

Thesis Title	The Application of Geographic Information System for the Formulation of District Plans in Bangkok : A Case of Bangrak Patumwan Rajdhevi and Phyatai
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Abstract

The formulation of local planning complicated involves a vareity of attribute data from many different sources and needs the complicated analyses. So it is necessary to have good database management system for prompt data adjustment to achieve planning efficiency.

This study has 3 aims as follows

1. to explore existing planning conditions necessary for Geography Information System database.
2. to design the GIS database management systems (DBMS) for local physical planning.
3. to experiment the capacity of Geography Information System (GIS) in the field of local physical planning.

There are three steps for the GIS application in this study. First is the field survey to integrate physical data, and collected data from reports and other map. Secondary is the storage and management of selected data. Lastly is data analysis by using the program SPANS-GIS. Each step has advantages and disadvantages when compared to conventional plan formulation methods.

The collection data is essential for local planning process. It describes the area general particularly the topology. It is found that under the current situation where raw data necessary for physical planning are not available at the responsible agencies, field survey is needed and this is time consuming. Moreover, available data are scattered among different agencies and not well documented. So it is essential to integrate and manage data collected from many sources before putting into GIS.

The importance of GIS database design is the integrate information systems, that is, to link primarily uses physical data but some socio-economic data can be stored in the GIS as well because of they are referred to the same geographic location. In the case of district plan where study area is relatively small, the detailed socio-economic data can not be shown in the GIS due to data unavailability.

The important process and the advantage of GIS analysis is overlaying. It creates new information from existing database. In addition, buffer operation also needs to be applied for local plan formulation.

GIS application eradicates the constrain from manual approach. It also reduces the operation time, and reduces cost in the long run. But at this moment, GIS application encounters with the lack and imperfection which hinder the real GIS capacity. It is recommended that there should be agency at national level to look after the whole management of data for GIS not only for local physical planning but also all relevant fields in order to share update and create base data to reduce overlapping operation costs among different agencies and to achieve planning effectiveness and efficiency.