Culture system and social resilience to flood impacts - An investigation of Achang communities in Yunnan, China

Mei Ai¹, Liang Emlyn Yang², and Qiong Zhou³

¹University of Munich, Faculty for geological sciences, Department of Geography, Germany (mei.ai@campus.lmu.de)
²Harvard John A. Paulson School of Engineering and Applied Science (SEAS), Harvard University, 02138 Cambridge, MA, United States
³School of History and culture, Minzu University of China, 100081 Beijing, China

Existing research has provided evidence on how culture mediates disasters and exacerbates or mitigates their impact in various contexts but is often concentrated among popular cultural heritage or large scale culture phenomena. The significance of culture belonging to indigenous communities is less studied in mainstream climate change adaptation, despite its importance in helping build local social resilience to climate impacts. An Achang indigenous settlement located in the western part of China’s Yunnan Province, where intense flash floods occurred frequently in its history, was used as a case study. The study aims to excavate the flood culture within the Achang community and examine how culture, particularly religion, blood-related organization, indigenous knowledge, and customary law have helped Achang communities for generations to build coping strategies to flood events. Data was gathered using participant observations in community activities, semi-structured interviews, more open thematic conversations, and document review in July 2023. Respondents included survivors for the storytelling, households for the semi-structured interviews, and officers of the local authorities for the key informant interviews. The study found that the Achang community has a rich flood culture, which profoundly influences the behavior of the local people during flood events. First, the Achang people are culturally rooted in Buddhist tradition of nature worship and an equanimity view of living, forming an environmentally friendly community and providing a refuge for the spirit. Second, self-organization forms based on geography and kinship plays an important role in responding swiftly and maintaining long-term collaboration in times of flood. Thirdly, the Achang people’s acquisition of ecological knowledge from nature has heightened their sensitivity to natural phenomena, enabling them to skillfully leverage their environment for home transformation and effective flood response. Finally, The Achang community is governed by a number of customary laws concerning flood prevention, which call on villagers to preserve forests, conserve soil and water, and contribute to post-disaster reconstruction for the common good. All of above provides an adaptable culture system from values-knowledge-institutions-practice with a strong ecological view and that is flexible enough to accommodate the adjustments needed to respond to changes. The relocation case in the Achang community illustrates that scientific disaster reduction decisions need to consider local flood culture to establish effective interventions in indigenous flood hotspots, further becoming the foundation for community resilience. As such, greater effort should be made by the State to full-
scale investigations of these cultural, and the participation of indigenous flood culture in the planning and implementation of disaster risk reduction intervention.