What’s governance got to do with it? Examining the role of municipal-level governance in forest conservation

**Presenter:** Rayna Benzeev; University of Colorado Boulder

**Presenter Email:** rayna.benzeev@colorado.edu

**Authors:** Rayna Benzeev, University of Colorado Boulder;
Bradley Wilson, University of Arkansas;
Lauren Redmore, Texas A&M;
Megan Butler, University of Minnesota;
Karuna Paudel, University of Georgia;
Lucía Zarba, National University of Tucumán;
Paulo Massoca, Indiana University Bloomington

In the Brazilian Amazon, forests are formally governed in a complex, multi-level system that comprises a range of actors at federal, state, and municipal levels. Yet, few studies account for differences in governance capacity, such as variations in policy formulation, planning, and implementation, at the municipal level. Although these characteristics have been linked to deforestation at coarser scales, the relationships between municipal governance and deforestation rates are still largely unclear. Here, we present initial findings from a National Socio-Environmental Synthesis Center (SESYNC) Graduate Pursuit seeking to better understand the relationship between formal municipal-level governance and forest loss in Brazil. We compiled indicators of municipal-level governance from publicly available sources from 2004 to 2015 for 772 municipalities in the Brazilian Amazon. We analyze these indicators in a latent variable model to characterize municipal-level governance dimensions, drawing on the World Bank Worldwide Governance Indicators (WGI) as a guiding conceptual framework and incorporating additional elements of social equity and environmental governance. We compare these results with deforestation rates to assess the relationship between deforestation and municipal-level governance dimensions. Our research constitutes an important first step towards quantitatively analyzing the variance and interrelationships between subnational governance dimensions in Brazil. In ongoing work, we will integrate our governance analysis into a predictive forest loss model to improve broader understanding of subnational governance in relation to forest conservation.