



Long term post-flood damage assessments to analyze the strategies of adaptation at individual scale

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RETINA is a project which studies the opportunity for adaptation in the aftermath of flood events. To handle this research question, we consider adaptation to flood risk at individual and collective scale as well as the influence of the urban planning regulation (Flood risk mapping). For the purpose of this research, collective adaptation means actions that are undertaken at collective scale such as dikes, relocation of collective infrastructures (roads, treatment plant. . .) and individual adaptation means actions decided at individual level (households, enterprises or farmers) such as relocation, elevation of critical components, new organization. . . . In this presentation, we focus on individual adaptation and analyse which are the mechanisms that incite or constrain the adaptation to flood risk of individual assets considering their own trajectory. The originality of our approach is to carry out long term post-flood assessments and comprehensive interviews at individual scale. To catch the drivers of adaptation, we sequenced the interview guide in three periods: 1/ the situation before the reference event occurred, 2/ what happened during and just after the flood event, 3/ what happened from the flood event until the moment of the interview. Two case studies have been chosen. The first case study is the Aude department where an exceptional flooding occurred in 1999. The second case study is the Var department where more recent and frequent flood events occurred in 2010, 2011, 2014. On each case study, we plan to conduct about fifty interviews including households and economic activities.

In this presentation, we will develop methodological aspects on long term post-flood damage assessments. Carrying out a long term post-flood assessment enabled us to consider adaptation to flood risk among the whole of strategic decisions a household or an enterprise has to take. Moreover, we found out that contrary to what is usually assumed, the fact that the reference event was relatively ancient (fifteen years on Aude case study), we collected precise data on flood damage and the recovery process. We will also present some results concerning a specific type of individual adaptation i.e relocation. In particular, we found out that relocation was a long term process which required then long term post-flood assessments to be analyzed. Interviews also revealed that even if it is an action often promoted, in practice, a lot of constraints have to be overcome by households and enterprises.

Finally, we will give some insights for operational applications of this research. Mainly, it can be useful to improve flood damage functions or to help decision makers to define adaptation policies.