

COMPARING THE IMPACTS OF COMMUNITY-BASED TOURISM DEVELOPMENT ON  
LOCAL LIVELIHOODS AND EMPOWERMENT

A Dissertation

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## Dedication

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## Abstract

For decades, policymakers, scholars, and development practitioners have promoted community-based tourism (CBT) for sustainable development in socioeconomically marginalized rural communities. However, the mixed results of these initiatives warrant further study into the mechanisms through which community-management of tourism leads to local livelihood opportunities and community empowerment. This dissertation responds to this need through a comparative case study of CBT management models in the Maya Biosphere Reserve, Guatemala. Different trajectories of community tourism involvement in the three gateway towns to the most visited parks in the reserve make it possible to study the role of community-tourism management compared to tourism development in strictly protected areas and in the private sector, in the local livelihood and empowerment outcomes of tourism. During approximately 10 cumulative months of ethnographic field research in the Maya Biosphere Reserve, I applied the Sustainable Livelihoods Framework (SLF) and Community Empowerment Framework to compare the impacts of tourism and its role in residents' livelihood activities. Through semi-structured interviews, focus groups, content analysis, participant observation, and 134 livelihood surveys with household heads across the three towns, I find that community-based management of tourism supports a wider distribution of local tourism income-earning opportunities and overall greater local empowerment than conventional growth-oriented, private sector led tourism development in strictly protected areas, in part through emphasis on training opportunities and recognition of the compatibility and tradeoffs between tourism and residents' other livelihood activities. Nonetheless, difficulties achieving social unity and differential individual barriers to tourism participation make ensuring equitable tourism community-tourism development an

ongoing challenge. Tourism becomes part of integrated household livelihood portfolios, rather than supporting households alone or replacing small-scale agricultural activities. Overall, this dissertation contributes to understandings of the role of CBT in sustainable development as well as a methodology for more closely analyzing and comparing the livelihood outcomes of tourism development.

*Por décadas, políticos, académicos, y practicantes del desarrollo sostenible han promovido el turismo comunitario en comunidades campesinas a manera de crear oportunidades económicas e incentivar la conservación. Sin embargo, estas iniciativas han obtenido resultados mixtos en la práctica. Por este motivo es importante investigar como el turismo comunitario contribuye a los sustentos locales y el empoderamiento comunitario. En esta tesis, comparo diferentes trayectorias del desarrollo turístico en tres comunidades aledañas a los parques nacionales más visitados de la Reserva de la Biosfera Maya en Guatemala. Evaluó diferencias en como el turismo comunitario y el turismo convencional en el sector privado y en áreas protegidas contribuye a los sustentos y el empoderamiento comunitario. Realice investigación etnográfica durante aproximadamente 10 meses. Esta investigación incluyó entrevistas semiestructuradas, grupos focales, análisis del contenido, observación participativa y 134 encuestas del hogar sobre los sustentos. Asimismo, aplique los esquemas de los Sustentos Sostenibles y Empoderamiento Comunitario, para comparar los impactos del turismo y su rol en los sustentos de los residentes de las comunidades aledañas. Encuentro que el manejo comunitario del turismo mejor contribuye a diversas y dispersas oportunidades locales de ganarse la vida que el turismo convencional, en un parte por oportunidades locales de*

*capacitarse en turismo y en otro parte por poner atención en la compatibilidad de turismo con las otras actividades económicas locales. Sin embargo, dificultades con lograr unión social y diferentes obstáculos individuales para participar en turismo causan que la equidad en el turismo comunitario siga siendo un reto. El turismo es una parte importante de los sustentos locales, sino no completamente apoya los hogares solamente ni reemplaza la agricultura de baja escala. En total, la tesis contribuye a entender el papel del turismo comunitario en el desarrollo sostenible y brinda una metodología para analizar y comparar los impactos de turismo en los sustentos locales.*



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## **List of abbreviations**

ACOFOP: Asociación de Comunidades Forestales del Petén

ASODESTY: Asociación de Organizaciones para el Desarrollo Sostenible del Territorio de  
Yaxhá

CBT: Community-Based Tourism

CFE: Community Forest Enterprises

CIFOR-PEN: Center for International Forestry Research Poverty Environment Network

COCODE: Consejos Comunitarios de Desarrollo urbano y rural

CONAP: Consejo Nacional de Áreas Protegidas

COINCY: Cooperativa Integral de Comercialización de Yaxhá

DFID: Department for International Development

FAO: Food and Agriculture Organization (of the United Nations)

MBR: Maya Biosphere Reserve

IIEP: Instituto Internacional de Planeamiento de la Educación

INGUAT: Instituto Guatemalteco de Turismo

INTECAP: Instituto Técnico de Capacitación y Productividad

MAGA: Ministerio de Agricultura, Ganadería, y Alimentación

NGO: Non-Governmental Organization

OMYC: Sociedad Civil Organización, Manejo, y Conservación Comunidad Uaxactún

RA: Rainforest Alliance

SITEAL: Sistema de Información de Tendencias Educativas en América Latina

SLF: Sustainable Livelihoods Framework

UNESCO: United Nations Educational, Scientific, and Cultural Organization

UNWTO: United Nations World Tourism Organization

## Role of the researcher

“If you have come here to help me, you are wasting your time. But if you have come because your liberation is bound up with mine, then let us work together.” -Lilla Watson

“If there is no friendship with them and no sharing of the life of the poor, then there is no authentic commitment to liberation, because love only exists among equals.”-Gustavo Gutierrez

The above quotations, pinned to the wall of my cubicle where I wrote much of this dissertation, ground my philosophy and motivation for research in sustainable natural resource management, particularly a commitment to community-engaged research to be part of meaningful actions redressing the injustices of poverty and environmental degradation. On a theological level, the themes of Catholic social teaching, particularly options for the poor and vulnerable, and care for God’s creation, motivate me to apply my interests and skills developed as an environmental social scientist toward these themes. I first became interested in conducting research in Guatemala particularly, where this dissertation is focused, while serving as the Asylum Intake Coordinator at the Northwest Immigrant Rights Project. Daily confronted with the injustices of poverty, violence and persecution that displaced my clients, I desired to become part of proactive work improving living conditions in Guatemala and was inspired by the example of the Maya Biosphere Reserve’s community concessions, which have successfully stemmed deforestation and enhanced livelihood options for residents through community forest management.



This motivation, coupled with my pragmatic ontology<sup>a</sup> as a scientist, leads me to gravitate toward mixed methods research that allows for extended time in the field developing relationships with individuals and communities to better incorporate their research needs and learn from those with the most extensive knowledge of the problems they confront. Hence, I apply qualitative and quantitative research methods to gather information useful for addressing these issues. As a North American in Guatemala, I am especially aware of the historical and political conditions, particularly U.S. involvement in the Guatemalan civil war and conservation initiatives in the country (Grandin et al., 2011) that simultaneously challenge my role as a foreign researcher, while reinforcing my perceptions of the interconnectedness and responsibility that U.S. citizens have toward supporting more equitable land rights, immigration, and sustainable development policies in Guatemala.

My identities as a PhD student, U.S. middle-class passport holder, Spanish-as-a-second-language speaker, and white, childless, 20-something woman traveling alone influence my perceptions and how I was perceived during fieldwork. In the communities of Carmelita, Socotzal, and Yaxhá where I conducted research, I introduced myself as a student interested in understanding how tourism can better support local job opportunities and what residents had noticed about the impacts of tourism in their communities. As a secondary role, upon request from children, parents, and community leaders in each town, I led regular English classes for children and youth. Collaborations with the Petén Rainforest Alliance office, and the Association of Forest Communities of the Petén, NGOs that represent and provide technical accompaniment

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<sup>a</sup> Ontology is a set of beliefs about the nature of reality. A pragmatic ontology is a pluralistic viewpoint that recognizes singular and multiple realities (a quasi-objective reality that can, to some extent, be measured, and the realities of individuals' diverse perspectives and lived experiences that cannot be). The role of research is to solve problems. Pragmatic ontology holds that "truth is what works at the time" (i.e., what solves those problems; Creswell & Creswell, 2018, p. 58; Creswell & Plano Clark, 2007).

and funding to Maya Biosphere Reserve community organizations, made this research possible. Through guidance on developing research questions of interest for their work and developing culturally appropriate interview and survey questions, they provided essential introductions to community leaders, communities, and logistic support for fieldwork. Building upon the over 15-year partnership between University of Minnesota and Rainforest Alliance, I shared technical reports and presentations, non-identifiable data, and recommendations with Rainforest Alliance to assist their mission supporting sustainable community-based forest enterprises.

## Introduction

### Background

#### *Sustainable development and community-based natural resource management*

While the importance of forest conservation for biodiversity, ecosystems functions, and carbon sequestration is well-acknowledged, forests are also essential to the livelihoods of millions of people worldwide, particularly financially poor people (FAO, 2018; Angelsen, 2014). Historic approaches to conservation promoted tourism in strictly protected national parks with limited to no human influence, displacing local and Indigenous communities, undermining land tenure, governance, and traditional livelihoods, and failing to take into account the conservation motivations of local stakeholders (Gavin et al., 2015; Fernández-Llamazares et al., 2020; Honey, 2008; Igoe, 2004). Justice concerns with strictly protected areas and increasing recognition that collaborative conservation approaches and Indigenous and community-based natural resource management may conserve forests better or at least as well as protected area approaches have led to community-forest enterprises (CFE) as alternatives to dually promote local livelihoods and conservation (Suiseeya, 2017; Ellis & Porter-Bolland, 2008; Min-Venditti et al., 2017; Bray et al., 2008; Blackman, 2015; Hodgdon et al., 2013; Fernández-Llamazares et al., 2020). Nevertheless, many CFE demonstrate mixed conservation and economic success, and much less attention has been paid to livelihood indicators in these projects (Salafsky & Wollenberg, 2000; Rasolofoson et al., 2015; Hajjar et al., 2016). In this context, we particularly need better understandings of when and how community-based resource management and tourism (as one type of CFE) enhance, rather than limit local community livelihoods. In my dissertation, I

compare how differing tourism management approaches and levels of local control over tourism can better deliver local community empowerment and livelihood promotion objectives.

Since the 1970s, scholars and policymakers alike have increasingly turned to the concepts of sustainability and sustainable development to address the interrelated wicked problems of tropical deforestation and rural poverty (Purvis et al., 2019). One of the earliest definitions of sustainable development emerged from the United Nation's sponsored publication of the Brundtland report in 1987, defining sustainable development as that which "meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). This dissertation follows Sen's conceptualization of development as freedom, where poverty is a deprivation of capacities that limits one's ability to live the type of life to which one aspires (Sen, 1990, 2001). Sustainable development, then, entails capacity building in such a way as to alleviate poverty, while using natural resources in such a way that future generation's capacity building opportunities are uncompromised. While the concept of sustainability belongs to no singular academic discipline and lacks one cohesive theoretical definition, most definitions, including those used in this dissertation, focus on a tripartite model of overlapping circles representing the environment, society, and the economy (Purvis et al., 2019). Particularly, I focus on the linkages between environmentally based livelihoods and how social and political management practices mediate access to these.

