any way, the strata titles cannot continue to exist. Thus, laws can provide for the termination of the strata title scheme, reconstruction of the buildings or partial termination or reconstruction with re-allocation of the remaining buildings. To prevent the termination of such 3D properties, there are special provisions for compulsory re-allotment. The laws can provide for the termination of the strata title scheme, reconstruction with re-allocation of the strata title scheme, reconstruction with re-allocation of the strata title scheme, reconstruction of the buildings or partial termination of the strata title scheme, reconstruction of the buildings or partial termination of the strata title scheme, reconstruction of the buildings or partial termination of the strata title scheme, reconstruction of the buildings.

7.2.7 Three-dimensional Ownership (Dimension Above Surface)

Both **Malaysia** and **Sweden** have their own legislation for properties with dimensions above surface. In **Malaysia**, most of the sections in the National Land Code 1965 (Act 56) were enacted based on the law on dimension on surface. However, Section 75A to Section 75G deal with the dimension above surface and is related to the disposal of land other than by alienation, and permission to use air

space above State land and reserved land. The discussion relates to the power to permit use of air space above State land or reserved land; the application of permits; the issue of permit on approval; conditions of permits; the deposit or security in respect of permit; and the power to cancel permit. Owners of structures for the building in strata scheme such as the balcony, bay window, air condition slap, planter box can apply for the use of air space but only for 21 years.

In Sweden, buildings would usually be built on the surface but the structures in their entirety may be located below the surface. Boundaries are set based on what is appropriate in each case, which can also include the air space. Furthermore, boundaries should not be so constricted to the extent that they are not able to include smaller objects that naturally complement a building, such as exterior gutters, rainwater pipes, lamps and dishes. In addition, it may be usual for a room to be constructed outside the building's actual design for the use or management of the utility, so as to eliminate the need to encroach onto the neighbouring property. This can be in the form of the maintenance of gutters and downpipes, window cleaning and so on. In addition, for sky-bridge between two buildings, the right of support is based on the main structures of those two buildings.

7.2.8 Three-dimensional Ownership (Dimension Below Surface)

Malaysia has provisions for multiple ownerships of underground land under lease for property deals with dimensions below surface. Underground land means land that lies below the surface of the earth while stratum means a cubic layer of underground land. According to the National Land Code 1965 (Act 56), the extent of the exclusive use and enjoyment of the land below that surface is limited only to such a depth reasonably necessary to the lawful use and enjoyment of the land.

The State authority may specify the depth up to which the underground land directly and immediately below the alienated land may be used, and different depths

may be specified in respect of different parts of such underground land. Provided that regulations made under this part provide for the minimum depths, the depth shall not be less than the minimum depth provided for the class, description of location of land to which the alienated land belongs, or where it follows the regulations made by the Minister. There are three types of minimum depth according to category of land use, *viz.* minimum depth for land use in the agriculture category must be at least 6 meter, minimum depth for land use in the category of residential building must be at least 10 meter, and minimum depth for land use in the industry category must be at least 15 meter.

There are three conditions for alienation of underground land. First, the State authority can alienate State land to anybody what is deemed State land (first layer of land). The second layer of land under the first layer State land is still owned by the State and the land below the second layer State land can be alienated with fixed depth (third layer of land). Figure 7.1 shows the conditions of land alienation.

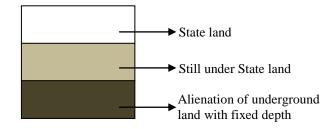


Figure 7.1: Alienation of underground land with fixed depth

Second, in the alienated first layer land that already has a fixed depth, an alienation of the second layer underground land below alienated land to any person or organisation can be carried out with the condition that the third layer of the land underground land still belongs to the State authority. Figure 7.2 shows this condition of land alienation.

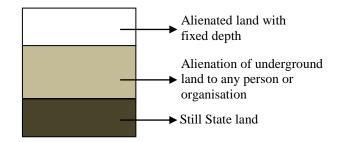


Figure 7.2: Alienation of underground land below alienated land that already has a fixed depth

Finally, there is alienation of land where the depth is not fixed in the alienated first layer land. The alienation of the second layer of underground land below the first layer of alienated land can only be to the owner of the land surface with the third layer of underground land still State land. Figure 7.3 shows this condition of land alienation.

