



Flood mapping of the trans-boundary river Soliette (Haiti and the Dominican Republic)

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Over the last decades, Isla Hispaniola (i.e. the territory shared by Haiti and the Dominican Republic) has been sadly affected by several hydro-geological disasters. In fact, the island has been involuntary protagonist of the international chronicles for being hit by the passage of several devastating hurricanes. Incalculable damages to structures and environment and thousand fatalities are the results of such events. A recent and glaring example is that of May 2004, when extreme and intense precipitations, originated by a tropical depression in the Caribbean Sea, occurred over the island, producing a devastating flash-flooding of the river Soliette trans-boundary catchment. The flooding destroyed most of the cities of Jimaní and Fond Verrettes and killed over 1,000 Haitian and Dominican people. The same event also killed 414 people in the Dominican Republic. This presentation shows the analysis of the hydrological and hydraulic behaviour of the river Soliette aimed at modelling the flood event of May 2004 and formulating a trans-boundary flood mitigation plan.