

## Measuring Psychological Impacts of Collaborative Modeling in African Mountain Systems

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**Abstract.** Collaborative modeling is a process-based method that incorporates diverse actors in the collective construction of a model, usually designed to address a specific social need. The theoretical foundation of participatory approaches emphasizes their ability to facilitate social learning, which in turn can produce transformative knowledge (Pahl-Wostl et al. 2008). Social learning is still a relatively ill-defined concept, and many scholars have struggled to distinguish it from the conditions that facilitate it. Reed et al. (2010) propose that in order to prove social learning has occurred, we must first show that a change in understanding has taken place at the level of the individual, then demonstrate that the change has permeated some wider social unit through the interaction of those individuals. The tools for analyzing both individual change and socially mediated change can be found in the field of cognitive anthropology, which proposes that culture is essentially the shared knowledge that exists in a society and which is simultaneously located within the individual and the collective (Dressler 2017). My proposed research uses a range of model structures to understand (1) whether engagement with a collaborative modeling process influences *individual attitudes* towards conservation, (2) whether there is *cultural consensus* in these impacts, and (3) whether certain *types of models* have stronger impacts than others. Measuring the psychological and cultural impacts of modeling will inform our understanding of which models are appropriate for use in African mountain systems.