Title: Flood Lead Time Determination of Davao City using Automated Rain Gauge and Water Level Monitoring System applying Linear Regression

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ABSTRACT

Davao City is one of a highly urbanized and developing area which is also a victim of its own economic development due to the natural aspects towards progress. With the arrival of extreme weather events, floods have been more common and more intensive than before. The Department of Science and Technology with the correlation of Project NOAH, there are installed devices in the upstream and downstream area in the rivers globally. These are Automated Rain Gauge (ARG) and Water Level Monitoring System (WLMS). The stated sensors are for the collection of data for the natural phenomenon prevention specifically in monitoring the water level in the rivers. With this available sensors and data, the system can predict the water level and time arrival of water in the Matina Pangi (downstream) and Waan (upstream) rivers without any human intervention. Also, the system can disseminate automatic early warning messages to the households living nearby rivers to prevent damage to property and save lives.