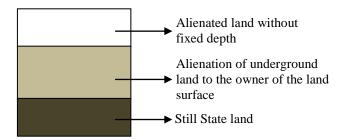


Figure 7.3: Alienation of underground land below alienated land without fixed depth

In **Sweden**, in the case of a less extensive underground facility, easements can be appropriate as the space may also be used for other purposes. Following this, a related issue is the amount of ground floor space that a 3D property should encompass. However, this situation only applies to a building that occupies the whole related lot without having any external support which requires piling.

7.3 Registration

This part is structured into the following sections, *viz.* land administration system, content in registry, category of land use, title registration system, issue of document of title and the interoperability of systems in **Malaysia** and **Sweden**. The table below gives an overview of examples of registration in the countries compared.

Item	Malaysia	Sweden
Land Administration System	Yes	Yes
Land Administration System	Yes	Yes
(Physical)		
Land Administration System	Yes	Yes
(Cadastral)		
Content in Registry	Yes	Yes
Category of Land Use	Yes	Yes
Title Registration System	Yes	Yes
The Register Title	Yes	Yes
Data Information (Textual)	Yes/No	Yes
Data Information (Spatial)	Yes/No	Yes
Issue of Document of Title	Yes	Yes
Interoperability of the System	No	Yes

Table 7.2: Types of registration

7.3.1 Land Administration System

In **Malaysia**, at State level (Peninsular Malaysia), the District Land Office (PTD) and Land and Mines Office (PTG) are responsible for the registration of titles. However, at the federal level (Peninsular Malaysia), the Department of the Director General of Land and Mines (JKPTG) is responsible for managing the land in accordance with the provisions of the Federal Government under the Federal Land Commissioner Act 1957, whereby the Federal Land Commissioner is given the power to execute dealings pertaining to the acquiring of and disposing of lands for

the use of the Federal Government. Meanwhile, at the federal level (Peninsular Malaysia), the Department of Survey and Mapping Malaysia (DSMM) is responsible for cadastral surveys and mapping. The contents in the Registry Title and Land Office Title are mainly based upon documents and records kept at the PTD and PTG.

In Sweden, National Land Survey (NLS) (*Lantm äteriet*) is the federal agency responsible for cadastral surveys, property formation acts, registration of properties, rights and encumbrances through its local offices and for dealing with any related information about real property. The Land Registration Division handles transactions concerning registration of ownership, mortgages and other registration transactions as well as note transactions. Cadastral Survey Offices carry out cadastral procedures. In addition to the central government authority there are a number of local government land survey and cadastral organisations. The contents in the Property Register and Land Register are mainly based upon documents and records kept at the Property and Land Register Authorities.

7.3.1.1 Land Administration System (Physical)

In **Malaysia** the land administration system (physical) provides security and simplicity to all dealings with land. It establishes and certifies, under the authority of the government, the ownership of an indefeasible title to land and simplifies, hastens and cheapens all land dealings. The title is conclusive proof that the person mentioned therein is the owner of the land described therein. In **Sweden**, the handling of the Property Register and Land Register is automated into one EDP-system. The EDP-system has replaced the old book which was previously used. This non-graphic system is called the Land Data Bank System.

In **Malaysia**, in the land administration system for cadastre, a valid title requires an accurate description of boundaries; as such cadastral surveys play an important role in Malaysia. On the other hand, in **Sweden**, the Property Register is

the basic administrative register for real properties in Sweden. The register includes a property index map. This map is kept separately from the textual register.

7.3.2 Content in Registry

In **Malaysia**, the registry contains information on fiscal (premium), juridical (general, address, registration of ownership, express and implied conditions as well as restriction of interest), and physical boundaries (cadastral map). In **Sweden**, the registry also contains information on fiscal (tax assessment) and juridical (general, address, building, registration of ownership) matters as well as physical limits (index map).

7.3.3 Category of Land Use

In **Malaysia**, mixed developments are allowed. A multi-storied building may be for residential and or commercial purposes, parking and shopping. However, in **Sweden**, when the development is for residential purpose, the multi-storied building is used only for that specific purpose. Strata title properties are permitted in new housing constructions.

7.3.4 Title Registration System

Malaysia uses the Torrens System of Land Title Registration System while Sweden uses the Swedish Land Title Registration System for all titles registration. Land registration and cadastral survey are compulsory for both countries. In Malaysia the landowner holds an indefeasible title without guarantee while Swedish legislation establishes certainty of ownership and rights to land with guarantee.

