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Developing a community-based flood resilience measurement standard

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Given the increased attention to resilience-strengthening in international humanitarian and development work, there has been concurrent interest in its measurement and the overall accountability of "resilience strengthening" initiatives. The literature is reaching beyond the polemic of defining resilience to its measurement. Similarly, donors are increasingly expecting organizations to go beyond claiming resilience programing to measuring and showing it. However, key questions must be asked, in particular "Resilience of whom and to what?". There is no one-size-fits-all solution. The approach to measuring resilience is dependent on the audience and the purpose of the measurement exercise. Deriving a resilience measurement system needs to be based on the question it seeks to answer and needs to be specific.

This session highlights key lessons from the Zurich Flood Resilience Alliance approach to develop a flood resilience measurement standard to measure and assess the impact of community based flood resilience interventions, and to inform decision-making to enhance the effectiveness of these interventions. We draw on experience in methodology development to-date, together with lessons from application in two case study sites in Latin America.

Attention will be given to the use of a consistent measurement methodology for community resilience to floods over time and place; challenges to measuring a complex and dynamic phenomenon such as community resilience; methodological implications of measuring community resilience versus impact on and contribution to this goal; and using measurement and tools such as cost-benefit analysis to prioritize and inform strategic decision making for resilience interventions. The measurement tool follows the five categories of the Sustainable Livelihoods Framework and the 4Rs of complex adaptive systems – robustness, rapidity, redundancy and resourcefulness –5C-4R.

A recent white paper by the Zurich Flood Resilience Alliance traces the literature on resilience in the area of disaster risk (see corresponding abstract of another session). The research gap, which was also highlighted in the 2012 National Academies of Sciences Paper (Disasters, Committee on Science and Public Policy, & Academies, 2012), is the lack of a consistent way to measure resilience, which is a complex systems concept, across different communities and over time. Without this measurement, evaluating the impact of projects, programs and policies on a community's resilience cannot be consistently made. In turn, the relative costs and benefits of potential interventions cannot be properly assessed to determine those which ought to be prioritized. The measurement of resilience contains both theoretical and practical components, but much of the research to date has been limited to the theoretical realm. There is a need for a set of indicators that can be systematically collected in the field to practically measure resilience. This presentation will examine both the theoretical and practical challenges this involves, and how this is being approached through a unique alliance between the research community, a private partner and field practitioners. We aim to help build consistency amongst those working on assessing and prioritizing effective resilience strategies. The Alliance between research partners and NGOs will be highlighted to show how such collaborations can support a continuous learning process in communities and contribute to improved flood resilience at community level and beyond. This includes the development and use of innovative evaluation tools that can aid communities in prioritizing projects and policies as well as demonstrating effectiveness to donors.