Integrated Electronic Land Administration System
(e-Tanah) in Malaysia

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Abstract—This article discusses two main issues on integrated electronic land administrative system (e-Tanah) in Malaysia. As an integrated electronic processing of applications on land matters, registration of titles, documents required to be prepared thereby and any documents of titles through the use of a computer which includes both manual and computerised procedures, e-Tanah must be supported by legal provision and administrative mechanism. First, from the legal point of view, e-Tanah is clearly endorsed by the main statute on land matters, i.e. the National Land Code 1965. Second, administratively, e-Tanah is also properly managed.

Index Terms—Land administration, e-tanah, public delivery system.

I. INTRODUCTION

Malaysia is currently implementing e-Tanah (Electronic Land Administration System), a comprehensive administrative system of its land office. The system uses an integrated information and communication technology (ICT) which accelerates data processing, services delivery and land dealings. E-Tanah is supported by statutory legal provisions, i.e. the National Land Code 1965 (NLC 1965). Does e-tanah protects the transparency, integrity, interoperability and reliability in the administration and management of land in Malaysia?

Indeed, government delivery system in relation to land management is not altogether new in Malaysia. Initially under the flagship of Multimedia Super Corridor (MSC) in 1996, the e-government projects have adopted various technologies to improve the dissemination of information and services. Between 2001-2005 (Eight Malaysian Plan), various technological programmes has been introduced, such as a new land administration strategy to improve existing work system and services that includes the activity of registration, dealings, disposal, development and acquisition of land. The same review applies to the process for surveying, preparation and issuing of the land title to reduce grievances and improve the effective land management.

Existing literatures have focussed on (a) discussing the land administrative issues on improving land delivery system (b) designing the integrating process of computerisation system, its application and interoperability and (c) reviewing the National Land Code 1965 (NLC 1965) for purposes of providing an enabling legal environment as a foundation to regulate the system. Isahak [1] identifies three key challenges for the success of e-government on land administration, first, the system, i.e. the land office must identify an efficient and user friendly electronic tax payment method which is able to generate and develop a comprehensive land information and data centre. Second, lays on its technology savvy, i.e. land administrators must be ICT literate and are able to use electronic hardware to perform their daily work. This is particularly important at the service counter to ensure smooth running of the whole process. Third, the physical factor involving the structure, office design and layout, which that reflects the image and credibility of the land office.

The computerisation of land title and the construction of land data banks must have several characteristics. Lang [2] identified three:
1) The system has the ability to perform certain simple requests at extremely high speeds.
2) The system can automatically retrieve its data storages and modules in simple operation.
3) The system is able to store vast qualities of information and interoperable with other independent system.

This paper discusses the implementation of integrated electronic land administrative system (e-Tanah) in Malaysia in terms of legal support and administrative mechanism.

II. LAND INFORMATION SYSTEM

According to Williamson [3], land administration is a ‘processes of recording and disseminating information about the tenure, value and use of the land when implementing land management policies. It is considered to include land registration, cadastral surveying and mapping, fiscal, legal and multi-purpose cadastrs and land information systems’. In this process, there are three important issues, i.e. land ownership, land value (taxation) and use of land.

First, the determination of the ownership rights and its details are described in a computerised way to establish a user friendly but systematic land management. Land management...
in Malaysia is a complex matter as the administrative powers is bestowed on various governmental departments and state offices. For example, District Land Offices and State Director of Land and Mines Offices manage the administration of land registry and titles, Department of Survey and Mapping is in charge of the cadastral mapping systems, and the Federal land management is within the control of Federal Land Commissioner under the Department of the Director-General of Land and Mines.

Second, the computerised land revenue collection system (CLRCS) is a system for collecting land revenue. It is interoperable with Computerised Land Registration System (CLRS). Its function is to register dealings and non DEALINGS and e-cadastre for the preparation of certified plans in respect of registration of titles.

