



From the Mahanadi Delta to Sendai via South America: Building bridges between research, practice and international policy for disaster resilience assessments

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The concept of disaster resilience has gained momentum in recent decades and major international initiatives, such as the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction 2015-2030 and the Paris Agreement, all recognise the importance of fostering community resilience to natural hazards to save lives and reduce losses. Despite significant advances in the policy settings for disaster resilience assessment, the interpretation of the concept itself and its implications for practice and policy remain clouded and more research is needed to gather evidence of what resilience means for governments and communities. This paper aims to bring together the research work the authors have conducted in the field of disaster resilience assessments at their respective institutions (University of Southampton, UK and the UME Graduate School at the Institute for Advanced Studies of Pavia, Italy) with the practical implementation projects and international policy consultations they have been involved in under UNESCO's umbrella. The main findings of a research study conducted as part of the 'Deltas, Vulnerability & Climate Change: Migration & Adaptation' (DECCMA) project to investigate the differential resilience of local communities in the Mahanadi Delta, India using a development approach will be presented. Statistical methods have been employed to identify development hotspots and have been combined with a qualitative analysis of community perceptions of development and the mutual implications of development for disaster resilience to build case studies of community resilience to inform theory, policy and practice. The authors will then discuss the practical implications of this research study for the implementation of UNESCO's 'Enhancing Natural Hazards resilience in South America' (ENHANS) project, which seeks to train a critical mass of decision-makers, community leaders and experts on disaster risk and resilience assessments in four countries in South America (Ecuador, Chile, Peru and Uruguay), and the policy implications for their work as part of UNESCO's task force for developing UNISDR's New Ten Essentials for Making Cities Resilient, a checklist for building capacities for disaster resilience at the city level which aims to provide local authorities with tools, including scorecards and a handbook for local government leaders, to self-assess urban resilience and stimulate positive change, in line with the Sendai Framework.