

Disaster Irrigation and Water Management towards Nexus (WEF) and Sustainable Development Goals

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Abstract for Plenary:

Collectively Irrational: Narratives in Flood Models and A General Theory of Environmental Behavior

Flood models predict that people who experience small and medium sized floods cope better than those who have experienced no floods at all (e.g., those who have the benefit of infrastructure that shield them from such floods.)

These communities will then be highly vulnerable when large floods strike because they have little adaptive power. This paper shows that this binary effect need not be true—by conducting a micro-level narrative analysis in flood prone communities in Assam, India, we find that while the “memory effect” of floods does decrease vulnerability in some instances, such memory effects do not always obtain.

The paper therefore suggests four distinct groups of flood responses: Aside from the well-established “memory” and “levee” effects, there are two other groups which may resist either effect. Our analysis finds four distinct narrative types: the Hardened Preparer, the Engineer, Discontent, and the Pessimist.

This paper put forward an explicitly socio-hydrological conception of resilience which takes into account the role of sociological indicators such as narrative types and perceptions. Such contextual understandings and narrative types can form the basis of generic resilience indicators which complement the anticipated outcomes of socio-hydrologic models generally. The session will also touch more generally on the irrationalities of collective environmental behaviors.

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