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Tenth United Nations Conference on the Standardization of Geographical Names

New York, 31 July – 9 August 2012 Item 11(c) of the provisional agenda* **Toponymic Data Files and Gazetteers: Data maintenance**

The Development of Malaysian Geographical Names Database

Submitted by Malaysia**

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1. INTRODUCTION

This paper will explain on the progress of the development of Malaysian Geographical Names Database and the production of the web gazetteer, known as MyGeonames. The issues and the future planning for further development of the database and the process of developing, maintaining and updating the database is also highlighted in this paper.

2. BACKGROUND

Malaysia requires a comprehensive database of geographical names which are consistent and authoritative. As such, the information can be retrieved quickly for the usage by the stakeholders. The developed database consists of amongst others; local names, location, historical background and gazette notification that have authoritative records available for government and public use.

Chaired by the Malaysian Centre for Geospatial Data Infrastructure (MaCGDI), The Working Group on Geographical Names Database and Gazetteer, was given the responsibility to develop the Malaysian Geographical Names Database and Web Gazetteer. Currently, the database is being developed using a map scale of 1:25,000 which involves updating of geographical names and inclusive of the development of new modules such as audio, video and Arabic character in the database.

3. GEOGRAPHICAL NAMES DATABASE AND PRODUCTION OF WEB GAZETTEER

The development of the database and the web gazetteer took place in year 2004 and expected to be completed by end of 2012. The future development of the database will be on map scale of 1:10,000 and it is expected to be rolled in year 2013. The detail development progresses are listed as **Table 1**.

Table 1: Project Development Progress

YEAR	ACTIVITIES
2004	Development of Geographical Names Database
	Peninsular map scale of 1:100,000
2007	Development of Geographical Names Database
	Sabah & Sarawak map scale of 1:50,000
2008	Development of Geographical Names Database
	Peninsular map scale of 1:25,000
2009	Development of Geographical Names Database
	Sabah & Sarawak map scale of 1:25,000
	Development of database for islands and offshore entities
	Development of Offline Module
2011	Development of Arabic Character Module
	Development of Audio Module for Malay Language and related
	dialect.
2012	Production of State Gazetteer
2013	Development of Geographical Names Database
	Town map scale of 1:10,000

3.1 Data Maintenance and Updating

The processes involved in developing, maintaining and updating the geographical names are explained below:

3.1.1 Data Collection

Data collection for the development of geographical names database uses Topographic Map with scale 1:25,000 for Peninsular Malaysia, and with scale 1:25,000 and 1:50,000 for Sabah and Sarawak. Data of Island and offshore entities were obtained from National Hydrographic Centre. The name should be in accordance to the guidelines given by the National Authority for Linguistics. Similarly, the same data assessment process is being followed for information on the island and the offshore entities.

3.1.2 Data Verification

In performing the data verification process, briefings and workshops were held in every state in Malaysia. Verification Module for updating the geographical names was introduced to expedite the verification process.

3.1.3 Data Updating

The data updating will be performed only after the verification processes are completed by State Technical Committee on Geographic Names (STCGN). The updating activity includes adding new gazette name and updating existing data. Updating will be done online, using data updating module in MyGeoName application. The updated information will be automatically updated to the database (MySQL) and spatial map (.shp file).

3.2 Web Gazetteer - MyGeoName Application

This web application is developed to provide authoritative information relating to the location and spelling of geographical names which are gazette in a consistent format for the official use of government, industry and the public. The detail figure of MyGeoName Application and Interface, are as **Figure 1** and **Figure 2**.

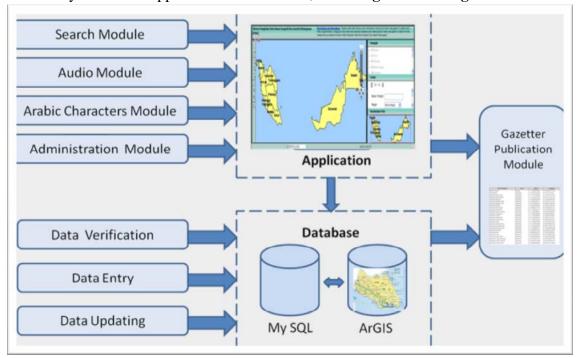


Figure 1: MyGeoName Application

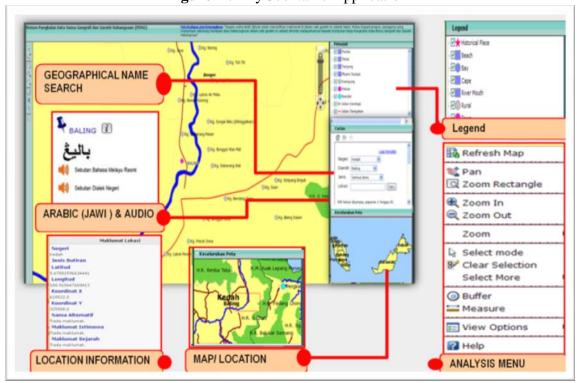


Figure 2: MyGeoName Interface

3.2.1 MyGeoName Modules

The modules developed in this web application are as follows:

i. Search Module

This module was developed to enable stakeholders performing important search on the database. The search can be based on geographical names, locations, districts and states.

ii. Audio Module

Audio module has two (2) pronunciations for each of the geographical name; in standard Malay language and local dialect of that particular state. The accuracy of the audio module was verified by the representative of National Technical Committee on Geographical Names (NTCGN) and secretariat of National Committee on Geographical Names (NCGN).

