

Vulnerability Assessment for Protection of Ghardaia City to the Inundation of M'zabWadi

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Abstract : The problem of natural disasters in general and flooding in particular is a topic which marks a memorable action in the world and specifically in cities and large urban areas. Torrential floods and faster flows pose a major problem in urban area. Indeed, a better management of risks of floods becomes a growing necessity that must mobilize technical and scientific means to curb the adverse consequences of this phenomenon, especially in the Saharan cities in arid climate. The aim of this study is to deploy a basic calculation approach based on a hydrologic and hydraulic quantification for locating the black spots in urban areas generated by the flooding and to locate the areas that are vulnerable to flooding. The principle of flooding method is applied to the city of Ghardaia to identify vulnerable areas to inundation and to establish maps management and prevention against the risks of flooding.

Keywords : Alea, Beni Mzab, cartography, HEC-RAS, inundation, torrential, vulnerability, wadi

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