



Institutional capacity-building (ICB): an international cooperation initiative for the water resources management in Haiti and the Dominican Republic

L. Brandimarte (1), A. Brath (1), A. Castellarin (1), G. Di Baldassarre (1), E. Arizaga (2) and E. Fedeli (2)

(1) Faculty of Engineering -University of Bologna (Italy), (2) Istituto Italo-Latino Americano, IILA - Roma (Italy)

It's sadly known that over the past decades the territory of Haiti and the Dominican Republic has been exposed to the devastating passage of several hurricanes. Territories already poor in terms of natural resources and economically weak have been shaken by severe flood events that caused the loss of a number of human lives, the damage and collapse of infrastructures and the impoverishment of natural resources. The high hydrogeological vulnerability of the Haitian and Dominican territories seems to be due to three main causes: 1) the intense process of deforestation and land degradation; 2) the unplanned and uncontrolled urban expansion; 3) the lack of technical and organization capacities of the local institutions to deal with the hydraulic protection of the territories. Moreover, the lack of cooperation between the two Countries increases the difficulty of managing the shared territory of La Isla Hispaniola. On May the 24th of 2004 the transboundary River Soliette flooded, killing over 1000 people, wiping out dwellings and leaving behind desolation and poverty. After this flood event, the Istituto Italo-Latino Americano (IILA, www.iila.org) financed an international cooperation project, developed by the University of Bologna, involving local institutions from Haiti and the Dominican Republic for studying the River Soliette catchment area and planning interventions for mitigating the hydrogeological risk in the area. The project is structured in two phases, as follows. First, giving prominence to institutional capacity building as a possible non-structural measure, a 6-month master class on hydrogeological risk mitigation was given to 6 Haitian and 6 Dominican engineers, believing that an up-down knowledge transfer from a developed Country to developing Countries is the basis for improving local technical capabilities. Sec-

ond, the trained group of local engineers joined a team of experts from the University of Bologna (Italy) to analyse the 2004 flood event. The analysis was performed by coupling a semi-distributed rainfall-runoff model and a quasi-bidimensional hydraulic modelling. On the basis of the analysis outcomes, an intervention plan, including both structural and non-structural measures, was then proposed. Along with the technical results, the project represented a step forward towards a common and more responsible management of water resources of the island, wishing future cooperation between Haitian and Dominican technicians and administrators for an integrated management plan of transboundary catchments.