Third, land use includes developing of land into agriculture, residential, commercial and industrial. By far, this is a sensitive issue and must be accurately recorded so that its indefeasibly can be guaranteed. Other examples of land use include the process of issuing qualified titles and final titles, automatic renewal of leases, variation of condition and restrictions, sub-division, partition and amalgamation, and alienation, re-alienation and surrender.

III. ADMINISTERING PUBLIC DELIVERY SERVICES ON 
E-TANAH

To ensure the success of public delivery system in land administration, the data and information infrastructure must support the economic development, environmental management and social stability. Land administration policy has shifted from command economies to market economies and rebuilding social and governmental institutions.

The introduction of e-Tanah in Malaysia is a result of legislation rather than technology. NLC 1965 expressly supports e-Tanah. Part 1 (c) section 5D of the NLC 1965 statutorily allows the Minister to modify the NLC 1965 so as to facilitate the implementation of e-Tanah.

When e-Tanah was first introduced, its primary aim was to adopt ICT so that e-governance delivery system could be strengthened. Online land administration (Fourteenth Schedule of NLC 1965) was implemented alongside manual application of land registry. In 2005, e-Land Administration and the future i-Land system (Sixteenth Schedule of NLC 1965) was developed expeditiously.

The current e-Tanah is depicted as an integrated electronic processing of applications on land matters, registration of titles, documents required to be prepared thereby and any documents of titles through the use of a computer which includes both manual and computerised procedures (Table I).

The underlying legal philosophy of e-Tanah, i.e. to protect land ownership and data held electronically is achieved through the rights of access and change the entries. The law must also determine the balance between the rights of the citizens and the responsibilities of the state. For example, the enforcement to forfeit land under Section 100 or Section 129 of the National Land Code is debatable and vague. The decision over the land matters normally being delayed for a longer period of time as against the provisions stated by the Code. The decision making process within land administration is normally fragmented due to different ministries (Ministry of Finance, Agriculture, Environment etc). Foreign ownership of land is more complex involving political agendas and more conflicting interests. With the proper cooperation and upgraded e-Tanah system, intergovernmental coordination is possible. The governmental agencies such as taxation, environment, agriculture, forestry, urban property and housing development can be easily integrated.

<table>
<thead>
<tr>
<th>No</th>
<th>First and Tenth Schedule</th>
<th>Fourteenth Schedule</th>
<th>Sixteenth Schedule</th>
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<tbody>
<tr>
<td>1</td>
<td>First Schedule – relevant forms (manual)</td>
<td>Computerised Land Registration System</td>
<td>Electronic Land Administration System</td>
</tr>
<tr>
<td>2</td>
<td>Forms means a form specified relating to dealing</td>
<td>Procedures for registration where the documents required to be printed and prepared by the Registrar and any entry in any document of title through the use of a computer – manual and computerised procedures.</td>
<td>All land related information recorded into land database by electronic technology that generates, stores, preserves and processes data in terms of a computer file and computerised formats.</td>
</tr>
<tr>
<td>3</td>
<td>Forms shall be copy or printed on plain white paper.</td>
<td>The computer printed forms</td>
<td>No printed forms but online application</td>
</tr>
<tr>
<td>4</td>
<td>A signature shall be in manuscript</td>
<td>The Registrar shall verify the contents and authenticate the document under his hand and seal</td>
<td>The Registrar shall maintain records called ‘Presentation Record’ and ‘Correction Note-Book’ to register, endorse or enter or reject or withdraw the application</td>
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<tr>
<td>5</td>
<td>When completed, the Registrar shall transmit a copy and shall retain one copy for record.</td>
<td>Every computer printed document shall be kept in loose leaf.</td>
<td>Every computer document shall be stored in the land database.</td>
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Administrative mechanism of e-Tanah requires its system to consist of internal and external features. The internal feature consists of ten modules that is connected to a central
point and displayed on the official desktop for District land Office (PTD) and State Land Office (PTG). The Single Point of Contact (SPOC) is the first entry where all applications by the end-users will be checked and initially a reference number, date and time stamp is recorded. At this juncture, name, address and data on end-users will be captured and issued. This information is transparently accessed by the officers and staff of PTD and PTG. For security purposes, the officers must log on before performing their official tasks.

