

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

**Department of City & Regional Planning
CRP514**

**GIS IN URBAN PLANNING AND MANAGMENT: MALAYSIA
EXPERIENCE**


By

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For

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OUTLINE

- Introduction
 - Planning Process in Malaysia
 - Urban Planning Application of GIS
 - GIS Application in Development Plans System in Malaysia
 - ✓ National Physical Plan
 - ✓ Regional Plan
 - ✓ State Structure Plan
 - ✓ District Local Plan
 - Conclusion
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INTRODUCTION

- Urbanization process in the developed countries.
- Negative impacts if uncontrolled.
- Physical, socio-economic and environmental aspects in the planning process .



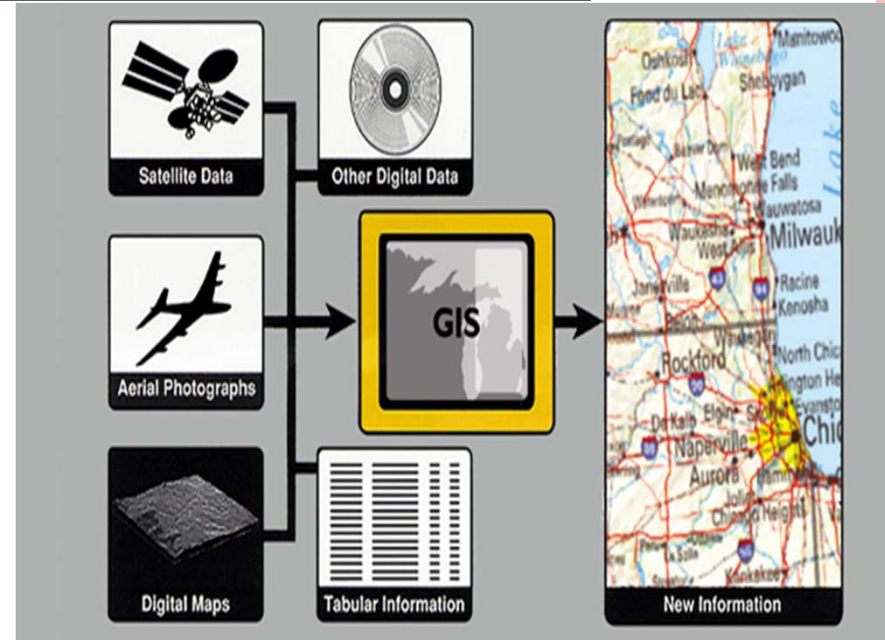
PLANNING PROCESS IN MALAYSIA

- One of the developed countries in Asia region.
- Instantaneous emergence of cities, industrial, and commercial centers.....In addition to fast growth of 4.2 per cent yearly in KL.



URBAN PLANNING APPLICATION OF GIS

- printed maps, field survey, satellite images...etc. for planning analyses
- Wide variety of sources and data formats in GIS.
- Objective: using GIS in the development plans implementation and monitoring urban development based on Malaysian experience.