Richer analysis of the livelihoods impacts of CFEs is warranted, considering that one meta-analysis of 267 peer-reviewed publications found that only 30-40% of the studied community forestry cases reported on livelihood indicators (Hajjar et al., 2016). Further, careful consideration of various stakeholders' goals in implementing CFEs as a sustainable development strategy is essential, both for reasons of justice through recognizing historically marginalized

rural communities' stake in forest management decisions (Suiseeya, 2017), and because comparing the efficacy of CFEs as sustainable development strategies more broadly requires context-specific knowledge of purpose and implementation of individual CFEs (Stronza et al., 2019; Fernández-Llamazares et al., 2020). Opportunities for livelihood improvement within CFEs more broadly depend on resources and community capitals available within communities as well as the institutions and processes that govern access to these (Scoones, 1998; DFID, 1999; Emery & Flora, 2006). Agricultural intensification or extensification, diversification, and migration may all serve as alternatives to increase livelihood resilience in the face of shocks. Hence, better understandings of the broader livelihood context lead to more nuanced understandings of the relationship between CFEs, livelihoods, and the natural resource base (Scoones, 1998; Hussein & Nelson, 1998; Ashley, 2000).

#### *Tourism as a community-based enterprise*

One potential type of CFE that warrants special attention is tourism. Nature-based tourism was the fastest growing sector of the tourism industry pre-pandemic and is the sector expected to recover most rapidly after COVID-19 (FAO, 2018; Paredes et al., 2023). Particularly given the size and projected growth of nature-based tourism, research on how this tourism can be managed for local livelihood benefits is imperative. Policymakers have pitched tourism as a sustainable development strategy, a means of generating revenue and employment in less industrialized nations through a non-consumptive use of forest resources that encourages forest conservation (McCool & Bosak, 2016; Spenceley, 2008). Several case studies suggest that participation in tourism may increase and diversify rural household incomes (Hanazaki et al. 2013; Su et al. 2016; Hernandez Cruz et al. 2005). Nevertheless, the local socioeconomic and

conservation benefits of tourism are often over-estimated and unequally distributed (Schilcher, 2007; Mitchell & Faal, 2007; Stronza, 2001). Gender barriers may limit opportunities for women to participate in tourism or influence management decisions (Moscardo, 2008; Tran & Walter, 2014; Usher & Morais, 2010) at the same time that limited educational opportunities may prohibit some of the poorest members of the community from participating in tourism enterprises (Saufi et al., 2013).

Understanding how and when tourism actually meets livelihood enhancement objectives becomes increasingly relevant as the industry rebuilds in marginalized communities following the pandemic (Higgins-Desbiolles, 2020). Focusing on what strategies tourism communities can employ to enhance local livelihood resilience and achieve environmental conservation goals in the face of shocks, such as the COVID-19, is especially important (Scoones, 1998; Gössling et al., 2021; Ntounis et al., 2021; Steenbergen et al., 2020). Rather than operating under the assumption that tourism will or should entirely replace existing livelihoods and reliance on local forest resources, researchers can better understand tourism development through the Sustainable Livelihoods Framework (SLF) that recognizes the importance of livelihood diversification and the differential barriers community members may face accessing livelihood options such as tourism (Scoones, 1998; Laeis & Lemke, 2016; Ashley, 2000).

Scholars have also critiqued tourism as part of a neoliberal development agenda through the commodification of place and culture and the displacement of local and Indigenous peoples in the name of tourism promotion, similar to the models grounding strictly protected conservation areas, where tourism is deemed the only appropriate resource use (Nixon, 2011; Devine, 2014, 2017; Schilcher, 2007). The conservation benefits of tourism are also questionable, given that tourism may increase demand for forest products or shift local livelihood

patterns in ways that contribute to deforestation (Brandt & Buckley, 2018; Stronza, 2007; Hernandez Cruz et al., 2005).

In this way, tourism falls short of the goals set by alternative tourism initiatives, such as sustainable, ecotourism, and community-based tourism. Nonetheless, Stronza et al. (2019) point out that these alternatives are often conflated with any outdoor recreation, complicating meaningful evaluations of their impacts. Scheyvens (1999) argues that alternative tourism initiatives to conventional tourism growth in the private sector can only be considered successful when local communities have at least some management authority, the socioeconomic benefits are equitably distributed, and tourism development empowers the local community. She proposed the local community tourism empowerment framework to evaluate the sustainability of tourism initiatives. This framework describes that tourism must contribute to the economic (in terms of lasting income gains distributed throughout the community), psychological (in terms of enhancing self-esteem of community members through the appreciation of their community and culture as well as through increased access to vocational and educational opportunities), social (in terms of maintaining or enhancing the local community's equilibrium and social cohesion) and political (in terms of actively having a voice in tourism management decisions) empowerment (Scheyvens, 1999).

This empowerment framework more closely aligns with capability approaches to development (Sen, 1990, 2001) than purely neoliberal models that promote tourism for economic growth (Schilcher, 2007; Scheyvens, 2007). At the community-level, developing tourism for local empowerment should then entail sufficient local community agency to promote community-desired economic, psychological, social, and political benefits (Scheyvens, 1999). More recently, scholars have proposed the addition of an environmental dimension to this

framework, arguing that empowering local communities entails mitigating negative environmental impacts of tourism and conserving areas around the community (Mendoza Ramos & Prideaux, 2014; 2018). Although most evaluations of tourism's contributions to community empowerment employ qualitative case study approaches, some authors have also created quantified scales to assess the empowerment dimensions and how they relate to residents' attachment to place (Strzelecka et al., 2017a, b). In my dissertation, I examine under what management conditions tourism contributes to local community empowerment paying close attention to economic empowerment and the livelihoods supported through tourism.

Community-based tourism (CBT) can be conceptualized as a particular type of CFE intended to promote community empowerment through tourism in which members of a geographic community engage in collective action to promote a small to medium scale local tourism enterprise (Spenceley, 2008; Yanes et al., 2019). Through a content analysis of 68 case studies, Zielinski et al. (2020) noted 77 factors contributing to whether CBT initiatives realize the social and economic goals of the community. Yanes et al. (2019) argue that policies in developing countries aimed to promote socially inclusive and ecologically sound tourism fail to develop explicit criteria and conditions for actually fostering participatory and inclusive community-based tourism. Nonetheless, scholars expect CBT initiatives to be more successful than conventional, mass, and strictly-protected area tourism at empowering local communities and contributing to local socioeconomic and environmental benefits (Scheyvens, 1999; Spenceley, 2008; Schilcher, 2007; Stronza & Gordillo, 2008; Tolkach & King 2015).

Better understandings of the conditions in which tourism initiatives empower local communities and dually promote local livelihood improvement and conservation are necessary, especially as the mechanisms through which tourism initiatives achieve these goals are



understudied (Agrawal & Redford, 2006; Hill et al., 2015; Spenceley & Meyer, 2012). Nyaupane and Poudel (2011) found linkages between tourism development, livelihoods, and biodiversity conservation in communities surrounding Chitwan National Park in Nepal, although the strength of these linkages depended upon the degree of tourism development. Locally-voiced support for conservation initiatives, such as biosphere reserves, may be insufficient to actually stem deforestation pressures without institutions that actively enable participatory conservation. For instance, Hill et al. (2015) described that while residents of the Vizcaino Biosphere Reserve in Mexico voiced support for conservation activities, limited institutional capacity for redressing regional socioeconomic inequalities and promoting local participation limited actual community involvement in these activities. Moreover, local participation in community-based natural resource management initiatives is not a simple hierarchy of community involvement nor does participation necessarily entail empowerment. While Arnstein's (1969) ladder of participation suggests that higher levels of community-engagement from tokenism to actual management authority are more likely to result in success, more recent work in community natural resource management addresses the multidimensionality of participation and how other factors like agency, tenure, who the participants are, the nature of the conservation initiative, and the projects duration also have critical implications for participatory natural resource management (Ross et al., 2013; Cornwall, 2008). Community-based conservation initiatives, while viewed as preferable to fortress conservation approaches that entirely undermine local access to land, may still lead to community disempowerment even if successful at preserving forest cover if the livelihood benefits from conservation activities are not realized locally (Noe & Kangalwe, 2015). Hence, better understandings of what linkages exist between community-management, participation in CBT, and livelihood outcomes are necessary.

## Dissertation research objectives

In my dissertation, I evaluate under what conditions tourism initiatives actively promote local community participation and empowerment under Scheyvens (1999) framework, focusing especially on empowerment as manifested in livelihood opportunities. I compare CBT to private-sector led tourism development in gateway communities to national parks. I ask if CBT is more likely to promote higher levels of local participation in tourism, local management authority, and greater support for local livelihoods as compared to conventional, growth-oriented tourism in the private sector and in strictly-protected areas. To better understand the mechanisms through which tourism is believed to improve livelihoods and contribute to conservation (Nyaupane & Poudel, 2001; Agrawal & Redford, 2006; Salafsky & Wollenberg, 2000; Spenceley & Meyer, 2012), I further ask if having tourism as a livelihood activity is associated with lesser reliance on strategies associated with long-term forest land-use change, including commercial agriculture and ranching (FAO & UNEP, 2020; CONAP & WCS, 2015). While some argue CBT broadly is unlikely to be cost-effective in terms of jobs and revenue generated and conservation maintained (Kiss, 2004), other authors point to the importance of context to illustrate the mechanisms by which CBT succeeds or fails to support local objectives (Wunder, 2000; Nilsson et al., 2016). Emic perspectives that recognize and consider local community goals for forest biodiversity and forest resources more closely align with empowerment and agency-based approaches to sustainable tourism development and are particularly urgent (Sen, 1990; Scheyvens, 1999; Stronza et al., 2019). Therefore, I adopt two broad dissertation objectives for my research in the Maya Biosphere Reserve (MBR), Guatemala:

1. To develop a more detailed contextualization of the tourism management conditions that facilitate local community empowerment, especially social and economic empowerment, both within communities practicing CBT and between communities with and without CBT initiatives
2. To understand if local management conditions, especially community-based vs. strictly protected area and conventional tourism are associated with greater and/or more equitably distributed livelihood opportunities in tourism and if these reduce reliance on livelihood activities associated with long-term land-use change such as commercial agriculture and ranching

#### Methods: Case study and process tracing

To reach these objectives, I conducted a case study (Yin, 2014) in the Maya Biosphere Reserve (MBR) in northern Guatemala, partnering with local NGOs Rainforest Alliance and the Association of Forest Communities of the Petén (ACOFOP), and collecting data with a research assistant from the Universidad de San Carlos-Petén. The MBR is more than two million hectares (~5 million acres), representing nearly a fifth of the land area of Guatemala (CONAP & WCS, 2018), and a large portion of one of the largest continuous stretches of forest in Mesoamerica (Blackman, 2015). It is home to thousands of species of flora and fauna and is known among tourists as the heart of the Mundo Maya for its archaeological sites, including the UNESCO world heritage site of Tikal (CONAP, 2015; INGUAT, 2018).