There are five dealings modules in which applications are available online. The first module is on registration, which is designed to cater for registration process of title, dealings and non-dealings on proprietor’s land. Obviously this process includes the transferring of application by the end-users to transfer land or share. The process is simple, just by clicking the ‘enter’ button, the transferring process is legally done, thus is susceptible to misappropriation and fraud. Irresponsible staff may simply register, reject or suspend the presented transfer instrument provided consent is verified through Letter of Consent module. Registrar who aware the tasks will register the application. Upon registration, new version of the title, letter or other notifications will be generated by the system to be kept in the Document Management System (DMS) and printed. E-consent in e-Tanah is designed to produce the Letter of Consent for verifying transfer, charge and transfer and charge. With e-consent, the information of the title can be retrieved faster from portal and Title Registration module.

The second module is Land Disposal module where application for state land through alienation and other than alienation is designed. For land disposal, the approval of Majlis Mesyuarat Kerajaan Negeri (MMKN) is required before the service of notification letter to applicant and payment of deposit. The third module applies the same procedure as in Land Development module. The preparation of meeting paper by MMKN for land development that concerns partition, subdivision and conversion of land requires the approval of authority. Both modules are subject to authentication by digital signature.

Fourth is Land Acquisition module. The State or Federal government initiate the acquisition of particular land for public purposes or Federal use. Although the system is able to retrieve and obtain title information, ownership and correspondence address of the owner, the transparency of the process is the matter of law. The intention of land administrator is not sufficient by serving Form E by way of notifying the owner or any other interested parties of his intention to conduct hearings and enquires online.

The last module is dedicated for strata titles where e-Tanah designs online application in respect of building or buildings having two or more storey on alienated land. The process of subdivision into parcels or subdivision of land into land parcels needs the coordination of various units in the land office and relevant technical departments. It is submitted that although the issuance of new strata titles as provided by Title Registration module as a complete process as successful, it is difficult to identify that there is no any contrary directive by the state authority after being approved by the PTG.

External features use computerised land revenue system (CLRCS) for collecting land revenue. The computerised spatial data system also was established (e-catastre) as an integral tool to facilitate the registration of ownership, valuation and taxation, management and planning as well as statistical data capture, environmental risk assessment and business planning. E-catastre integrates with e-Tanah application. The combination of these two systems envisages a highly integrated and interoperable technology.

The integration of e-Tanah and other external systems is made possible with the availability of e-Cadastre and one stop payment agencies. The integration of e-Tanah and e-catastre enable the transmission of electronic Requisition for Survey (RS) and Requisition for Extract of Plan (RE). Pos Malaysia, Kedai Telekom and Banks (CIMB clicks and Maybank2u) are example of agencies which need to be discussed in comprehensive manner for their exact database and effective integration. The e-Tanah system is able to work and operate in conjunction with other system through the on-going process of interoperability, a process that effectively links several systems or institutions.

Interoperability standard in e-Tanah is also depending on open technologies, thus neither government nor industry control the entirety of the system. The relationship between the land administration system and other entities is illustrated in the Fig. 1.

![Fig. 1. The Concept of Interoperability within e-Tanah](image)

The interoperability concept applied in e-Tanah is justified as its complexity is to perform effective services to customers and businesses. The main objective is to co-ordinate and align the dealing process that span customers, private partnership and public sector together. Needless to say, the administrative mechanism of e-Tanah is very important; it supports good land administration and management. Not only it involves the implementation of land policy but routine operational decisions are equally important.

**IV. CONCLUSION**

The integrated e-Tanah system is equivalent to a one-stop-shop. The NLC 1965 clearly supports its implementation. Proper administrative mechanism is also in place. Perhaps, it is good for future study to investigate the social and economic impacts of e-Tanah. For example, changes in leadership may cause the non-continuity of the system. The selection of organization’ executive levels or
intervention of political ideology may also lead to the 
abeyance and cessation of the system. Malaysia is also a 
plural society with multi races and ethnics.

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