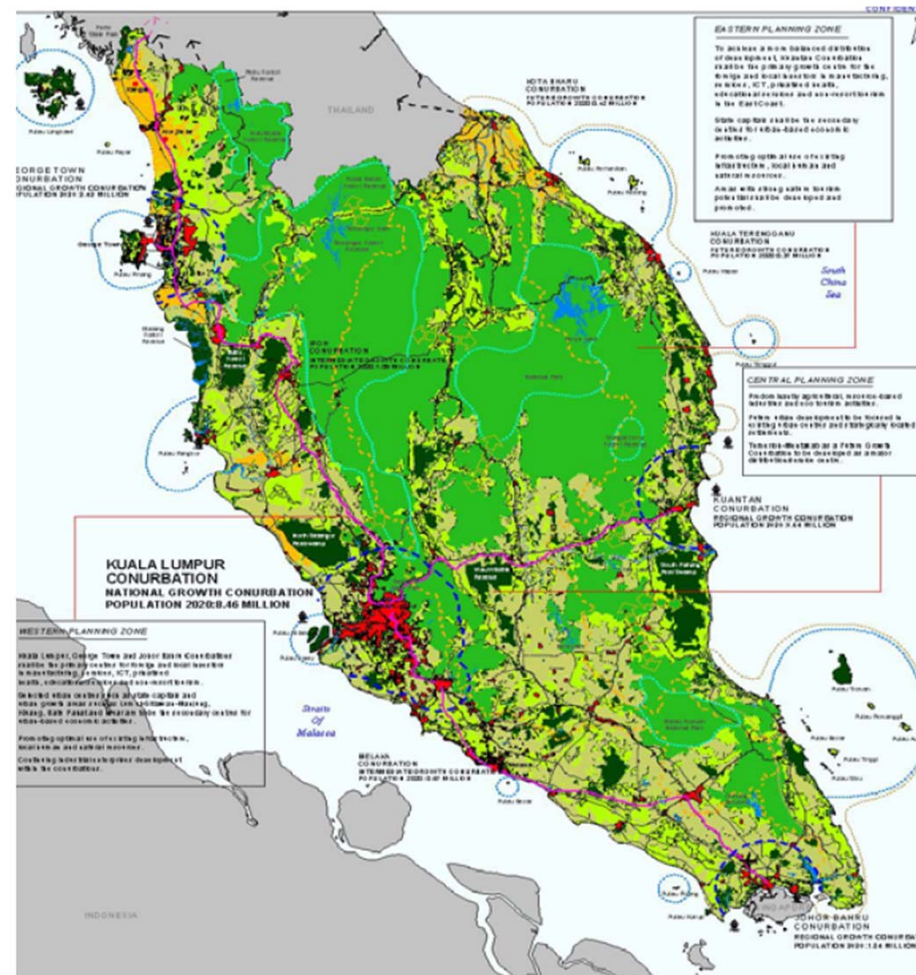
GIS APPLICATION IN DEVELOPMENT PLANS SYSTEM IN MALAYSIA

- Federal government, state government and local government.
- It published Development Plans utilizing GIS in implementation:
 - ✓ The National Physical Plan
 - ✓ The Regional Plan
 - ✓ The State Structure Plan
 - ✓ The District Local Plan



THE NATIONAL PHYSICAL PLAN

- Outlines the strategic policies for the purpose of determining the general directions and trends of the nation's physical development.
- GIS is used mainly for data collection, land suitability analysis and generate suitability maps.