In what can be likened to a policy experiment that has gone on for more than two decades, the MBR is divided into strictly protected areas, a buffer zone, and multiple use zones including concessions where local forest communities were granted rights to manage the forest for activities such as timber and non-timber forest product harvesting and ecotourism. On the

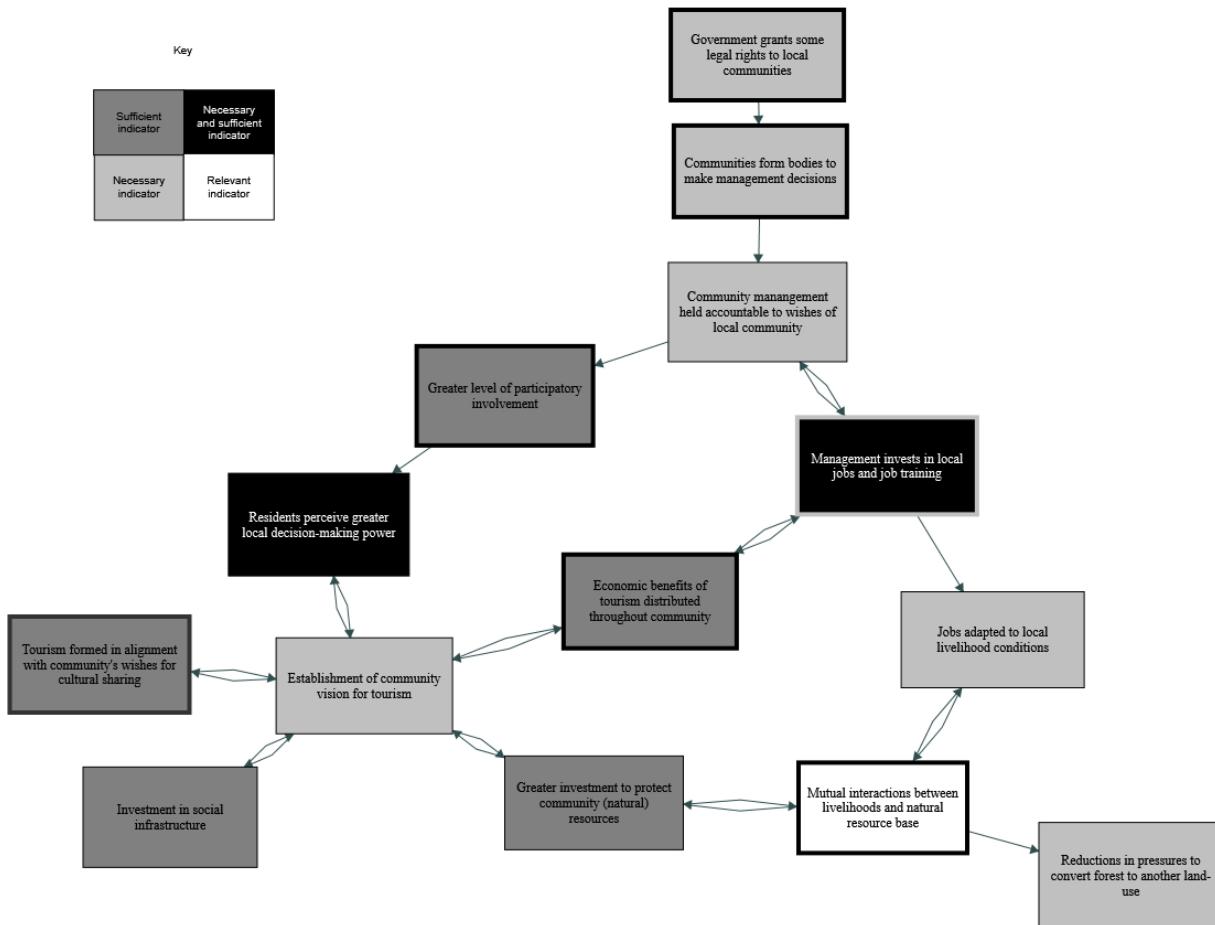
whole, these community concessions have better preserved forest cover than the national parks (Hodgdon et al., 2013). While most of the eastern half of the reserve (comprised of three national parks, two protected area biotypes, nine community concessions, and two industrial concessions) have been relatively well-preserved, deforestation rates in the buffer zone and the Laguna del Tigre National Park and protected biotype are alarming, with 37% and 29% of remaining forest cover lost, respectively, in 2017 (CONAP & WCS, 2018).

The conversion of forested land to agriculture and ranching drives most of the forest loss in the MBR, with cattle-ranching associated with narcotrafficking an especially significant driver (Quezada et al., 2014; Devine et al., 2020). The mosaic of governance structures in the MBR which include different tourism models, allow for a comparison of the conditions under which tourism works as a sustainable development strategy to promote local empowerment and sustainable livelihoods. While significant work has studied macro-level forest conservation in the Maya Biosphere Reserve or contributed to theory by critiquing the weaponization of tourism and conservation policies that dispossess local communities (Blackman, 2015; Bray et al., 2008; Devine, 2014, 2017; Ybarra, 2018) there is less practice-oriented work recognizing the role of tourism in local community livelihoods and explicitly comparing what tourism management practices lead to empowerment. Hence, I compare the impacts of tourism on local livelihoods in a community concession that manages tourism (Carmelita) with the impacts on residents in geographically defined gateway communities to the national parks of Tikal and Yaxhá which represent unique tourism models. Outside of Tikal, I focus on the gateway town of Socotzal, and I study the gateway town of Yaxhá outside of Yaxhá National Park. Carmelita, Socotzal, and Yaxhá have comparably small population sizes, and each are the last human settlement before a national park (National Parks Mirador, Tikal, and Yaxhá, respectively).

As a national park and UNESCO world heritage site with hundreds of thousands of tourists every year, Tikal National Park represents a more-traditional federally managed protected area with minimal surrounding community influence on management and growth-oriented, mass tourism development in terms of number of tourism arrivals (CONAP & WCS, 2018). While Yaxhá National Park is similarly managed as a national park funded through tourism (CONAP, 2015), twelve surrounding communities, their development boards, and local associations of tourism service providers have begun to develop initiatives more explicitly directed at a community-based tourism in the park (Romero 2013).

I compare the protected-area model of tourism in Tikal and the intermediate protected area with some community involvement at Yaxhá with the resident concession of Carmelita with established community-managed tourism. In Carmelita, tourism primarily consists of an organized hike through the concession to Mirador National Park (Romero Obando, 2011). Using process tracing, a method of elucidating causal inference within a case study (Wauters & Beach, 2018), I trace the mechanism through which tourism is envisioned to lead to community empowerment, livelihood enhancement and conservation by looking at how management affects local empowerment in tourism decision-making, local participation in tourism, the impacts of participation in tourism on livelihood activities, and if, in turn, livelihoods in tourism are

associated with reduced reliance on commercial agriculture and ranching, land-use strategies associated with deforestation pressures in the MBR (Figure 1).



**Figure 1. Process tracing mechanism for community-based tourism.** The diagram illustrates how local community management authority leads to community empowerment and livelihood objectives. Black boxes are necessary and sufficient indicators, dark grey are sufficient indicators, light grey are necessary indicators, and white are relevant indicators.

Process tracing uses a series of tests for the presence of necessary and sufficient indicators that the hypothesized causal mechanism explains the observed phenomena (Wauters & Beach, 2018). In the proposed causal mechanism for why community-based tourism better leads to local empowerment, livelihood, and conservation objectives than conventional tourism, a series of necessary indicators of community political empowerment (the designation of local management authority, internal community political structures; Scheyvens, 1999; Mendoza-

Ramos & Prideaux, 2014; Strezelecka et al. 2017ab) lead to a series of necessary and sufficient indicators of political, economic, psychological, social, and environmental empowerment (participatory involvement, distribution of economic benefits, social cohesion in the form of a community vision and collective investments in tourism and community infrastructure that respect the community culture and conserve natural resources; Scheyvens, 1999; Mendoza-Ramos & Prideaux, 2014; Boley et al., 2017). This mechanism also reflects that the job creation and training opportunities created by community management reflect the mutual interaction between livelihood activities and the natural resource base (Scoones, 1998; DFID, 1999), ideally in ways that reduce pressure to convert forested land to other land-uses to meet conservation goals (Salafsky & Wollenberg, 2000). In my dissertation, I test this causal mechanism by evaluating and comparing the empowerment and livelihood outcomes of participation in tourism in gateway towns to national parks with and without community-based tourism enterprises.

## Outline of chapters

### *Chapter 1*

In Chapter 1 on intra-community social and economic empowerment, I ask:

- Within community-based tourism, what social barriers exist for participation in a tourism cooperative?
- To what extent does tourism contribute to the livelihoods of community members?

Chapter 1 is a case study addressing intra-community heterogeneity, local perceptions of benefits and challenges for tourism development, perceived barriers to participate in tourism, and tourism livelihood contributions within Carmelita, the community with the longest history of community-based tourism development in the MBR (Gómez & Méndez, 2007). I used

participant observation and 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 recording registered members of the Cooperative, registered tourism service providers, and wages paid to tourism service providers. I analyzed the transcribed interview data using a grounded theory approach (Charmaz, 2008) to identify the major benefits and challenges that residents' associate with tourism development, and using the tourism record data and livelihood activity data, analyzed patterns of participation in tourism and tourism wages across the community. I further used this livelihood data to develop questions for the livelihood surveys in Chapter 2.

## *Chapter 2*

Chapter 2 expands upon the singular focus on within-community participation in CBT, by comparing the extent to which community-based tourism and participation in tourism in the private sector within gateway towns to national parks facilitate local community livelihoods. The chapter addresses:

- To what extent does tourism contribute to the livelihoods of local residents in community-based sites vs gateway towns to national parks?
  - What proportion of individuals and households participate in tourism in geographically defined communities with varying degrees of local authority over tourism management, in what jobs do community members participate, and how much income do they earn?



- How compatible is participation in tourism with residents' other livelihood activities?
- Does community-based tourism contribute to conservation goals by lessening household's reliance on livelihood activities associated with long-term forested land change, namely commercial agriculture, and ranching (Quezada et al. 2014; Devine et al. 2020)?

To understand what participation opportunities exist in tourism, the proportion of households participating, and the relative financial contributions of tourism as compared to other income-generating strategies, I conducted livelihood surveys derived from the livelihood systems analysis (DFID, 1999) and the CIFOR-PEN study (2008) with specific questions about tourism participation, in what months household members participate in each job to help account for the seasonality of employment, and open-ended questions about balancing livelihood activities. I particularly examined if tradeoffs existed between tourism participation and household earning income in commercial agriculture or ranching.

### *Chapter 3*

Finally, Chapter 3 expands upon the focus on comparative livelihood opportunities in tourism in gateway towns with and without community-based tourism enterprises to compare the extent to which tourism in each town contributes to local empowerment and why community management authority explains these different outcomes. I ask:

- How do opportunities for tourism empowerment differ among community-based sites and gateway towns to national parks?
  - What duties and responsibilities do residents working in tourism hold?

