

Rainfall analysis was registered as extreme events in Mexico in 2007 and 2010.

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At the end of October, 2007 in the hydrological basin Grijalva-Villahermosa were registered torrential rains that have produced such serious consequences as - slide of a hillside close to San Juan Grijalva, Chiapas, which closed the free step of the current of the river Grijalva, one of the biggest rivers of Mexico; - extensive and long floods largely of the state of Tabasco; - economic losses bigger than \$ 700 million dollars in accordance with the estimations that the Mexican Association of Institutions of Insurances (AMIS) published. Before the disaster registered in 2007 the people of Tabasco remained very vulnerable, from what the Federal Government arranged resources both for hydraulic and for civil works in regions of higher risk of flood to prevent this type of disasters. Nevertheless, throughout the year 2008, 2009 and especially 2010 the people of Tabasco faced severe events of floods again although less serious that was registered in October - December, 2007. All these events of floods the National Commission of the Water justified with of extreme rains events calling them inclusive atypical rains, as well as with the increasing vulnerability of the population of the state of Tabasco, which is located in delta of the biggest river of Mexico and also it invades more and more his natural zones of flood. For the previous reasons, the target of this work is to analyze the intensity of rains registered in 24 hours observed as severe events; to determine the probability of his occurrence and to diagnose the synoptic situations that caused these events of precipitation. Also there was checked the complex topography of the region, the problems of deforestation in the state of Chiapas, as well as the management of dams that the Federal Commission of Electricity administers. On the basin of the river Grijalva four dams were constructed, where two of these are considered to be like the biggest of Mexico: La Angostura (the storage initiated on May 8, 1974) and Malpaso (the storage initiated on May 30, 1966). To analyze the dams management there was applied the information generated at the climatic and hydrometrical stations administered by the Federal Commission of Electricity and the Organism of Basins of South Border, National Commission of the Water (Organismo de Cuencas de Frontera Sur, Comisi n Nacional del Agua). The results of the realized analysis show that not in all the cases the presence of rain was the principal causer of the floods registered in Tabasco and Chiapas. For the previous reasons, one discusses the hypothesis on unadapted management of the dams; the excessive urban and rural development of the state of Tabasco which in sum with events of severe rains have induced series of critical situations in the region of the study.