**Web-based Geovisualization to Urbanization:**

**A case of urbanization processes in Asian populated cities**

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Abstract

Understanding of urbanization processes through geovisualization technique is important to urban planners, resource managers, policy makers, disaster management teams, NGOs, and other geospatial information users in order to enhance their works from spatial perspective. The main objective of this research project is to provide geospatial solutions related to urbanization processes in Asian populated cities such as Bangkok, Hanoi, Manila, Yangon, etc. through Web-based Geovisualization technique. In this project, we used Landsat MSS/TM/ETM, ALOS, ASTER Global Digital Elevation Model and other ancillary GIS dataset to explore the land cover changes in Asian populated cities and build spatial models to generate fine scale population distribution maps, estimate travel behavior patterns by integrating with person trip survey data provided by Center for Spatial Information Science, University of Tokyo and other land use change prediction models. All model outcomes can be visualized and analyzed through Web-GIS by providing geovisualization technique such as thematic mapping, quantitative analysis, profile line analysis, visual change analysis, report generation, etc. Any geospatial information users can access anywhere and make spatial decisions interactively.

Keywords: Geovisualization, urbanization processes, Web-GIS and Asian populated cities