Project Summary

Project purpose

This project investigated the effectiveness of community-based ecotourism as a strategy to enhance alternative livelihood strategies, incentivize conservation, and promote the equitable distribution of the economic benefits of tourism among residents of a small town, Carmelita, in the protected forests of the Maya Biosphere Reserve, Guatemala. As ecotourism development enterprises globally often fail to deliver the desired conservation benefits and overestimate the socio-economic benefits to local host communities, this research investigated how the community-management of tourism affected livelihoods, poverty alleviation, and attitudes towards conservation through a case study.

Completed data collection

I spent 10 weeks conducting fieldwork in the Maya Biosphere Reserve with the majority of time spent in the community of Carmelita, one of the resident community-managed forests of Reserve. I also spent time in the Flores/San Benito/Santa Elena urban area just south of the Reserve to coordinate with my local research partners from Rainforest Alliance and the Association of Forest Communities of the Petén. For the research, I conducted semi-structured interviews with 10 key informants from local government, NGOs, and the community of Carmelita knowledgeable about goals for tourism management in the community as well as semi-structured interviews and livelihood analyses with 43 residents of Carmelita (in 22 households). The Carmelita Cooperative also shared data with me recording registered members of the Cooperative, registered tourism service providers, and wages paid to tourism service providers.

Results

Summary of research results

The two research questions for this study were: 1) whether tourism alters livelihood strategies in ways that affect conservation and increases income among participating individuals in the community, and 2) the social equity of tourism by exploring what social barriers exist to participation in the cooperative. Through analyses of the tourism participation records and qualitative coding of the recorded interviews, we found that there were high levels of local participation in tourism (with 19/22 interviewed households receiving some sort of income from tourism) and that tourism jobs provided among the highest wage-earning opportunities for Carmelita residents. Nonetheless, the study suggests that tourism income alone is insufficient to support Carmelita households as most households relied on multiple jobs and the current tourism sales were insufficient to provide steady employment for all registered service providers. Interviewees largely described that the opportunity to participate in tourism was available to anyone in the community who was interested. However, the increased formalization of the industry did make getting involved more complicated and the physical requirements made it harder for older individuals. Residents described strong motivation to protect the forests in Carmelita. Income earning opportunities in tourism were one, but not the only or most important motivation. To date, I have collected all project data, transcribed all recorded interviews,
checked transcripts against the recordings, and used an inductive coding approach to analyze interview data. I have performed statistical analyses examining the gendered distribution of jobs in tourism and whether mean monthly wages in tourism differ from the minimum mean monthly wage.

**Completed research reports and planned publication**

I am preparing a manuscript for submission to the journal *Tourism Management*. This manuscript will form the basis for the first chapter of my dissertation. Other written results from the investigation include a technical report and info- graphic summarizing the project results, which I shared with the Carmelita Cooperative, Rainforest Alliance, and the Association of Forest Communities of the Petén.

**Conference presentations and ongoing collaborations**

I have shared this study as an oral presentation at the January 2020 Conference of Latin American Geographers (CLAG), a blitz talk at the February 2020 Society for Personality and Social Psychology Sustainability Psychology Preconference, and a poster presentation at the September 2019 International Conference on Sustainable Development. I used the data from this project as the basis for my seminar presentation in NR 8107, a requirement for all NRSM graduate students. My participation in CLAG has also enabled a collaboration between Maya Biosphere Reserve scholar Dr. Jennifer Devine, NRSM graduate Dr. Megan Butler, and myself on a book chapter addressing tourism development and research methodologies in the Reserve.

**Grant proposals**

This project informed my grant proposals to the National Science Foundation Graduate Research Fellowship (submitted, unsuccessful) and the University of Minnesota Interdisciplinary Doctoral Fellowship (submitted, unsuccessful). I will incorporate data from this project in future planned grant applications to the National Geographic Society, Rufford Foundation, Fulbright Fellowship, Kleinhans Fellowship, and University of Minnesota Thesis Research Travel Grant. I submitted proposals and received travel grant funding from the UMN Council of Graduate Students, CFANS Graduate Student Board, and NRSM program to share my research at the conferences described in the previous paragraph.

**Future project plans**

**Progress towards dissertation**

This project forms the first chapter of my dissertation, which I plan to defend in May 2023. For the additional chapters, I plan to compare tourism development in five other Maya Biosphere Communities with that in Carmelita to understand how the local livelihood generation potential and conservation incentives differ in communities’ with more centralized and less local management.

**Future research**

This project allowed me to pilot interview questions and livelihood analysis methods that I will use in the additional communities. The results of this study on residents’ conservation values and livelihood activities will inform my development of a survey to compare livelihoods and environmental values across Maya Biosphere Reserve communities. Specifically, this research inspired my further research questions about how individuals’ definitions of conservation relate to their livelihood activities.