ABSTRACT

In Bandung's Department of Education, there are some processes of managing and handling that less work effectively, including the handling of damaged school facilities, student distribution process, and monitoring process of BOS (Bantuan Operasional Sekolah). The problems in these processes are appeared because there is no digital school mapping with full and integrated information, so the decision making takes a long time with still do the analysis separately through the manual mapping. Therefore, this research aims to help the Bandung's Department of Education in handling these issues and educational policy planning by conducting digital school mapping through designing a web-based geographic information system. However, for this research, the monitoring process of BOS includes only two components, that are monitoring of fund allocation and fund distribution.

GIS (Geographic Information System) is a computer-based information system that is used to enter, store, check, call back, process, analyze, and generate geographically referenced data. Based on these explanations, the GIS is one perfect solution to assist the processes of handling and policy planning at the Bandung's Department of Education.

The designed GIS aimed to give four results. First, the GIS allow the user to update the data and obtain information from relevant parties online. Second, application of geographic information systems can provide spatial information, such as a map location of school buildings, street maps, maps for each school district, and other maps in the form of vector data, information and attribute data that can be visualized in the form of interactive maps. Third, the application is able to determine the priority for improvement for schools damaged by using the factor rating method based on the integrated spatial analysis. Fourth, this system provides ease in the process of monitoring the BOS with the existence of a real student data.

With the existence of this GIS is expected to help future planning policies so that existing education programs can be focused and on target. And for further research, it can be done by providing more complete information about the school data, so that the designed system can make the monitoring process for the other four components, such as the use of funds, services and complaint handling, financial administration, and reporting.

Keywords: GIS, school mapping, factor rating method