7.3.4.1 Data Information (Textual)

In **Malaysia**, the comprehensiveness of data information, from the textual aspect, is the responsibility of the State authority; there is no centralisation of textual and spatial data information. The land register furnishes all necessary information, the basic ones being the name of the proprietor and the actual land alienated through a description of its area and location, and the survey plan showing the limits. Other information include those on owner's rights, encumbrances, express conditions, caveats and prohibitory orders, if any. However, not all imposed conditions and restrictions are stated in the register; there are some that are provided by law and have to be abided by the proprietor. In addition, the register does not contain information on bankruptcy or restoration orders in Malaysia.

On the other hand, in **Sweden**, the comprehensiveness of data information, from the textual and spatial aspects is the responsibility of the National Land Survey (*Lantmäteriet*), with the data being centralised by the federal government. The Property Register contains records of the area of real properties, and the property designation. The register also contains further information on easements, land-control and zoning regulations, archive references; the centroid coordinates for each parcel of the property, and the street address of the properties. The Land Register contains information about the legal owners' names, addresses, and civil registration

numbers. It also contains information about mortgages, encumbrances, and notifications from other authorities on things such as bankruptcy, restoration orders etc.

7.3.4.2 Data Information (Spatial)

In **Malaysia**, the comprehensiveness of data information regarding the spatial aspect is with Department of Survey and Mapping Malaysia (DSMM), and there is no centralisation for the spatial and textual data information. The land register only contains maps depicting all land parcels (i.e. surveyed) together with their unique lot numbers or identifiers, as well as the certified plan numbers for ease of reference and search. The building information kept by the Valuation and Property Management Department of the State local authority. Data such as buildings being used for residential, commercial or industrial purposes, the locations of buildings, and the valuations of buildings are not linked with the spatial data from DSMM.

In **Sweden**, the comprehensiveness of data information for the textual and spatial aspects is the responsibility of the National Land Survey (*Lantmäteriet*), which is centralised under the federal government. The Register of Buildings consists of an identity (connected to the property identifier) for each building used for residential, commercial or industrial purpose, linked to data on the situation of the building, the use of the building, and the value of the building. The register is kept up-to-date through links with the Property Assessment Register and the building permit processing units in the municipalities.

7.3.5 Issue of Document of Title

In **Malaysia**, a title can be issued through charge, lease, easement, caveat and lien. The introduction of a qualified title is to enable land to be alienated in advance of survey; to enable a title to be issued in advance of a survey; to the individual portions into which any alienated land is to be subdivided or partitioned; and to the combined area to be formed by the amalgamation of any such lands. For final title, the Registry Title is the register of grants and the register of State leases while Land Office Title is the *mukim* registers.

In **Sweden**, a title can be issued through leasehold, tenure, building lease, easement, right to electric power and lien. The market receives information about rights that are to the advantage of, or encumber a property unit, such as a lease or an easement. For Land Registry, there are seven land registries in Sweden, organised as parts of certain district courts (*tingsrätter*). There used to be a registry at every court, but they have been centralised. In charge of the Land Registry is a registrar (*inskrivningsdomare*), who is a judge of the court where the registry is situated. The registrar supervises the registry and handles difficult applications, but the main load is carried out by non-legal staff.

7.3.6 Interoperability of the System

In Malaysia, the juridical Computerised Land Registration System (CLRS), under the purview of the PTG and the PTD, stores information on land ownerships, land tenures and so on. The physical Cadastral Database Management System (CDMS) operated by the DSMM, stores information about land attributes, spatial objects, etc. These two systems, being decentralised, work separately. In Sweden, because all data are kept in the Land Data Bank System, the system is centralised. For juridical purposes, all land is divided into real property units that are subject to compulsory registration in the Land Data Bank System. The Land Data Bank System provides for constitutional openness and public accessibility. Documentary records can be accessed online for inspection purposes free of charge but there is a fee for copies. The Land Data Bank System also contains information from other registers, such as from the Real Property Assessment Register that includes tax assessment values, properties of tax payers and types of land use. Another data source is the Population Register that provides the population density code, and the Register of Building that provides the identification numbers, addresses, locations, owner names, types of use, and values of buildings.

From the physical aspect, the cadastral surveyor decides whether the cadastral procedure can be carried out in consultation with the local building committee, the county administration board and other relevant authorities. It may be necessary to inspect the area to demarcate and survey new boundaries. Sometimes, it may be necessary for the cadastral surveyor and the involved parties to meet before a decision is taken. The cadastral surveyor makes the decision regarding changes to the subdivision into properties. The decision is documented on a map and in documents, copies of which are sent to the involved parties.