- What decision-making authority do community members have in tourism management?
- How is tourism contributing to social, economic, psychological, political and environmental empowerment or disempowerment in each community (Scheyvens 1999; Mendoza Ramos & Prideaux 2018)?

To contextualize and compare the nature of tourism positions in each community, I conducted semi-structured interviews with community leaders and individuals working in diverse tourism positions and focus groups with residents in each community. Further, I reviewed management documents for community-tourism enterprises and national park management plans. Using both these data sources and responses to open-ended questions about community empowerment on the livelihood surveys used in Chapter 2, I used grounded coding to derive local concepts of empowerment and compared communities' levels of social, political, environmental, psychological, and economic agency using the amended tourism empowerment framework with an environmental dimension (Scheyvens, 1999; Mendoza Ramos & Prideaux, 2018).

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# Chapter 1: How effective is community-based tourism at equitably promoting local livelihood opportunities? A case study of residents' perspectives in the Maya Biosphere Reserve, Guatemala

## Abstract

Often promoted to enhance rural livelihoods, community-based tourism (CBT) may fail to account for the local livelihood context or contribute to equitable participation opportunities. Through a mixed-methods case study on a CBT initiative in Carmelita, Guatemala, this research applied the Sustainable Livelihoods Framework (SLF) to understand if and how tourism contributes to local livelihoods and residents' perceived barriers for participation. The authors reviewed tourism employment records, conducted semi-structured interviews with 43 Carmelita residents in 22 households and interviewed 10 key informants. CBT supported a high, albeit gendered, distribution of tourism jobs across the community, and tourism was a fundamental, but not stand-alone, livelihood activity. Residents perceived few barriers to participate in tourism, but increasing formalization changed how they worked with tourists. Understanding tourism development within the local livelihood context and how CBT initiatives prioritize and distribute direct and indirect tourism job opportunities is critical to meaningfully generate equitable income-earning opportunities within communities.

*Keywords:* community-based tourism, livelihoods, mixed-methods, sustainable development, Sustainable Livelihoods Framework

## Introduction

Community-based tourism (CBT) aims to ensure more localized social and economic benefits than the tourism industry more broadly (Scheyvens, 1999; Tolkach & King, 2015). CBT initiatives center around a geographically defined community, a “delimited place where people live and meet their daily needs together while trying to pursue their collective or individual agendas” (Zielinski et al., 2020, p. 725). They are defined as small- to medium-scale tourism enterprises with a central leadership structure that are owned and/or managed by community members and generate collective benefits (Zielinski et al., 2020; Goodwin & Santilli, 2009). However, CBT’s benefits are less consistently evident in practice, particularly in Indigenous and socio-economically marginalized communities with histories of land dispossession and colonization (Das & Chatterjee, 2015; Coria & Calfucura, 2012; Devine, 2014; Díaz Rocca & Zielinski, 2022). Given the global interest and investment in tourism as a development strategy (The World Bank, 2021), practitioners require better understandings of how CBT generates equitable local participation opportunities to enhance local livelihoods. This paper addresses which social barriers exist to participation in tourism in rural communities and how tourism integrates with and contributes to local livelihoods for women and men.

### *Linkages between CBT and livelihood improvement*

This work builds upon Nyaupane and Poudel’s (2011) conceptual model illustrating the linkages between tourism development, livelihood improvement and biodiversity conservation through the Sustainable Livelihoods Framework (SLF) to address the inclusion of tourism in community members livelihoods (Figure 2). In three cases of CBT around Chitwan National Park in Nepal, Nyaupane and Poudel (2011) observe linkages where tourism development

contributes to local job opportunities, markets, and improvements in quality of life. Later research has found evidence of these linkages in CBT (Das & Chatterjee, 2015; Stone & Nyaupane, 2018; Phelan et al., 2020), but has also pointed to weaknesses, such as when limited long-term financial viability and elite capture preclude livelihood improvements from CBT for all but the wealthiest members of a community (Taylor, 2017; Tran & Walter, 2014; Spenceley & Meyer, 2012). Scholars point to the problem of assumed homogeneity that neglects social divisions when implementing and assessing projects like CBT within geographic ‘communities’ (Tolkach & King, 2015; Stone, 2015; Broesch et al., 2020), ignoring the differential distribution of livelihood improvements from tourism (Das & Chatterjee, 2015). Moreover, livelihood indicators and host community members’ perspectives are frequently underreported in community development projects (Stronza et al., 2019; Hajjar et al., 2016, Hadinejad et al., 2019).

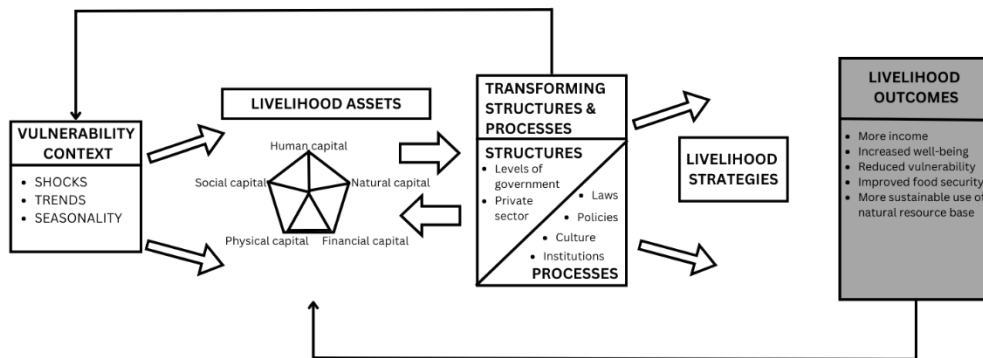
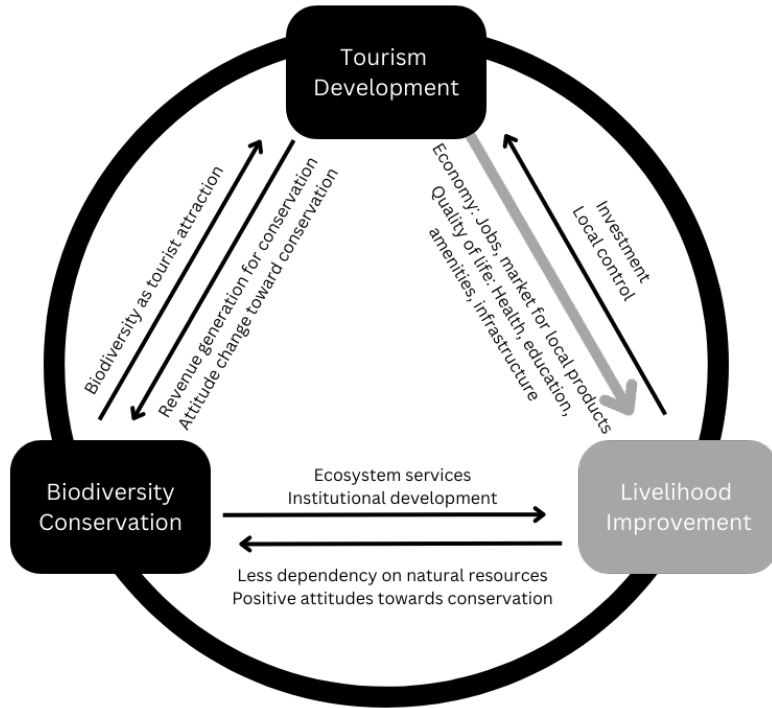


Figure 2. Linkages between tourism, livelihood improvement, and biodiversity conservation (above) adapted from Nyaupane and Poudel (2011), and Sustainable Livelihoods Framework (SLF; below) adapted from DFID (1999). Both diagrams address livelihood outcomes, whereas the SLF illustrates the context in which including tourism within the livelihood portfolio leads to livelihood improvement, the highlighted linkage.

*CBT and the livelihoods approach*



To address the aforementioned shortcomings, this research analyzed livelihood systems through the use of the Sustainable Livelihoods Framework (SLF) to better incorporate local individuals' perspectives and address the strength of the linkages between CBT and livelihood outcomes. The SLF is a five-component framework focusing on the exogenous context in which individuals and households make livelihood decisions, their livelihood assets, the activities they choose to make a living, the outcomes of these decisions, and the institutions and policies that govern the above (Scoones, 1998; DFID, 1999). The framework makes visible how external factors, such as protected area legislation in the Galápagos or water scarcity in Oaxaca, Mexico, drive interest in pursuing tourism as an alternative livelihood (Burbano & Meredith, 2021; Reyes-Santiago et al., 2022). Central to this framework is understanding households' livelihood portfolios, the actual suite of activities household members pursue to make a living (DFID, 1999; Scoones, 1998; Su et al., 2019). Previous research has applied the SLF to assess household livelihood assets and community capitals, how these affect the likelihood a household will participate in tourism, and how they affect linkages between tourism and conservation. (Ma et al., 2021; Huang et al., 2022; Stone & Nyaupane, 2018). However, historically, the livelihood portfolio and diversity of livelihood activities pursued in rural communities and the tradeoffs between them have been understudied, especially within a tourism context, even though livelihood diversification is one of the main strategies rural households use to reach their livelihood goals (DFID, 1999; Scoones 1998; Laeis & Lemke, 2016; Burbano & Meredith, 2021; Su et al., 2016; Huang et al., 2022).

The SLF adds nuance to presuppositions that tourism will necessarily improve households' livelihood outcomes (Su et al., 2016). It highlights tradeoffs in livelihood activities such as in the Chobe Enclave Conservation Trust CBT project in Botswana, where residents

described tourism's contributions to local employment but also expressed increased concern of livestock predation associated with wildlife conservation for tourism (Stone, 2015). Researchers can better understand tourism development through the SLF that recognizes the importance of livelihood diversification, tradeoffs between livelihood activities, and how the differential barriers community members may face adopting tourism into their livelihood portfolios affect the equitable distribution of employment opportunities (Scoones, 1998; Laeis & Lemke, 2016).

Tradeoffs in livelihood activities and the investments required to pursue them illustrate why CBT enhances some community members livelihoods and not others. Participation in subsistence economic activities may present time and labor demands that preclude participation in tourism, and educational barriers may limit some of the poorest members of the community's involvement (Goodwin & Santilli, 2009; Saufi et al., 2013; van der Duim et al., 2011). Even when CBT theoretically prioritizes jobs for community members, tourism initiatives may still value high levels of formal education attainment, training, and novel competencies catering to foreign tourists' demands, causing community members to feel they have insufficient skills to manage or even participate in tourism initiatives (van der Duim et al., 2011; Díaz Rocca & Zielinski, 2022). Whereas previous research has distinguished between passive, active and non-participation in CBT, reflecting individuals' abilities to earn income in tourism but not affect management decisions in passive participation (Park et al., 2018), this research adds a distinction between indirect (economically benefiting from tourism without directly interacting with tourists) and direct (working with tourists) participation to better highlight the time-management considerations important to household livelihood strategy decisions (DFID, 1999).

