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Social uncertainty in flood risk: field research, citizens' engagement, institutions' collaboration.

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The well-presented results and the high efficiency of new tools in the evaluation of flood risk leads us to forget the fundamental tool for analysis which is field research, citizens' engagement and institutions collaboration.

Having in mind that field-research must be connected with modern tools, this paper shows that only engineers are appropriate for flood-study field-research. In addition, a training protocol is necessary. This protocol describes the method of the field-research, the organization of the team, legal distractions in field research, proper software needed for field research, characteristic points of interest, code name and proper depiction of the points. In addition, describes an efficient formula of the reports in order to be used in GIS and evaluated in DEM and risk analysis.

In addition, the cooperation of research and governmental institutions is crucial for the quantification of risks associated with natural hazards. Research institutions, local-government authorities and environmental agencies are all necessary, in order to combine both theoretical and practical knowledge for the generation of optimized risk-assessment results. Thus, a targeted methodology was formed including a process of successive cycles of communications relevant those agencies and institutions, aiming to utilize both their qualitative and quantitative knowledge and overall, to set a solid data-based foundation for the later stages of the flood-risk analysis.

Last but not least, in the process of investigating for locations with increased flood risk, citizens' engagement should be sought. During the research field or through an online form, the citizens should be asked to fill in a relative questionnaire with brief, multiple choice questions, regarding their residence, their years of residence, the frequency of floods that they can recall and their location and other relates topics. The permanent residents' experience can lead to the location of areas prone to flood that cannot be located otherwise, in terms of designs. Consequently, it is argued that the residents must play an active role in the conception, design and implementation of flood protection projects and infrastructure projects, overall.