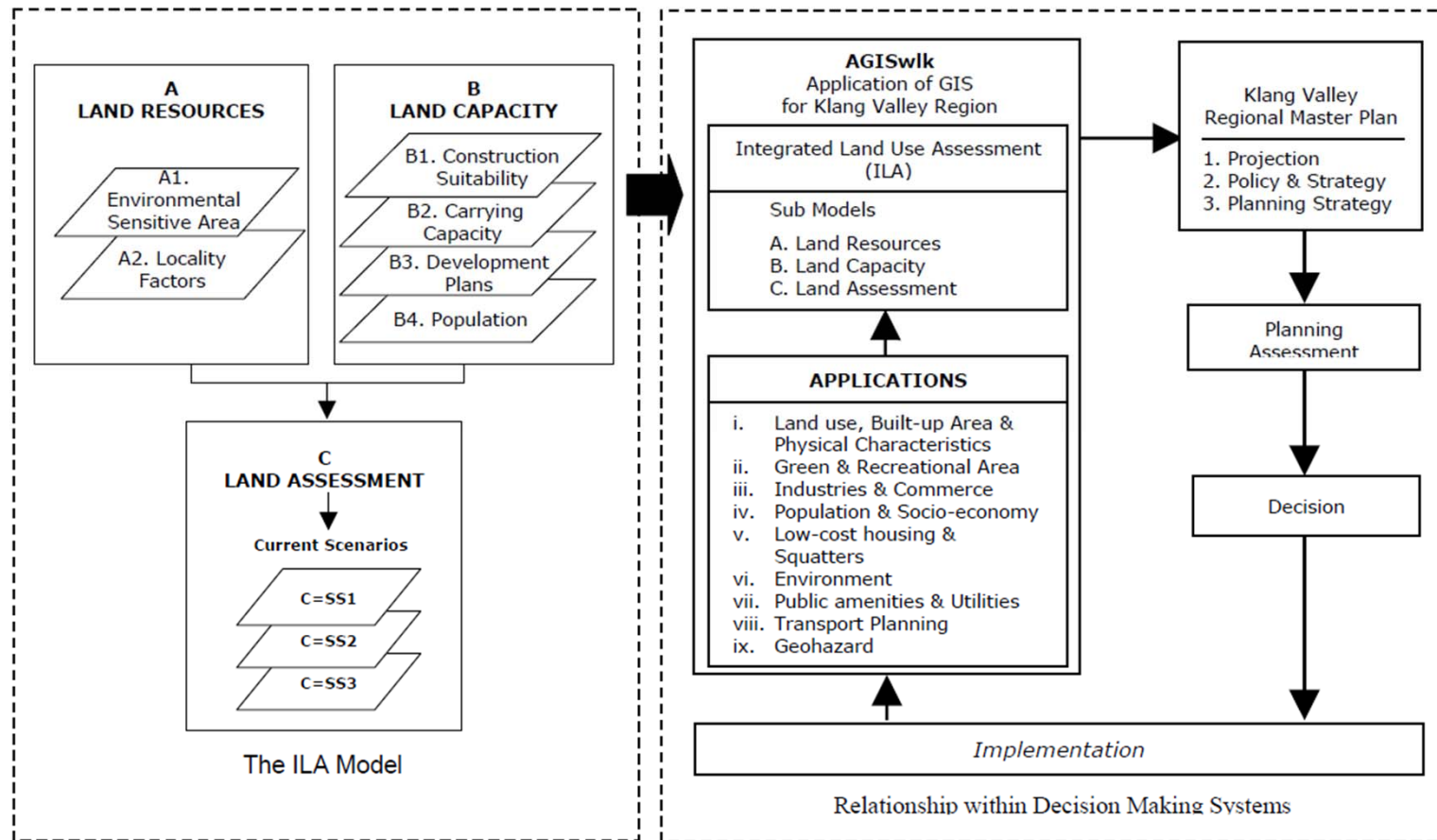


REGIONAL PLAN

- The information at this level helps to describe the existing situation .
- GIS improved decision-making process.
- GIS is identified as the main tool in the formulation of the regional plan.



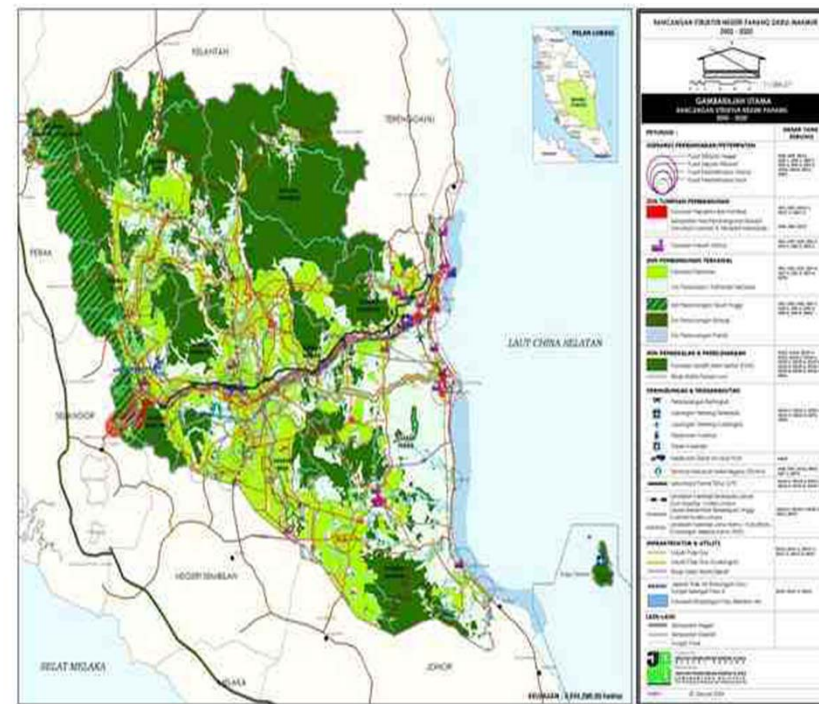
KLANG VALLEY REGIONAL MASTER PLAN



Model developed and implemented for Integrated Land Use Assessment of Klang Valley