The SLF highlights the community institutions and cultural norms influencing who and how residents incorporate tourism into their livelihood portfolios (DFID, 1999; Ma et al., 2021;

Taylor, 2017). Interpersonal disputes and organizational challenges may hamper the collective action necessary for the formation of CBT initiatives, such as in attempts to form CBT networks in Timor-Leste or tourism entrepreneurs' disinterest in investing in one in Ravna Gora, Croatia (Tolkach & King, 2015; Đurkin & Perić, 2017).

Gender roles merit special attention as a cultural norm that affects the adoption of tourism as a livelihood activity, as they are currently understudied when examining tourism's impacts (Tran & Walter, 2014; Spenceley & Meyer, 2012; LaPan et al., 2021; Ma, 2021). Gender roles may present obstacles or opportunities to participate in tourism depending on context. Women tend to be heavily employed by the tourism sector, but much of this work is in low-paid or informal employment (Hutchings et al., 2020; Manwa, 2008). Flexible working arrangements in tourism allow women to both participate and complete traditional roles like caretaking (Manwa, 2008). Gentry (2007) describes Belizean women's participation in tourism as indicative of the 'housewifization' of labor where women's roles in tourism are viewed as extensions of domestic work like cooking and cleaning. Given that women may face particular sets of livelihood activity tradeoffs associated with caretaking (LaPan et al., 2021), this study particularly examined whether opportunities to participate in CBT differed between men and women.

## Methods

### *Study area*

Latin America has a rich history with tourism-for-development initiatives. Within Guatemala, the Maya Biosphere Reserve (MBR) is known for nature-based and Mayan archaeological heritage tourism, which government leaders have historically promoted for national development (INGUAT, 2018; Presidencia de la República de Guatemala, 2012).

Studying CBT in the region is further relevant given the MBR's history with community-based enterprises. After the declaration of the MBR in the 1990s, local communities campaigned to retain land rights, resulting in the community-managed forest concessions where communities manage large, leased tracts of forest land for sustainable timber and non-timber forest product management and harvesting, and increasingly, for tourism (Hodgdon et al., 2013; Taylor, 2010; Radachowsky et al., 2012). The Food and Agriculture Organization of the United Nations has recognized the MBR's community-forestry concessions successes generating livelihoods, stemming deforestation, and reducing costs to the central government to protect biodiversity, making the MBR an important area to study the mechanics of what does and does not work in community-based enterprises, such as CBT (FAO & UNEP, 2020; Taylor, 2010; Radachowsky et al., 2012; Millner et al., 2020). Moreover, ongoing tensions between proposals for massive tourism development in the Reserve and recognition of local and Indigenous communities' land rights and rights to manage tourism make understanding the role of CBT in supporting local livelihoods especially relevant (Millner et al. 2020; Taylor 2010).

The Carmelita community concession has the longest history of CBT in the MBR (Gómez & Méndez, 2007). The small town is located about 80 km from the tourist center of the Petén in Flores. Originally founded and settled as a natural chewing gum (*chicle*) harvesting camp during the early 20<sup>th</sup> century, Carmelita petitioned for a community concession contract as the Carmelita Community Cooperative in 1997 (Schwartz, 1990; Gómez & Méndez, 2007; Contrato de Concesión Forestal, 1997). The town's population is approximately 400 individuals, with 150 adults registered as cooperative members (Secretaria de Planificación y Programación de la Presidencia, 2018; Cooperativa Carmelita, 2019). Timber harvesting generates the most

revenue for the Carmelita Cooperative, while tourism generates the most employment (Radachowsky et al., 2012; Crasborn Ojeda et al., 2018).

Tourism in Carmelita began informally in the late 1900s as archaeologists sought residents familiar with the forest as guides (Romero Obando, 2011; personal communication with member of the Carmelita Tourism Cooperative July 25, 2019). As the popularity of Mayan archaeological sites grew, community members working in three family groups started organizing touristic hikes from the town through the concession area to Mirador National Park, which borders the concession 65 km to the northeast (Romero Obando, 2011). In 2011, the Plan for Public Use of Mirador National Park declared that tourists along the Carmelita-Mirador hiking route must be accompanied by an accredited local guide, giving the Carmelita community near-exclusive rights to lead tourists (Romero Obando, 2011). This decision remains somewhat contentious both outside and within Carmelita. Tour operators outside of the community decried the limits to access, and long-standing family feuds within Carmelita contributed to tensions over the declaration that the Carmelita Cooperative, as opposed to Carmelita residents operating independently of the cooperative, held the rights to manage tourism (Romero Obando, 2011; Rahder, 2020).

In the community-based enterprise, Carmelita residents who are both members and non-members of the cooperative may enlist as tourism service providers (e.g., guides, cooks, muleteers, and assistants) and work on a rotational basis accompanying tourists along a five-day roundtrip hike from the community to Mirador National Park (Butler 2020, Cooperativa Carmelita, 2020; Romero Obando, 2011).

*Research positionality*

Through collaboration with the NGOs Rainforest Alliance (RA) and the Association of Forest Communities of the Petén (ACOFOP), I traveled to the Petén to complete fieldwork between June and August 2019, with most of the time spent in Carmelita. I made subsequent trips to Carmelita in 2021 and 2022 that informed the discussion in this paper. A former Carmelita community leader from RA helped me (a fluent, but nonnative U.S.-born Spanish speaker) with a culturally appropriate introduction to the community. Given my similarity with the dominant demographic of tourists to Carmelita (white, in their 20s, from the Global North) and the community's familiarity with Guatemalan and international NGO workers and researchers, residents generally accepted me as a cross between a student intern and a long-term tourist. I shared non-identifiable data, results, and recommendations with RA to assist their initiatives to improve CBT in Carmelita, while independently soliciting feedback on CBT from Carmelita participants. Overall, I adopt a pragmatic ontology (Creswell & Creswell, 2018), framing research as a method to address CBT's difficulties meaningfully promoting local participation and livelihoods.

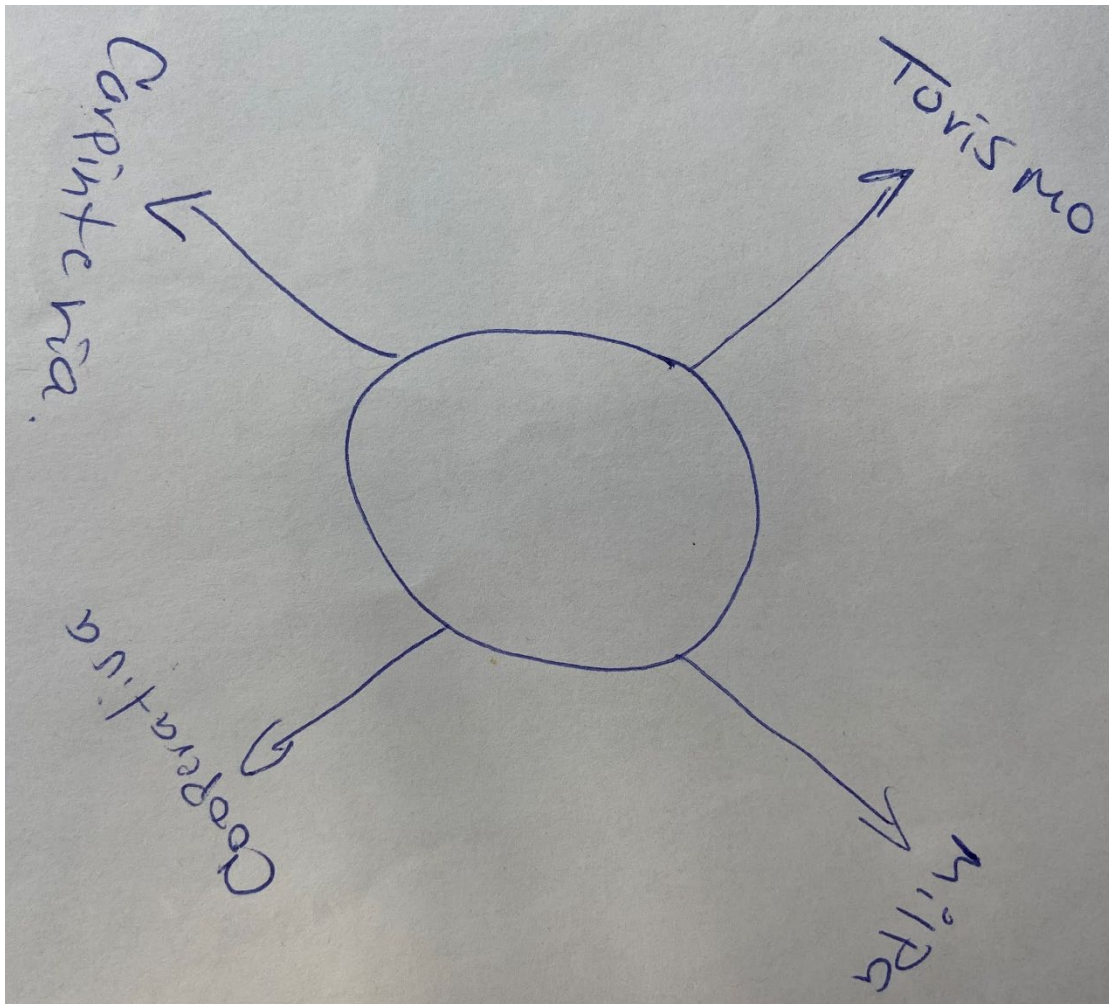
The research employed mixed methods to better understand Carmelita residents' own perspectives on participation in tourism and its contributions to their livelihoods, as well as to triangulate patterns of employment in tourism with records kept by the Carmelita Cooperative. Mixed-methods research is particularly useful to both amplify marginalized community members' voices in development projects and simultaneously generate quantitative indicators that can be compared across projects (Creswell & Plano Clark, 2007; Stronza, et al., 2019). Moreover, mixed-methods case studies have been used to evaluate other community-based projects and tourism initiatives, including in the MBR (Reyes-Santiago et al., 2022;

Radachowsky et al., 2012; Đurkin & Perić, 2017). The University of Minnesota Institutional Review Board approved this study (IRB STUDY00005608).

### *Qualitative data collection and analysis*

Ethnographic qualitative data collection included content analysis, participant observation and semi-structured interviews. In total, I interviewed 53 respondents, including 43 residents of Carmelita (representing 22 households) and 10 key informants associated with local NGOs, local government, and Carmelita tourism management.

Carmelita residents and I constructed livelihood schematic diagrams during interviews to understand involvement in tourism and other livelihood activities. This study focused on household income-earning and subsistence activities, asking an open-ended question prompting participants to diagram the different activities they used to support their household, and follow-up questions about daily wage rates and seasonality. I did not specifically ask about remittances, which can be substantial for Guatemalan households although some evidence suggests they are less important for members of the MBR community concessions (Stoian et al., 2018). Instead, interviews focused on the income-earning activities of household members who lived within Carmelita or worked in the nearby urban center and pooled income with immediate family members in Carmelita.