7.4 Demarcation

This part is structured into the following sections: coordinate system, cadastral survey, cadastral map, computerisation and boundary. The table below gives an overview of examples of demarcation in the countries compared.

Item	Malaysia	Sweden
Coordinate System	Yes/No	Yes
Cadastral Survey	Yes	Yes
Cadastral Map	Yes	Yes
Computerisation	Yes	Yes
Boundary	No/Yes	Yes

Table	7.3:	Types	of	demarcation
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7.4.1 Coordinate System

In **Malaysia**, there are no 3D coordinates (x, y, z) for the boundary point. The Malaysian cadastral survey and mapping is based on the Malaysian Rectified Skew Orthomorphic (MRSO) and Cassini Solder Coordinate System for mapping in Peninsular Malaysia. Each State has its own origin and reference meridian of Cassini Solder Coordinate. The physical characteristics of the MRSO coordinate system preserve the shape of spatial features for mapping topographic layers, while the Cassini Solder Coordinate System preserves distances between spatial features for mapping cadastral lots based on origin within each State in Malaysia.

In **Sweden**, the 3D coordinates (x, y, z) are given for the boundary point. SWEREF 99 is a National Coordinate System. It is the Swedish manifestation of ETRS 89, a global 3D coordinates system defined by the 21 fundamental points in the national network of fixed reference stations. The National Land Survey of Sweden is the agency responsible for the geodetic systems. With SWEREF 99, Sweden has done much to harmonise with its closest neighbours as well as the rest of Europe. The introduction of this system at the local level also ensures national uniformity. The introduction of SWEREF 99 has the following effects:

- (a) It is easier to use with the aid of the Global Positional System (GPS) technology;
- (b) The need for transformation is minimised; and
- (c) The new system allows efficient transmission of data from different organisations.

7.4.2 Cadastral Survey

For the demarcation for land surface in **Malaysia**, land shall not be taken to have been surveyed until its boundaries have been determined by right-lines and demarcated on the surface of the land by boundary marks, with the area enclosed by its boundaries calculated. The two-dimensional plan does not show the whole boundary in coordinates. However, every point has coordinates in the Digital Cadastral Database System.

Meanwhile, for the demarcation for land surface in **Sweden**, a boundary lawfully determined follows the course marked on the ground in due order. If the marking can no longer be ascertained, the boundary shall follow the course which, in the light of a cadastral plan together with documents, possession and other circumstances, was presumably intended. If the course of the boundary has not been marked on the ground in due order, the boundary shall follow the course shown by the plan and documents. If a boundary has not been lawfully determined, the bounds or other markings anciently deemed to mark the boundary shall apply. A boundary having resulted from expropriation or suchlike compulsory purchase shall have the course which, in the light of a document of acquisition, possession or other circumstances, was presumably intended. In three-dimensional reorganising, demarcation can be marked on the ground to denote a volume that is delimited by the soil surface.

7.4.3 Cadastral Map

In **Malaysia**, the authenticated cadastral map for Malaysia is called the Certified Plan (CP). There are three types of certified plans. Firstly, the normal land parcel Certified Plan is prepared in a standard format that permits the presentation of useful technical data such as bearings, distances, areas, lot numbers, boundary marks, abuttal's of adjoining parcels and the coordinates of two extreme boundary marks as well as other relevant information when dealing with strata and stratum alienations. The Certified Strata Plan contains the parcel information like floor areas, parcel numbers, boundary dimensions where the buildings reside in a strata scheme and additional information on the height of the building, number of floors/levels and the strata parcels. Likewise, the Certified Stratum Plan provides additional information on the depth and mean sea level of the underground volumetric parcels. However, no Certified Stratum Plan has been submitted until recently due to lack of knowledge on cadastral survey and registration of stratum objects.

In **Sweden**, the Cadastral Index Map has played an important role since the beginning of the century. Today the responsibility for building up and maintaining the National Cadastral Index Map is shared between the National Land Survey of Sweden (NLS) and Municipal Cadastral Authorities. The cadastral index map shall show:

- (a) Boundaries and designations of enduring property units and joint property units;
- (b) The areas of easements; the areas of utility easements;
- (c) Areas and designations of enduring units in the case of joint facilities;
- (d) Areas of public road rights;
- (e) Plans; precinct division and precinct names; and
- (f) County, municipal and parish of the Swedish Church boundaries.

The Cadastral Index Map is a part of the Real Property Register and gives the geographical representation of the properties.