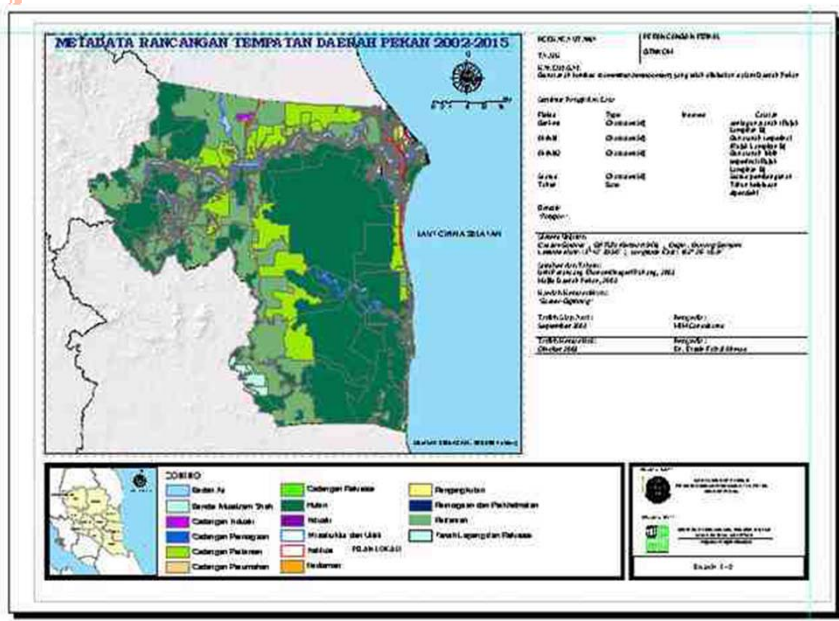
STATE STRUCTURE PLAN

- to initiate inspection on the state development when required or if changes in the sectoral policies occur.
- the preparation of the key diagram

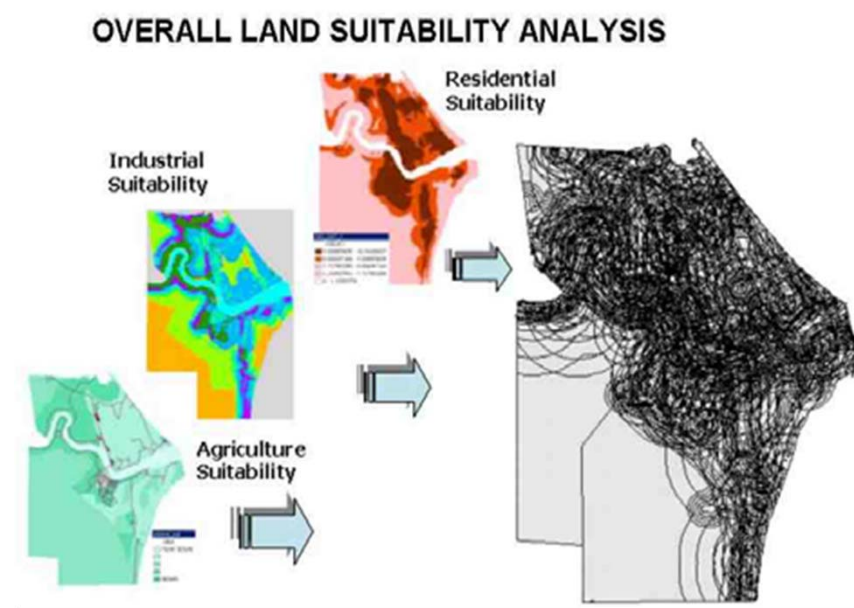


LOCAL PLAN

- The district local plans are the basis of development guidelines and control.
- For example, land use zoning, development density, building height, etc..



Zoning Plan for Pekan District Local Plan



Land Suitability Analysis

CONCLUSION

- Advantages of urbanization if controlled well.
- Ability of Planning Systems to control these development trends.
- Effects of GIT on urban and regional planning; improving decision-making, planning and management in Malaysia.
- Harries, et al 1993; GIS cannot serve alone.
- Planning requires 1) spatial information 2) updated 3) measures of spatial interaction.



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