GIS History : MALAYSIA

The move to create a Digital Cadastral Database (DCDB) and the National Topographic Database by the Department of Survey and Mapping in the mid-1980s put into place the foundation for the development of GIS in the country. Various national and state initiatives were undertaken in a concerted effort to harness the power of GIS for the better management of the environment, natural resources and for marco-economic planning.

Among the initiatives are the Penang GIS in 1992. This is the first across-the-board statewide GIS project in Malaysia. The implementation is known as PEGIS (Penang Geographic Information System). After two years of painstaking implementation and evaluation, PEGIS saw its final acceptance in August 1994 after successfully meeting the objectives of the Pilot Project. PEGIS was also formally handed over to the Penang State Government, which has now turned it into a corporate body under the control of the Penang Development Corporation.

Another early initiative is the Computerized Planning Information System by Melaka City Council in 1994 and upgraded in 1996. This system is being maintained by the Town Planning Department with the assistance of the IT Management Division of Melaka City Council. The objective of this system is to convert all land-related information within the Council Administrative area, into a more efficient and integrated digital format, in line with the national objective of realizing an 'electronic government'.

Selangor joined into the state GIS bandwagon with the implementation of Darul Ehsan GIS (DEGIS). It has been given the role of integrating the diverse datasets through the Internet to create an effective, consistent and inexpensive GIS infrastructure. To promote the sharing of data among the various state agencies and the public, DEGIS has also been tasked with the creation of metadata for Selangor.

In Malaysia, efforts have been made since 1992 to establish a national infrastructure for a land information system. A feasibility study to determine the efficacy of such a system - carried out by the Ministry of Land and Cooperative Development - was recently completed. On 2 January 1997, the Chief Secretary to the Government issued a circular that offered guidelines on the establishment of the National Infrastructure for Land Information System (NaLIS). NaLIS would provide the technology, policies and standards necessary to acquire, distribute and improve the utilization of land information. The main objective of NaLIS is to provide timely access to land information, eliminate/reduce duplication of data capture and promote effective data sharing among related agencies.

With the establishment of a NaLIS Clearinghouse, land data users would be able to browse through the data directory and dictionary, which provides - in the form of metadata - a description of available land data.

Among the early users of GIS other than Department of Survey and Mapping (JUPEM) and Malaysia Centre for Remote Sensing (MACRES) are the Department of Agriculture, the Forestry Department, Geological Survey Department, Valuation and Property Services Department, Public Work Department and Economic Planning Unit.

The Agriculture Department ventured into GIS in 1992 with the replacement of its obsolete mini-computer system by a high-performance 'client-server' system, which maintains a land and land use investigation database. Among its main GIS activities are the creation and maintenance of a spatial and attribute database and the storage, processing and management of this information for the purpose of producing land use maps.

The Sabah Agriculture Department ventured into GIS in late 1993 and is currently in the process of digitizing all its land use distribution maps at a scale of 1:25,000. The PC-base system was upgraded to a workstation-base system in September 1995. In 1995, Bahagian Kemajuan Wilayah Persekutuan dan Perancangan Lembah Klang, Jabatan Perdana Menteri (now Kementerian Wilayah Persekutuan) begin developing GIS application called 'AGISWlk' (stand for Aplikasi GIS Wilayah Lembah Klang).

The Forest Department of Sarawak is in the process of procuring a GIS which was approved by the government in early 1995. The system's overall objective is to establish an efficient and operational Forest Management Information System using GIS as a tool to support and strengthen the department to carry out its mandate as the custodian of the state's forest resources.