Integration of remote sensing (rs) and geographic information system (gis) in monitoring and management of floods; case study budalangi area

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Abstract:

Flooding problem in Budalangi has been there for quite a long time. The flooding poses a major challenge to the riparian communities as well as the Kenyan Government and these calls for a solution to this problem as it hampers the development process, further increasing the vulnerability of the rural society and thereby perpetuating and increasing the incidence of poverty. In the past years, especially from the year 2001, the Ministry of Water and Irrigation (MWI) has been implementing flood control works aimed at taming flooding in Budalangi by the employment of structural measures but with little success (CAS consultants, 2006). Remote Sensing and GIS technologies have proved to be valuable tools to support effective early warning for disasters. They enable the collection and monitoring of data about atmospheric conditions and characteristics of the Earth’s surface leading to processes, which may bring about natural disasters. Such information can be used to help determine appropriate actions to reduce the disastrous effects of these processes.