*Figure 3. Example of participant's livelihood schematic diagram. The diagram shows the household as represented by the circle at the center and the livelihood activities (in this case, carpentry, tourism, a subsistence farm, and income from the Carmelita Cooperative), used to support the household.*

Carmelita Cooperative members and their households were randomly selected using a list of registered cooperative members; I further purposively recruited individuals from non-cooperative member households. I interviewed more than one adult member of households with at least two adults to address gender and age-based heterogeneity in experiences with tourism and livelihood activities (Anderson et al., 2017; Stronza, 2007) and to increase the likelihood of reporting less frequently adopted livelihood activities. To ensure reaching saturation for major themes, we first made estimates of the number of interviews we would need to conduct based on



previously established guidelines and prior research in the MBR (Guest et al., 2006; Hagaman & Wutich, 2017; Stoian et al., 2018). In addition, I used community-engaged methods such as asking participants to recommend additional respondents and member checks (Creswell & Creswell, 2018) with community leaders knowledgeable about tourism and livelihoods in Carmelita regarding preliminary themes towards the end of field data collection. Collaborators from RA and ACOFOP reviewed and made suggestions for the interview questions (Appendix A), originally developed in Spanish, to ensure cultural appropriateness.

All participants gave informed consent to participate in the study and most agreed for the interviews to be audio-recorded. For the four participants who agreed to participate, but preferred not to be recorded, I took detailed notes.

I digitized handwritten field notes, transcribed audio-recordings, and checked transcripts against the recordings. I used multiple rounds of inductive and deductive coding using NVivo 12 Pro software (2019) to interpret major interview themes. I first created nodes for the guiding interview questions and coded responses by the questions to which they responded. We defined major and minor themes based on relevance to the interview questions and extensiveness of participants' responses, consistent with coding and qualitative interpretation guidelines (Yin, 2003; Kruger & Casey, 2017; Saldaña, 2013). To increase the validity of theme interpretation, the first two authors came to a consensus on codebook definitions (Appendix B) which was followed by rereading all the transcripts with the codebook and axial coding, also highlighting counterexamples to the nodes to search for potential limitations in interpretation. Here, a major theme is defined as one mentioned by at least about half of respondents (26 interviews) and a minor one is mentioned by roughly a quarter of respondents or more (more than 13 interviews).

All transcripts and codebook definitions were written in Spanish, the language of the interviews. I translate select excerpts into English here to describe the themes.

### *Quantitative data collection and analysis*

The Carmelita Cooperative shared a list of registered members of the cooperative, enlisted tourism service providers, and payment records for tourism employees. The list of cooperative members was a spreadsheet with personal information for members including name, birthdate, ID number, and the date they enrolled in the cooperative. Payment records were recorded in several digital spreadsheets, broken down by service category and including the service providers' name and annual earnings for 2016-2018, with income earned through midyear 2019. The physical lists of all registered tourism service providers by the service in which they participated (guide, cook, muleteer, mule rental, and equipment rental) were posted on large sheets of paper within the tourism office. I cross-referenced the list of service providers and the cooperative members spreadsheet to determine the cooperative membership status of each service provider.

I conducted chi-square analyses examining direct vs. indirect tourism employment by cooperative membership status and gender to examine the distribution of tourism jobs in Carmelita. To better contextualize tourism's monetary contributions to livelihoods, I compared average earnings in 2018 among service providers by tourism job to the minimum wage. All statistical analyses were performed in RStudio 3.6.0.

## Results

### *Participants*

Key informants represented the National Council of Protected Areas (CONAP), the Guatemalan National Tourism Institute (INGUAT), RA, ACOFOP, and current and former members of the Carmelita Cooperative Board of Directors and Tourism Commission.

Interviewed residents mostly represented households in which at least one household member was a Carmelita Cooperative member, but both member and non-member households shared broadly similar demographic characteristics (Table 1).

*Table 1. Characteristics of Carmelita interview respondents*

|                                                       | <b>Randomly selected cooperative members</b> | <b>All respondents</b> |
|-------------------------------------------------------|----------------------------------------------|------------------------|
| <i>Household variables</i>                            |                                              |                        |
| Number of households                                  | 18                                           | 22                     |
| Percent of households with earnings from tourism      | 88.89%                                       | 86.36%                 |
| Average number of household members                   | 5.58 ± 3.64                                  | 5.67 ± 3.22            |
| <i>Individual respondent variables</i>                |                                              |                        |
| Number of respondents                                 | 19                                           | 43                     |
| Percent of respondents working directly with tourists | 36.84%                                       | 34.88%                 |

|                                                           |               |               |
|-----------------------------------------------------------|---------------|---------------|
| Percent cooperative members                               | 100%          | 79.07%        |
| Percent female                                            | 42.11%        | 44.19%        |
| Mean age (years)                                          | 45.21 ± 18.40 | 46.58 ± 19.69 |
| Percent with completed sixth grade education <sup>b</sup> | 47.37%        | 46.51%        |

*Distribution of tourism jobs*

Overall, there was a high level of participation in tourism among residents, but men and women tended to enroll in different tourism activities. While only about 35% of respondents individually participated in tourism on the hike to Mirador, over 86% of the surveyed households received at least some income from tourism (see Table 1).

The comparatively high levels of participation in tourism among interview respondents mirrored the tourism records kept by the Carmelita Cooperative. While residents may not always actively be participating in the tourism service provider rotation, 125 individuals had at least enrolled to become part of the rotation. Of the enrolled individuals, 59 were female (47%), and 71 (57%) were cooperative members (Figure 4). Women were more likely to exclusively provide indirect services, like laundry services, equipment, and mule rentals, than men ( $X^2_1=45.80$ ,  $p<1.31 \times 10^{-11}$ ), but the type of job in which individuals enrolled was independent of their cooperative membership status ( $X^2_1=0$ ,  $p=1$ ).

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<sup>b</sup> In the Guatemalan education system, sixth grade marks the completion of primary education (SITEAL, 2019). It is also the minimum grade level required for community guide authorization.

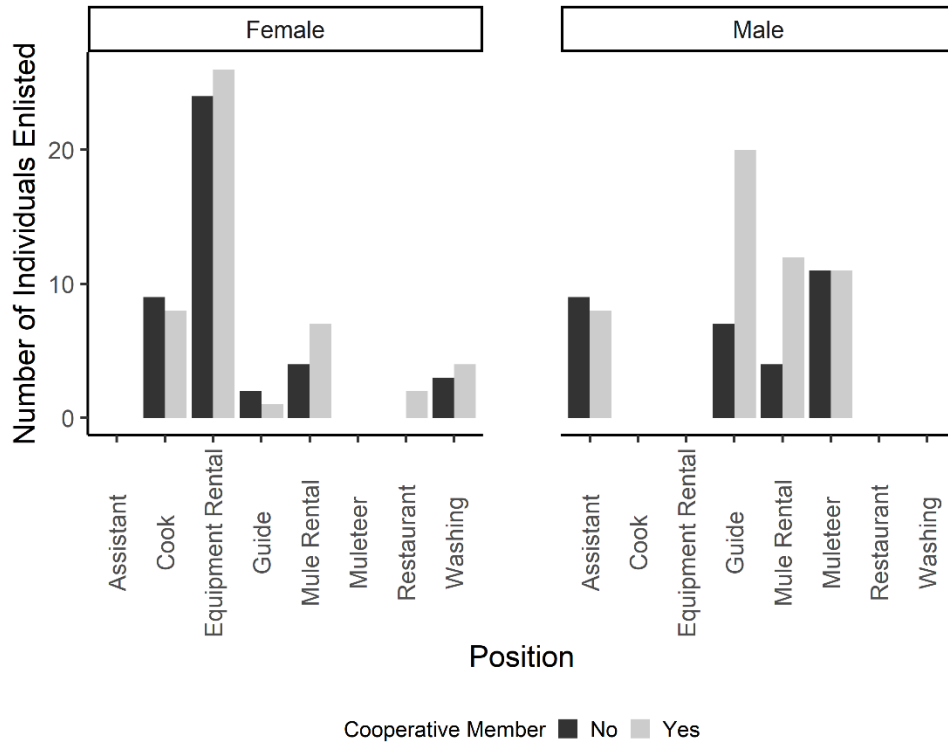


Figure 4. Enrollment in tourism service provider positions by gender and cooperative-membership status.

#### Livelihood contributions from tourism

Based on the high proportion of interviewed households with tourism earnings and participants’ perceptions of the benefits of tourism, tourism was a critical source of employment at the community level, but was part of households’ diversified livelihood portfolios, rather than a stand-alone livelihood activity. Respondents from 19 of the 22 households mentioned receiving at least some household income from tourism. Income from tourism was the most frequently mentioned livelihood activity, with subsistence farming (*milpa*), employment in archaeological projects, and employment by the Cooperative for the annual timber harvest planning being the next most mentioned livelihood activities (see Figure 5). Interviewed households reported 28 different income-earning activities among them, with most households (73%) participating in at

least three different cash-earning activities, in addition to subsistence activities like tending a *milpa* for household consumption or raising animals, especially chickens. Only two of the interviewed households described relying on tourism as their sole source of cash income.

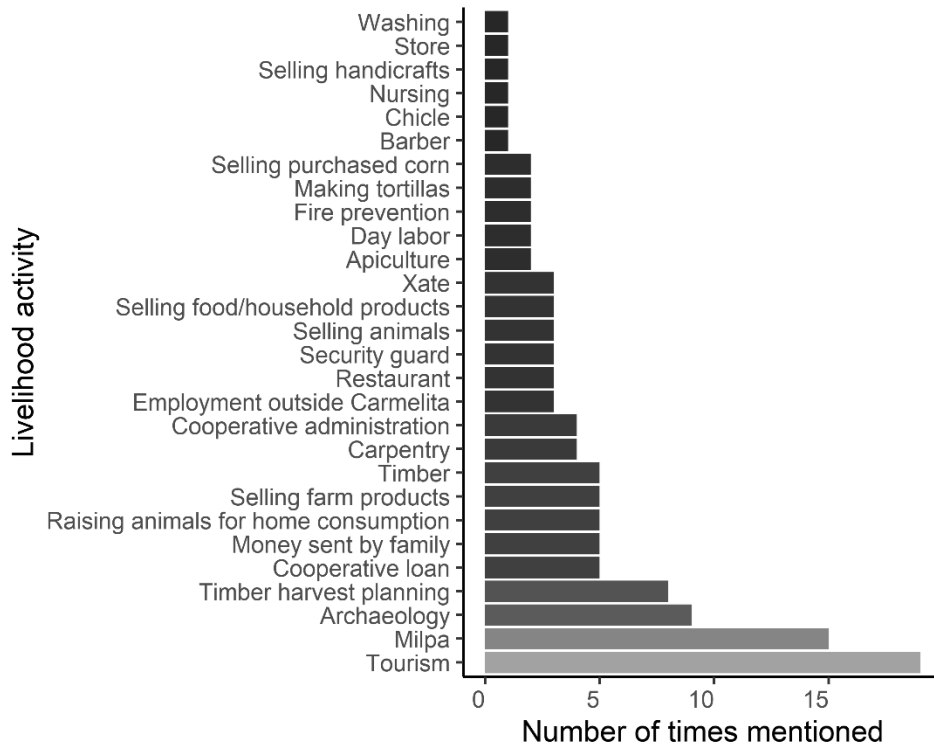


Figure 5. Frequency of use of each livelihood activity among interviewed households (n=22).

