APPLICATION GIS AND REMOTE SENSING TO MONITOR THE IMPACT OF LAND COVER CHANGE ON URBAN INUNDATION OF HO CHI MINH CITY

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ABSTRACT

The land cover changes are the natural process of the formation and development of a region, especially in Ho Chi Minh City, the economic growth center of Vietnam. However, these change has caused many environmental problems like urban inundation. In this paper, by using GIS and remote sensing the land cover change in the period 2003-2007 in inner districts and relation with urban inundation status were assessed. The results showed that the increasing of impervious surface such as: asphalt, concrete and residential land expanding from the north to the lowland. This change has caused thousands of hectares of surface water and drainage surface lost.

Therefore, this leaded to reduce water storage capacity for this area and increase the amount of runoff that contributes to inundation. Consequently, pointing out roles of the land cover changes on urban inundation will support for urban growth planners to make decisions, Master Plan and solutions to reduce flooding inundation for Ho Chi Minh City.

RESEARCH ON USING OGC STANDARDS TO BUILD A TOOL SUPPORTING SPATIAL DATA DISPLAY

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ABSTRACT

For spatial data, sometimes it is difficult for users to understand the content of the data if the data is not properly displayed. Design and style map is very important but they also take a lot of time and effort... However, that each current GIS software has its own style and cannot be reused for another GIS application, example the style of QGIS cannot be used for UDig, Udig style, and QGIS style cannot be used for WMS... It is wasted time and effort to re-style the map when using on another software or publish map services for use on the Internet. To address that, the OGC announced the SLD standard for using with the WMS service.

Currently, some GIS software has supported importing and exporting SLD file such as QGIS, Udig,... but these software do not fully support SLD standard. ArcGIS itself has a third-party extension that supports pretty well but takes a fee, making it difficult for users. Therefore, the study of building a tool to support spatial data display is necessary.