iii. Arabic Characters Module

Arabic Characters module is a module developed within the geographical names database. All Arabic characters for 64,554 geographical names throughout Malaysia including 3,974 foreign names has been submitted to DBP for verification.

iv. Administration Module

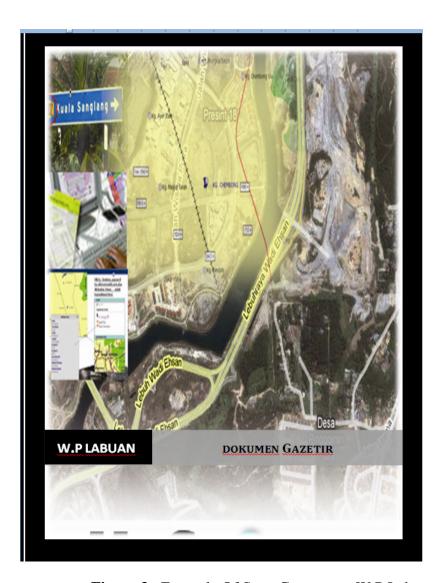
Administration module consists of data entry, data updating of geographical names and coordinates of the location. It also includes the verification of the spelling of geographical names.

v. Gazetteer Publication Module

This module is to publish and generate an authoritative national and state gazetteer of geographical names which had been verified by the STCGN. **Table 2** shown Example Of State Gazetteer while **Figure 3** shown Example Of State Gazetteer – W.P Labuan.

 Table 2 : Example Of State Gazetteer

Nama Geografi	Jenis Bandar	Latitud 115.169565676804	Longtitud 5.27504445141359
3andar Labuan			
3atu Belukut	Kampung	114.907923232088	5.1481417831801
Kampung Batu Arang	Kampung	115.176755846683	5.31494196414297
Kampung Batu Manikar	Kampung	115.157750037784	5.51471411627764
Kampung Bebuloh	Kampung	115.046925465999	5.27818056624379
Kampung Bebuloh Darat	Kampung	115.036804804711	5.26610441737722
Kampung Bebuloh Laut	Kampung	115.057959655729	5.26802422992056
Kampung Belukut	Kampung	115.038554540557	5.25476273822199
Kampung Bukit Kalam	Kampung	115.096902127754	5.3837097832232
Sampung Bukit Kuda	Kampung	115.119339991101	5.41394709421062
Kampung Durian Tunjong	Kampung	115.13987548054	5.39158236383871



 $\textbf{Figure 3}: Example\ Of\ State\ Gazetteer-W.P\ Labuan$

vi. Publishing Of Names Of Islands And Offshore Geographical Entities

Names of Island and Offshore Geographical Entities documents were published in Volumes by National Hydrographic Centre (NHC) as follows:

- (a) Volume 1 Kedah, Johor, Kelantan, Pahang, Terengganu, F.T. Labuan and Pulau Pinang has being published in 2009 (**Figure 4**)
- (b) Volume 2 Selangor, Perak, Melaka, Perlis and Negeri Sembilan has being published in 2010
- (c) Volume 3 Sabah has being published in 2011.



Figure 4: Front page document of Names of Island and Geographical Entities Volume 1

Offshore

4. IMPLEMENTATION ISSUES AND SOLUTIONS

In developing and implementing the Malaysian Geographical Names Database and Web Gazetteer, there were some issues encountered by Malaysian National Committee on Geographical Names (MNCGN), amongst which are;

- i. No proper documentation particularly with regards to the updated or new gazette name,
- ii. No proper documented procedure to verify geographical names,
- iii. Lack of commitment especially in updating the changes in gazette name,

- iv. Delayed in verification process,
- v. Lack of awareness on the importance of the standardized usage of geographical names throughout the country; and
- vi. Pronunciation for geographical names

The cause of all those issues is identified as due to a few internal factors in SCGN. Some State Liaison Officers appointed to the SCGN were frequently transferred to other agencies or changing positions or reshuffling responsibility and these affected the needed continuity on updating and verification process. Adding to the cause, issue on no proper documented procedures to verify geographical names, heading new officers to face difficulties in carrying out their tasks. While for pronunciation issue, some communities in the states have their own dialects thus, pronunciation of geographic names can be different and sometimes cannot be determined correctly.

In addressing this situation, MaCGDI has intensively giving out technical discussion and training specifically on data updating and standardization to ensure all State Liaison Officer has proper knowledge and awareness in order to fulfill the tasks. Beside, MaCGDI with the helps from State Liaison Officer has formed a working group to ease the problem of 'knowledge drain' due to the transferring issue. This working group is responsible to solve any encountered problem and documenting all collectively and completed work as a future guidance to the tasks and to ensure proper documentation is took place throughout the implementation works.

However specifically on pronunciation matter, MNCGN had decided that "Audio File" be developed for all names that appear in the Web Gazetteer and this would in certain ways be able to address this matter and would lead to pronunciation of geographical names being made in a standardized manner. Two (2) versions of "Audio File" have to be developed to represent its different way of pronunciations. In this regard, first version represents pronunciation using standard language whilst the second version represents dialect pronunciation of each state of the country.

5. CONCLUSION

The development of geographical names database in Malaysia needs support, cooperation and commitment from all the related agencies, particularly at state level. Compliance with policies and guidelines for the determination of Geographical Names is important so that the geographical names given are consistent and authoritative. An effective database of geographical names will be a reference to all parties, which is significant in the aspect of nation building.