The high diversity of livelihood strategies at both the household level and across the community reflected the high proportions of sporadic and seasonal jobs (Table 2). Only some jobs with timber, cooperative administration, carpentry, and apiculture offered full-time, year-long employment in Carmelita, but there were fewer positions in these activities. Tourism was a relatively attractive job opportunity given the potential for high daily wages in the positions that accompanied tourists on tours. Further, tourism was a sporadic but year-long activity (see Table 2), complementary to other economic activities.

The high proportion of interviewed households reporting tourism income was consistent with major themes from the interview data suggesting that among the greatest changes that tourism had produced in the community was job generation. One resident described, “almost the entire community benefits from work in tourism.” Another resident suggested that the growth of tourism caused some residents to shift from other livelihood activities. He described, “Well, before I tell you there was *xate* [a decorative palm leaf utilized in the floral industry]. One would go into the forest for a couple months, collecting *xate*... There are people here who do not collect *xate* anymore. They just provide services to tourists.” Carmelita residents perceived tourism as a comparatively new source of employment that was in some ways more attractive than jobs like harvesting *xate* that required even more time camping in the forest with payment dependent on the amount collected as opposed to guaranteed pay for services provided to tourists.

**Table 2. Comparison of wage-earning activities in Carmelita.** *Sporadic employment is that for which individuals are hired for less than a week at a time, regular employment is that in which individuals are hired for more than a week, but less than a full year. Salaried employment is year-long. Seasonal livelihood activities do not occur in all 12 months. <sup>a</sup>Daily wage rates calculated using an estimation of 22 working days per month or 260 days per year.*

| <b>Livelihood activity</b> | <b>Daily wage rate</b> | <b>Salaried, regular, or sporadic employment</b> | <b>Seasonal vs. year-round</b>         |
|----------------------------|------------------------|--------------------------------------------------|----------------------------------------|
| Tourism                    | 50-200 Q               | sporadic                                         | year-round (with high and low seasons) |
| Equipment rental           | 50 Q (for 5 sets)      |                                                  |                                        |
| Mule rental                | 100 Q (for 2 mules)    |                                                  |                                        |

|                                              |                                                 |                        |                                                           |
|----------------------------------------------|-------------------------------------------------|------------------------|-----------------------------------------------------------|
| Assistant/cook/muleteer                      | 125 Q                                           |                        |                                                           |
| Guide                                        | 200 Q                                           |                        |                                                           |
| Archaeology                                  | 50-130 Q                                        | regular,<br>sporadic   | seasonal                                                  |
| Timber harvest planning <sup>a</sup>         | 80-182 Q                                        | regular                | seasonal                                                  |
| Money sent by family                         | variable                                        | sporadic               | year-round                                                |
| Cooperative loan                             | variable, usually<br>around 300-500 Q           | sporadic               | year-round                                                |
| Timber <sup>a</sup>                          | 45-136 Q                                        | salaried or<br>regular | year-round                                                |
| Selling farm products                        | variable, by unit<br>(0.5 -4 Q/pound)           | sporadic               | seasonal                                                  |
| Cooperative administration <sup>a</sup>      | 136-364 Q                                       | salaried               | year-round                                                |
| Carpentry                                    | 68-182 Q                                        | salaried               | year-round                                                |
| Restaurant <sup>a</sup>                      | by amount sold (on<br>average, 81-132<br>Q/day) | sporadic               | year-round (with high<br>and low seasons from<br>tourism) |
| Employment outside<br>Carmelita <sup>a</sup> | 173-182 Q                                       | salaried               | year-round                                                |
| Xate                                         | variable, by unit<br>(1-1.40 Q/20<br>palms)     | sporadic               | year-round                                                |



|                                           |                                                        |          |                                           |
|-------------------------------------------|--------------------------------------------------------|----------|-------------------------------------------|
|                                           | ~100 Q/day for selecting/packing                       |          |                                           |
| Selling animals                           | variable, by unit<br>(50-125 Q/chicken,<br>~800 Q/pig) | sporadic | year-round                                |
| Security guard <sup>a</sup>               | 45-136 Q                                               | regular  | year-round                                |
| Selling food/household products           | variable, by amount<br>sold (75-100<br>Q/day)          | sporadic | year-round                                |
| Apiculture                                | 118 Q                                                  | salaried | year-round                                |
| Fire prevention                           | 136 Q                                                  | regular  | seasonal (but can be up to 9 months/year) |
| Selling purchased corn                    | variable, by unit                                      | sporadic | year-round                                |
| Making tortillas                          | variable, by unit                                      | sporadic | year-round                                |
| Day labor                                 | 60-70 Q                                                | sporadic | year-round                                |
| Other income-earning activities described | variable, by unit                                      | sporadic | year-round                                |

The wage data echoed these interview patterns of tourism being a significant, yet insufficient source of income to support a livelihood on its own. Wages for all three of the four direct service providing positions (guide, assistant, cook, muleteer) as well as for individuals able to rent two mules, surpassed the daily minimum wage rate of 90.16 Q (11.68 USD; Ministerio de Trabajo, 2018; See Figure 6). Indeed, the guide's wage rate of 200 Q/day (25.90 USD) exceeded

all the other daily wage rates described by participants in Carmelita excluding full-time positions in Cooperative administration. However, the average monthly wages of Carmelita tourism services providers who worked in 2018 still fell considerably below the minimum monthly wage rate (2,742.37 Q or 355 USD ; Ministerio de Trabajo, 2018; See Figure 6) because of the sporadic nature of the work that depended on the number of tours in a given month. Between 2016 and 2018, only on one occasion did an individual have annual earnings from one tourism position commensurate with earning at least the minimum monthly wage yearlong by working as a guide. This wage data, however, did not include tips, which participants described as potentially being very substantial, but also highly variable. Overall, tourism contributed substantially to livelihoods in Carmelita at the community level by generating comparatively high income-earning opportunities across the community but remained one of many diverse livelihood activities that residents used to support themselves throughout the year.

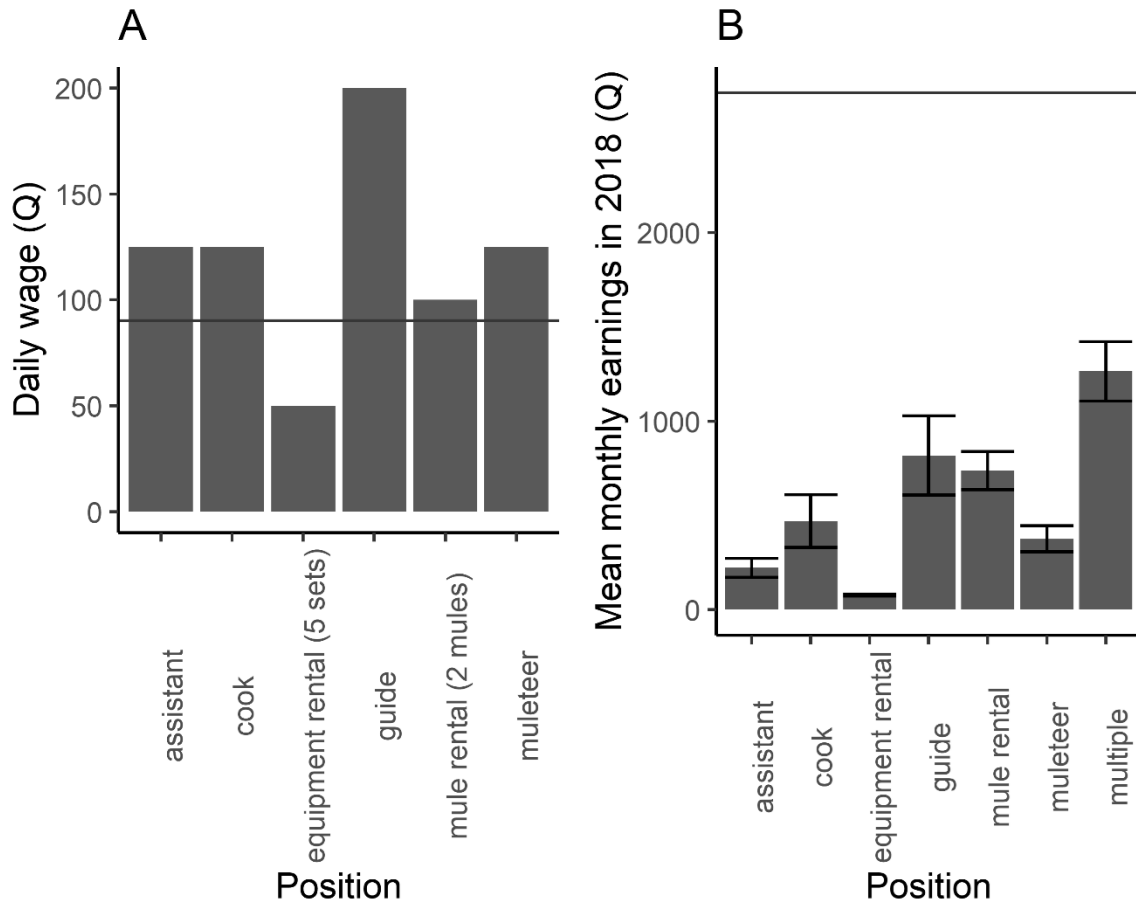


Figure 6. Daily wage rates in tourism service positions (Panel A) and mean monthly earnings in each position in 2018 (Panel B). Horizontal lines denote the minimum daily and monthly wage rates, respectively.

### Perceptions of barriers for tourism involvement

Residents' descriptions of barriers for tourism participation explained observed patterns in tourism job distribution. Overall, Carmelita residents found enlisting in the tourism service provider rotation as being open to the community. One participant described, "For everyone it is equal the opportunity." Other residents specified that individuals could become involved whether or not they were cooperative members, so long as they were "from here, the community, native." However, the jobs in which individuals enrolled and whether they actively participated on hikes

were mediated by conditional barriers reflecting characteristics of both the tourism job and the individual.

Residents addressed issues impacting in which tourism activities they enrolled. The most frequently reported barrier was the increasing level of formalization of tourism in Carmelita that challenged earlier flexibility in participation. Most participants described new requirements for involvement in tourism as compared to less strict organization in the past. One resident described, “Well before, we participated guiding tourists. But in those years that I participated as a tourism guide it was that they did not use documents. They did not ask, for example, for the license.” The comparatively new requirement that guides complete training, an exam, and paperwork for authorization caused some Carmelita residents, particularly men who guided tourists before the Carmelita Cooperative consolidated tourism organization, to alter their participation in tourism to positions that had less entry requirements, but paid less, than serving as a guide. One guide and an NGO representative also suggested that the written part of the accreditation exam may form a barrier for applicants with limited formal education and literacy. Relatedly, one minor theme participants noted for tourism involvement was completing the relevant training requirements, such as in food preparation for cooks and customer service for assistants.

