

# MEMORANDUM ON THE URGENT NEED FOR A NATIONAL ADDRESS REGISTRY WITH UNIQUE IDENTIFIER





# INTRODUCTION

*On 25-26 November 2019, a workshop entitled “Establishing Unique Address Registration System in Malaysia: Towards a Modernised Address Registration System and Management” was successfully held at Novotel Kuala Lumpur.*

The one-and-a-half day workshop was co-organised by the Electoral Reform Committee (ERC), the Ministry of Housing and Local Government (KPKT) and the Coalition for Clean and Fair Elections (BERSIH 2.0) with financial support from the Federal Foreign Ministry of Germany.

The workshop brought together about 70 participants, including experts from

the United Kingdom, Australia, Malaysia and users of address-based data from the public and private sectors as well as civil society actors and academic institutions and think tanks to discuss the current status, the need for and the way forward to establish a national address registry with a unique identifier for each property in Malaysia. The participants comprised four main categories. The first category is government agencies dealing with address registration such as the ERC, the Election Commission (EC), KPKT, National Registration Department (NRD), Department of Statistics (DOSM), Ministry of Communication and Multimedia, Malaysian Communications and Multimedia Commission (MCMC), MaCGDI and Immigration Department, local councils such as Putatan Municipal Council and Kota Kinabalu City Council.

The second category is stakeholders from the private sector, such as Pos Malaysia, Telekom Malaysia, geo-tech companies such as Tuxuri Sdn Bhd, HERE Tech, World Express Mapping, EPIC, etc. The third category is civil society organisations campaigning for free and fair elections, such as Tindak Malaysia, ENGAGE, Malaysia Corruption Watch, etc. The fourth category is academic institutions and think tanks such as University of Malaya, Sunway University, Merdeka Center, Institute of Strategic Analysis and Policy Research (INSAP), Institut Kajian Politik untuk Perubahan (KPRU), etc.

It was agreed that currently the address format in Malaysia is non-standardised and there is no means to verify the accuracy or the existence of addresses as there is no centralised and definitive address registry that is accessible by the public and private sector service providers. This has led to widespread data errors, abuses and frauds in the electoral roll, national citizenship registry, billing systems, delivery systems and other administrative issues.



Group photo of workshop participants.

# CHALLENGES WITH THE CURRENT ADDRESS SYSTEM

Currently, all addresses in the country are created by local authorities nationwide, but there is no national registry for these addresses. Under Section 4(1)(g) and 57 of the Postal Services Act 2012, the Malaysian Communications and Multimedia Commission (MCMC) is mandated "to develop, control, implement, maintain and manage the postcode and addressing system in Malaysia" and may delegate this function to the "Designated Postal Operator or any person", and in our case, Pos Malaysia is the institution tasked with managing our addresses.

The challenge for Pos Malaysia is that they are not responsible for the creation of addresses nor would they be aware of what happened to a property, whether they have been rebuilt into multiple occupancy property or demolished altogether. The power to give birth to addresses and follow through the whole life-cycle of a property is in the hand of the local governments or authorities in this country. Thus, there is a need for close coordination between local authorities and Pos Malaysia if we want to have up to date status on an address or property.



**The problem is made complicated further when they have a different address for their identity card (IC), driving license and live under a different address from the address in their IC and driving license. The format of address numbering is also not standard, making identification of property even harder**

**Mr. Mohammad Ridzwan Abidin,  
Deputy Director General of KPKT  
(Operations and Development)**





**Common cases of incomplete addresses include missing house number or lack of specific details or the postcode does not match the town or district therefore making the addresses very general and hard to identify the specific property. Spelling mistakes is also one of the common problem faced by the department when dealing with addresses.**

**Mr. Jasri Kasim, Deputy Director of NRD (Operations)**

However, the problem with the way we assign addresses to our properties in Malaysia is the lack of standardisation in how we order the number, place names, roads, estate, city and even how we spell words. Despite the existence of a Malaysian Standard for Addresses (MS2039:2006), we are still a long way from achieving an acceptable level of standardisation.

