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The importance of co-design in satellite-derived drought risk financing

Markus Enenkel¹, Daniel Osgood², and **Rahel Diro**²

¹Harvard University, Harvard Humanitarian Initiative, Cambridge, MA, United States of America

(menenkel@hsph.harvard.edu)

²Columbia University, International Research Institute for Climate and Society, Palisades, NY, United States of America

(deo@iri.columbia.edu)

Several drought risk financing projects have been developed to strengthen the disaster resilience of the world's vulnerable communities, countries and regions. Satellite-derived information plays a vital role to characterize historical and current drought impacts. Various independent earth observation datasets can be used to cross-validate each other, strengthening the disaster narrative and reduce basis risk. However, satellite data require additional socioeconomic information, which often shows critical gaps, to close the gap between hazards, vulnerabilities and impacts. While satellite-derived information is considered to be objective there are various projects with payout trigger mechanisms that rely on subjective assessments, for instance expressed as a declaration of emergency. The next generation of risk financing solutions for extreme weather and climate events will have to merge these two perspectives. The World Bank's Next Generation Drought Index (NGDI) project might be the first attempt to link a convergence of evidence approach applied to satellite-derived insurance triggers with a guided integration of local expertise. The project aims to 1) avoid the perception of more complex technical methods as analytical black boxes 2) benchmark different datasets, model outputs and index parameters, and 3) lower the entry barrier for novel risk financing solutions by establishing local risk ownership. This study focuses on the first results of the NGDI project for Senegal.