

FLOOD HAZARD ZONING OF QUIBDO, CAPITAL OF CHOCO DEPARTAMENT, NORTH-WEST OF COLOMBIA

MOSQUERA MACHADO, S. and WAGNER, J.J. University of Geneva, Switzerland.

The main objective of this study was the evaluation of the inondability of a pilot zone in Quibdo, capital of the Choco in the north-west of Colombia. For this work we developed a methodology based on the use of Geographic Information Systems (GIS), the theories of frequential and kinematic hydrology as well as the numerical modelling of flooding. The elementary plans of information are articulated around three themes: topography, geology and hydrometeorologic data. We generated three flood hazard maps for periods of return standards of 10, 30 and 50 years. The hazard zonation shows that the flooded zone is more significant out of left bank than out of right bank of Atrato river. One of the most important results of this research work is that for the three intervals of time we can calculate the maximum height reached for the river at the time of exceptional events. This information is essential to define a minimum height of security for the typical habitat Palafitos of the area.