The consequences of this problem are far-reaching and go beyond difficulties encountered by the postal or delivery service providers. It affects the efficiency of public and private sector administration and effectiveness of data analyses. The address is the most common data required by almost all manner of service providers, from registration as a voter, medical record,

insurance, banking, mobile phone subscription, library membership, local council services, etc.

As an example, BERSIH 2.0 and other electoral watchdogs have uncovered substantial data errors and frauds in the electoral roll maintained by the Election Commission of Malaysia (EC). Much of the issues originated from how addresses are collected and entered by the EC of eligible voters. The EC relies on the National Registration Department (NRD) who issues the MyKad (identity card) to citizens. The NRD relies on people to furnish the correct address and until 1st May 2019, without any documentary proof of residency, correctness or even existence of such addresses. But since then, the NRD

has made it a requirement for registrants to provide proof of domicile like utility bills, tax bills, rental agreements and so on. The result of not having control over the address data meant that one of the most important identification of a citizen is open to abuses by unscrupulous individuals and syndicates.

Due to ambiguities in many addresses, the manual assignment of localities (the smallest unit of electoral boundaries) to voters by EC staff has led to entry errors that resulted in strange assignments. As an example, husband and wife living in the same house and bed, but assigned to different constituencies to vote. Some addresses are large plot numbers, some just road names, some are just names of villages and even just electrical pole numbers.

What is also of great concern is the inability to verify the genuineness of addresses, whether such property even exists or are the correct category for the purpose of the application, for example, that the property has been demolished or never built. Fraudulent

registration of voters in non-existent addresses and packing of a large number of voters into a single address are prevalent and unless audits of the electoral roll are carried out, such abuses would go undetected. The absence of a unique identifier for addresses undermines the integrity of data where the correct location of the person is critical for determination of their eligibility and for delivery of services to them.

The Ministry of Housing and Local Government (KPKT) does not maintain a registry of all the properties in the country as these are kept by the 154 local authorities. The Ministry also does not have direct jurisdiction over local authorities as they are under the State list. KPKT is responsible for formulating, executing and monitoring all laws pertaining to local government, but they do not oversee District Councils as they are under the supervision of the Ministry for Rural Development. It is clear that there are Federal-State relationship and laws that need to be considered in order to bring together all the registries maintained by all the local authorities.

# THE UNITED KINGDOM MODEL: THE UNIQUE PROPERTY REFERENCE NUMBER SYSTEM

In the United Kingdom, a national address registry is established and managed by Geoplace LLP, which is a joint public limited liability partnership of the UK's Local Government Association (LGA) and Ordnance Survey (OS). Geoplace is based in London, employs 65 staff, with a turnover of approximately £16million, has running cost of approximately £8 million and a return of approximately £8 million to the public purse.

It was formed in 2011 to meet public and private sector users requirement for a single national address infrastructure. It provides a vehicle for improvement, transformation and efficiency across Government in the use of location data. Their data is used in the public sector for the transformation of services, efficiencies, policy development and monitoring, intelligent procurement and data sharing with delivery partners. In the private sector, the data deliver better services and economic growth. Ultimately their work saves the public sector money and improves people's lives.

*A unique identifier for each property is important because there are numerous ways to identify a property and it is not possible to link various address data without a common agreed framework.*

In order to create and maintain a national address infrastructure, address and street data managed are sourced directly from responsible and statutory authorities in the UPRN. All data must be captured and verified to the same standard and a unique identifier (UPRN) allocated to all addresses (not just postal) at the start of the property lifecycle. Close working relationship to all local authority and other data custodians with dynamic feedback mechanisms between data creators and users is critical to the success of the UPRN.

**For more information on the UPRN, please refer**

<https://www.geoplace.co.uk/>



# EXPECTATION OF STAKEHOLDERS

In the workshop, Dr. Azmi Sharom, Deputy Chairman of Election Commission (EC), shared about the challenges faced by the EC when they rely on the address data submitted by those who applied to be new voters. Incomplete or fraudulent addresses would lead to difficulties in determining the locality to place such voters.



**The country deserves a better and accurate address system. For EC, the address list is very important primarily because of the electoral roll that has become the backbone of democracy in our country, and they need to determine the constituency and locality correctly in order to carry out monitoring work well.**

**Dr. Azmi Sharom,  
Deputy Chairman of EC**

Mr. Thaib Mustafa, General Manager, Telekom Applied Business (TM), revealed why address data is critical to TM's operation. Accurate addresses are required during customer registration and onboarding, billing address for payment and collection, installation and repair, maintenance services, performance and security controls/measures, contract and agreement and legal compliance.