7.4.4 Computerisation

In **Malaysia**, to realise the computerisation of the overall management and administration of land in the country, the Ministry of Natural Resources and Environment (NRE) has planned to create an integrated computerised system, known as the *Sistem Permodenan Pejabat Tanah* (SPPT) project or Electronic Land Administration System (e-Land). E-Land is designed to improve the delivery of land administration and management services in Peninsular Malaysia using an integrated ICT infrastructure. Currently, the Ministry of National Resources and Environment has implemented two systems for the administration of land information, namely *Sistem Pungutan Hasil Tanah* (SPHT) and *Sistem Pendaftaran Tanah Berkomputer* (SPTB). Both systems are already being used in all State Lands and Mines Offices and District Land offices in Peninsular Malaysia.

Since 1995, DSMM has embarked on a modernisation program that saw the computerisation of both its office and field processes of its cadastral survey division. The Digital Cadastral Database was created by capturing the surveyed accurate information of all land parcels. Under the e-Cadastre project, a comprehensive nationwide readjustment of the meshwork of parcels will be carried out based on a new geocentric datum concept. The Real Time Kinematic Global Positioning System (RTKGPS) has seen the setting up of permanent stations established to provide precise geocentric positioning to assist the Coordinated Cadastral System implementation. This network is to be implemented to support the e-Cadastre project. The objective of e-Cadastre is to expedite the delivery system for land title surveys. This entails the creation of a survey accurate database at the national level suitable for Geographical Information System (GIS) users. Various issues related to the generation of a survey accurate database need to be addressed.

In **Sweden**, the cadastral index map has traditionally played an important role in cadastral documentation. It has evolved from an old type of cartographic map to a map based on more modern techniques and now it has become completely digitised. The computerisation of cadastral maps developed in two directions. In the first direction, the cadastral parcels were derived from an existing economic map that had been fully digitalised and renamed as the real property map. The second direction saw the cadastral map digitised and connected with the land information system forming more accurate cadastral databases.

7.4.5 Boundary

For the demarcation for 3D property in **Malaysia**, the boundaries must be shown in the Certified Strata Plan and Document of Title. The Certified Strata Plan shows the land and parcels in only two-dimensions. Three-dimensional displays offer better visualisation and three-dimensional coordinates shown only in the stratum or underground land can be defined by coordinates (x, y, z) for each point in the volume parcel. On the other hand, the two-dimensional plan does not show the whole boundary in coordinates. To determine the limit of the boundary strata title, the common boundary of a parcel with another parcel or with the common property is taken to be the centre of the floor, wall, ceiling unless specified otherwise in the relevant storey plans. The law does not prevent any strata developer from delineating boundary lines that do not coincide with the centre of the floor, wall or ceiling.

In **Sweden**, for the demarcation for 3D property, the property boundaries must also be described in the cadastral map and legal descriptions in the land registry. If the marking cannot be set out and marked in any suitable way, which is often the case for a 3D property, the boundaries should be described with sufficient accuracy in the cadastral documents. In the case of a 3D property below or above the ground surface, it may be marked at the ground level if the marking cannot be marked on the 3D spaces surface. Three-dimensional coordinates for 3D property can be defined by coordinates (x, y, z) for the various break points in the property's boundaries. To determine the limit of boundary strata title, a 3D property consists of an enclosed volume which is delimited both horizontally and vertically, i.e. the border can often be sketched and identified as in traditional real property. A

property's boundaries must therefore be specified or described adequately. It is a standard procedure for the 3D boundaries of a building to consist of the middle of the walls and floors.

7.5 Summary

From the comparative study on Malaysia and Sweden, there are many similarities in terms of categories of tenure, types of registration and demarcation. Both countries use land laws to regulate land tenure and provide three-dimensional ownership (dimension on surface and dimension above surface) as well as management corporations to manage the strata title properties. Both countries issue the Document of Title to the owner and also carry out a cadastral survey to determine the location and area of the property.

However, there are also a few categories of tenure, types of registration and demarcation that are different between Malaysia and Sweden. Although both countries give provisional strata titles to a multi-storey building before its completion, Sweden does not fix the period of the delivery of possession, unlike in Malaysia. There is also no Alternative Dispute Resolution to settle the disputes in the strata scheme in Sweden; neither is there any specific legislation regarding threedimensional ownership below the ground surface, unlike in Malaysia. Another difference is that Malaysia has no complete interoperability of land administration system where a lot of tenure, taxation, land use and cadastral information are decentralised. In addition, Malaysia also lacks vertical third dimension information in a coordinate system and boundary point information.