

## ABSTRACT

### *DESIGN AND BUILD OF A DROUGHT DISASTER INCIDENT MAPPING APPLICATION IN BANYUMAS REGENCY BASED ON ANDROID USING THE SCRUM METHOD*

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*Drought is one of the natural events that has a significant impact, especially in areas such as Banyumas Regency, Central Java. To overcome this challenge, this research proposes the design of an android-based drought disaster event mapping application using the scrum method. This application aims to provide quick and easy access to the community to get information about drought in the Banyumas Regency area. In addition, this application also allows the community to report drought conditions in their area, so that this information can be used by the government to monitor and take necessary actions. This application was developed by integrating data from key parameters such as rainfall, land use, land surface temperature, and land slope into an Android-based Geographic Information System (GIS). The Scrum method was applied in the application development to increase the flexibility and efficiency of the development team. Application testing was conducted using the blackbox method to detect errors and evaluate the functionality and interface of the application. The results showed that the developed application was able to produce a map of drought distribution in Banyumas Regency. The results of backbox testing also obtained 100% results so that the application can run as expected. Users can easily access the drought map and get information about conditions in various areas of Banyumas Regency. The scrum method proved effective in managing the development process of this application, allowing iteration and continuous improvement according to user needs. With this application, the community and government of Banyumas Regency will be able to better prepare for drought and reduce the negative impacts caused by it. This application can also be a reference for other regions that face similar challenges in handling natural disasters.*

*Keywords: Banyumas Regency, Drought disaster, Drought information, Mapping Application, Scrum*