Mr. Danesh Prakash Chacko of Tindak Malaysia spoke about how Tindak Malaysia uses limited address data to detect presence of suspicious voters and unravel limitations of current electoral rules.



**It is high time for Malaysia to have a trusted and highly secured aggregator to manage addresses digitally. For this, the country needs to have an aggregator to become the source of authority of addresses to decide which address is definitive to be employed by using an online digital interface. This is really critical for business and product installation in the case of Telekom.**

**Mr. Thaib Mustafa, General Manager,  
Telekom Applied Business**



To curb abuses and to improve efficiency of service delivery and data analyses for public and private sector, it was a consensus of the workshop participants that:

- ✓ A national registry of addresses that is accessible to the public is necessary.
- ✓ This registry should be dynamically updated from the source.
- ✓ The addresses should adhere to the Malaysian Standard as found in MS2039:2006.
- ✓ The addresses should have a unique identifier code with link to geocoded location information.
- ✓ The address should have geocoded location information.
- ✓ On concerns about security, address data on its own poses no security concerns but only if other data like individual information like name, ID, phones, blood groups, etc., are added to the address. The responsibility to secure such data would rest with users of the address data.



# RECOMMENDATIONS FOR MALAYSIA: MODERNISING THE ADMINISTRATION AND MANAGEMENT OF ADDRESS REGISTRATION

It is recognised in the workshop that all the necessary data and framework are available to make national address registry a reality. Pos Malaysia has a database of over 9 million addresses, each with a unique identifier while the Department of Statistics of Malaysia has also built a database of over 9 million households/addresses that they use to conduct surveys and do the 10-yearly census.

However, the challenge is how to bring together the key implementing institutions together, including the thirteen federated States that have sole responsibility over their local governments, to agree and to coordinate their operations to create such a national registry.

The importance of the establishment of a national address registry with unique address identifier and geo-coded link for national development is well established. It will not only enhance the efficiency and productivity of public administration, but also support greatly the private sectors in their business operations with increasingly administrative matters and business transactions being conducted in digital manner in the future with 5G technology, Industrial Revolution 4.0 and artificial intelligence.

Based on the deliberation of the workshop, BERSIH 2.0 makes the following recommendations:

- 01** The ERC must impress upon the Prime Minister and the Cabinet of the importance of establishing a national registry for all addresses in this country that has a unique identifier code so that delivery of services by the public and private sector can be more efficient and data analyses can be more effective.
- 02** An inter-ministry task force with representation from the private sector and civil society should be formed to study into the feasibility, technicality and cost-benefit of establishing such a national registry. The key institutions identified includes KPKT, JUPEM, Mampu, Pos Malaysia and National Council for Local Government (NCLG).
- 03** The task force should consult with countries like the UK or Netherlands that already have such an address registry.
- 04** There should be extensive consultation with all stakeholders from the public sectors and private sectors to ensure that the solution afforded by the national registry would adequately meet their expectations and their needs.
- 05** The establishment of the national registry should go hand-in-hand with the push for a standardised addressing format that is in compliance with the Malaysian Standard as listed in MS2039:2006.
- 06** The Unique Property Reference Number (UPRN) code should be random so as not to expose details of the property the way our identity number reveals our birth date, state of birth and gender.

**07** For authorized users, they should have access to geocoded location information and other address forms through the UPRN. With geocoded location data linked to the UPRN, it would be possible for the EC to place addresses to the matching electoral localities and polling districts.

**08** For the national registry to be constantly updated and definitive, it must be updated by all 154 local authorities in the country as these are the source of all addresses and approving authorities for any changes to the property.

**09** The UK model of setting up a partnership between either the NCLG or KPKT and JUPEM, to own and maintain such a registry should be considered. In Malaysia's context, the Malaysian Communications and Multimedia Commission (MCMC) should also be considered as under the Postal Services Act 2012, they are mandated "to develop, control, implement, maintain and manage the postcode and addressing system in Malaysia.