

Resilience to floods in M' diq Fnideq province (Northern Morocco): a new methodological approach to managing the hydro-meteorological hazard

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In the face of climate change, resilience has become an important goal for many cities around the world. Morocco, with the specifics linked to its geographical position and socio-economic factors, deserves to be more studied by new and different approaches, especially in the management of hydro-meteorological hazards, like floods. Several different traditional methods were used to modelling, understanding and anticipating the phenomenon but the urban resilience is studied by few authors in Morocco. The approach should uncover the role of the urban system components, economic, institutional and natural. The central aim of this study is to develop a new resilience strategy of M' diq Fnideq Province (North of Morocco) to floods, across temporal and spatial scales to maintain or rapidly return to desired functions in the face of disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity. The Flood resilience index (FRI) is developed as an approach for evaluation of flood resilience using Geographic Information Systems. The research for this study started from the findings and conclusion of Meerow, Sara. 2016 and Batca, Jelena 2015.

Keywords: Resilience, floods, Flood resilience index, hydro-meteorological hazards, climate change, Mdiq-Fnideq province