ABSTRACT

The Development of Roads and Bridges Information System In Siak Regency
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The subsector of regional infrastructure development especially the construction of roads and bridges is a major factor in speeding economic development in the region of Siak Regency, Riau Province. However, nowadays, information about the network of roads and bridges which is available in the office of Public Work Department on Housing and Infrastructure in Siak Regency -The Government Agency In Charge Of Such Matter- has been using the conventional method, so, the process in analyzing problem on the handling of roads and bridges network activity moves slowly and not in maximum capacity. To solve the problem, Geographic Information System (GIS) seems to be a proper method for the handling of roads and bridges network in such area. GIS is an integrated instrument which functions to help accelerate the process of planning and decision making involving the integration of spatial data as well as its descriptions to solve such problem.

The objectives of this research are: (1) carrying out the study and evaluation on existing information system, (2) searching the proper information system needed by the user, and (3) improving the existing information system at Public Work Department on Housing and Infrastructure in Siak Regency from the conventional method to the use of information system based on spatial data through prototype development.

This research of information system improvement is made by the use of Rapid Application Development (RAD) approach, by making case study on the development of roads and bridges information system in such area. The spatial data, which is used in this information, is the local map and topography map of Siak Regency, while the attribute data consist of basic information of roads and bridges network, technical data, condition data, historical data, and other supporting data. The said data are to be integrated into the information system, on roads and bridges network of such area.

By using this information, it is expected that Public Work Department on Housing and Infrastructure in Siak Regency will be able to analyze and to make decision better than before, on the handling matters of roads and bridges network, so that the activities will be more efficient and more effective.