

Investigating Flood Warning Systems

Bvungo, Ivy (School: Cross County High School)

Southern Africa is experiencing increasing flooding hazards from a number of cyclones like Cyclone Dineo. The problem is made worse by lack of reliable flood warning systems. The purpose of this research was to investigate the problems linked to early and reliable flood warning systems in the low lying areas of Zimbabwe. An interview guide was carried out to find out what the Tokwe Mukosi community needed with regard to flood warning. The interviewees said that they needed an affordable, durable and self sustaining flood warning system. A background check was carried out to find out if such a system exists. It was found out that the gadgets available were too expensive for this community. The researcher drew visualised sketches and models of systems which attempted to monitor river water levels and give flood warnings as needed by the community. Three prototypes were constructed and tested several times at strategic point along the river near the community. The survey showed that the Tokwe Mukosi community needed an affordable, reliable and durable system to monitor the river water level and give them early flood warnings. Out of three flood warning gadgets made, one was finally chosen as the most suitable to address the needs of the Tokwe Mukosi community. The gadget made, successfully monitored river water levels. It successfully and reliably sent flood warnings to the community nearby.