Livelihood activity tradeoffs additionally affected the jobs in which residents enrolled or whether they accepted to go on the hike with tourists. Some residents perceived a lack of time to complete the 5-day trek as a barrier to participating in the direct tourism positions. Decisions to work in tourism or other wage-jobs hinged on seasonality, with residents with guide authorization, but consistent employment in other Cooperative sectors, only participating during the peak tourism season to meet an increased tourist demand. On the other hand, in the majority

of households where residents did not have year-long employment, attending to subsistence strategies, such as the *milpa* or caring for their animals, precluded some individuals' participation in tourism. Participants saw tradeoffs in tourism involvement in terms of potential lost investment in existing livelihood activities and resources, such as failing to take care of their *milpas* if they departed for a tour. One man described not wanting to go on a tour for fear that, "some mules or wild animals will destroy it [the *milpa*] and then I cannot harvest anything."

While gender did not emerge as a major or minor perceived barrier for tourism involvement, competing household obligations may explain women's greater participation in exclusively indirect tourism services. Several women described caring for children or family and other household tasks as reasons they did not participate in tourism trainings or in the tourism rotations. One woman expressed, "It is household work that always traps us, no? We have obligations with our husbands, no? Because we have to take care of them when they come from work." This woman's experience of household obligations limiting opportunities to travel outside the home mirrors the distribution patterns of labor in tourism (Figure 4) where women were more likely to provide exclusively lower-paid indirect services (washing, mule/equipment rentals) that did not accompany tourists on the hike, than men. While gender did not emerge as a major barrier as to *whether* women earned income in tourism, gender roles affected *how* women participated and the benefits they received.

Respondents also perceived fewer opportunities for the involvement of elderly individuals in tourism, particularly given the physical requirements needed to complete the hike. Participants described the physical effort required, the long hours, muddy trails, and mosquitoes as some of the most difficult parts of working in tourism. One respondent thus described those who participate in tourism as "mostly young people."

Moreover, respondents described challenges achieving a common vision for tourism against a backdrop of perceived insufficient job opportunities in the community. While tourism did occur year-round, it exhibited high and low seasons, that, when coupled with the high supply of tourism service providers in the community compared to demand, led some residents to perceive that the economic benefit was not substantial. One respondent described:

Well, tourism is by rotation, no? We can say that only once your turn comes up do you go back to work. Because that is sometimes once a month, that your turn occurs. Imagine that. That is not a great benefit. Well, because imagine you had an expense to pay. While it is a help, but not 100%.

The high seasonality of jobs opportunities in the community, high needs for local employment, and an intention that tourism benefit the entire community, contributed to the Cooperative's decision that tourism service providers work by rotation. While this decision contributed to high levels of involvement in tourism, individual income gains from the activity could be quite marginal. For example, participants in equipment rental described earning quantities of about 200 Q (25.90 USD) as often as once a month, but sometimes with less frequency. Whereas equipment rentals had the highest number of enrollees, it had the least active participation in tourism and the lowest tourism wages.

Within this context, one of the principal challenges for CBT were participants' concerns of exclusion or unequal treatment by the tourism cooperative, particularly in participation in the tourism rotation or training. One woman described, "They [the cooperative] give work to people who do not need work, who do not have kids or wives. And the people who need [work] to feed their kids, they do not look for them." Although the tourism logistics coordinator offered opportunities to depart on a tour on a rotational basis to active enlisted service providers, some

residents still expressed concern with favoritism in employment opportunities, or, in this case, a lack of preferential employment options for people who most needed income. Residents disagreed on how to distribute what they perceived as relatively scarce job opportunities. Although enrolling as a tourism service provider was not viewed as difficult, registration did not necessarily entail consistent employment opportunities, nor that residents trusted that the rotation policy would be fairly applied.

Participants described achieving union and a common, community vision for tourism as the largest challenge for CBT. During a general assembly, cooperative members elect fellow members to the Carmelita Cooperative board of directors that oversees the concession's economic activities. When cooperative members voted that this directing board should replace the formerly independent tourism commission in the community and manage tourism along with the Carmelita Cooperative's other activities (principally timber and non-timber forest product harvesting), some residents strongly dissented and began tourism operations independent of the Cooperative. While some respondents saw the Cooperative as best positioned to distribute tourism benefits across the community, particularly given that most families in Carmelita have at least one registered Cooperative member, others suspected that either or both tourism enterprises would selectively benefit family members. One respondent described:

When there is a divided community, it is very difficult. Because there are some who are involved for their own benefit-involved for their own interests. There are others who are looking out for the benefit of the community in general. Therefore, it makes it hard for us to come to an agreement.

Respondents saw achieving unity as the greatest obstacle to CBT in Carmelita particularly given suspicions about how benefits would be distributed. Like in the woman's comment that the

Cooperative should distribute work opportunities according to need as opposed to equal opportunities to get involved in tourism, an equity vs. equality argument, tourism service providers also stayed anxiously aware of the passing of the tourism rotation. Disruptions to the rotation, such as when tourists requested a particular guide or the last-minute coordination of a tour resulted in selecting the most readily available service providers, could result in suspicion. Overall, individuals viewed the opportunity to become involved in tourism as open to all community members. However, individuals faced different challenges and competing obligations in accessing different tourism positions within a context of community debate about the best way to distribute tourism participation opportunities.

## Discussion

These findings illustrate the usefulness of the SLF to highlight if and how CBT contributes to livelihood improvement (Nyaupane & Poudel, 2011), how community objectives influence the equity of tourism participation and benefit distribution, and how greater tourist arrivals have potential to support increased household livelihood benefits.

While the *diversifying* role of tourism in livelihood portfolios is acknowledged in rural development and agritourism literature (Barbieri et al., 2019; Luo et al., 2022), conservation movements in Global South still pitch tourism as an *alternative* livelihood activity (Stronza, 2007; Zhang et al., 2020; Nyaupane & Poudel, 2011). The results of this study that tourism add to a growing awareness that participation in tourism becomes part of integrated livelihood portfolios, rather than a stand-alone livelihood activity (Zapata et al., 2011; Burgos & Merten, 2017; Stronza, 2007; Lepper & Schroen Goebel, 2019).



Thus, livelihood analysis is an important tool to illustrate the barriers and tradeoffs households face integrating tourism within their livelihood portfolios to help alleviate poverty in cash-limited communities. In this study, competing time demands and the formalization of the tourism enterprise and skills required for certain jobs had implications for the individual and household level livelihood benefits accrued through tourism. Mtapuri and Giampiccoli (2016) argue that increasing CBT formalization is associated with higher levels of empowerment, and while the informal sector can provide employment, job opportunities in this sector on their own are an unlikely means for poverty alleviation as wages fall below levels necessary to make meaningful changes in livelihoods. The tourism rotation in Carmelita under the current tourism market demand and the high levels of participation particularly in the lower-paid, less time-intensive, less-formal service positions provide some level of protection against income shocks but do not provide enough regularity and reliability to move people out of poverty. Indeed, consistent with findings elsewhere in Central America and globally, residents voiced that a major benefit of CBT was collective, providing jobs for the *community* as opposed to high levels of *individual* income gains from tourism (LaPan et al., 2016; Goodwin & Santilli, 2009; Zapata et al., 2011).

However, rather than dismiss CBT due to its limitations in providing training and access to higher-wage, high-skilled and managerial roles for all community members, understanding how tourism is integrated into existing livelihood strategies is essential for establishing clear CBT objectives. In the case of Carmelita, the sporadic nature of tourism employment may reflect both a cause and consequence of the pattern of households using a diversity of income-earning activities throughout the year. Income gains in tourism may be re-invested in existing livelihood activities or in diversifying livelihood portfolios leading to greater resilience (Burgos & Mertens,

2017; Stronza, 2007). One advantage of CBT, therefore, may be its compatibility with other livelihood needs and family life, given that families are often the units of production (Zapata et al., 2011).

Future research should more closely address the factors households consider when deciding between livelihood activity alternatives, particularly as livelihood diversification has long been recognized as one strategy to promote livelihood sustainability (Scoones, 1998). The COVID-19 pandemic has especially highlighted the vulnerabilities of marginalized tourism host-communities, emphasizing the need for diverse economic practices (Cave & Dredge, 2020), and future work understanding how to improve household livelihood resilience. In the context of Carmelita, the Cooperative has an opportunity to further lessen poverty in the community by prioritizing marketing tours outside of the timber harvest planning and archeological project seasons to create more job opportunities in seasons of low employment in the community.

Within this context of integrated household livelihoods and communal tourism benefits, management decisions and social norms influence the distribution of tourism participation opportunities for different groups, with implications for whether tourism alleviates poverty. Similar to other studies of tourism development in rural communities in Latin America, tourism tended to be perceived as a job for young adults (Burgos & Mertens, 2017; Stronza, 2007; Mendoza-Ramos & Prideaux, 2014), challenging the extent to which it addresses the issue of old age poverty in the Global South (Gorman & Heslop, 2002). The gendered differentiation of tourism positions in Carmelita was also consistent with previous findings from other CBT case studies and likely attributable to patterns of labor division (Burgos & Mertens, 2017; Gentry, 2007; Tran & Walter, 2014). Given that women in Carmelita, and elsewhere globally, tend to contribute the bulk of household labor (van der Duim et al., 2011), opportunities to get involved

in tourism on a low-time commitment basis may contribute to greater participation by women without displacing subsistence livelihood activities (van der Duim et al., 2011). Understanding that there may be tradeoffs between numbers of participants in CBT projects and individuals' levels of involvement and wages in tourism, CBT planners should be especially cognizant of how social norms and physical conditions in the community affect groups' engagement with tourists.

Communal management navigates disputes about how to distribute tourism jobs within a context of high levels of enrollment in tourism positions compared to the current tourist demand. Inter-community heterogeneity and historic and ongoing conflicts among families are especially relevant in Carmelita and CBT more broadly, as social context in the community influences business decisions with the result that management reflects motives beyond just a profit-maximization logic (Millner et al., 2020; Taylor, 2010; LaPan et al., 2016). Studies suggest that pursuing private sector-partnerships and transitioning from less to more formal labor contracts may enhance the earning potentials from CBT, but the decisions to formalize and pursue partnerships or not ultimately rest with CBT management (Stone, 2015; Mtapuri & Giampiccoli, 2016).

Moreover, this case study suggests that while greater formalization may be associated with more job training opportunities and perceived to lead to a higher quality of tourism service, the transition from informal to more formal employment is not without challenges. Indeed, this study and others suggest that CBT may have an advantage in providing training opportunities as compared to conventional tourism as it explicitly emphasizes empowering community members (Mendoza-Ramos & Prideaux, 2018; Scheyvens, 1999). Still, participants' responses highlight that ensuring and communicating equitable access to training opportunities remains a challenge.

In Carmelita, participants were concerned with not being invited to training opportunities or their turn to participate in the tourism rotation, even when they saw the opportunity to enlist in the tourism rotation as open to the community. Improved and faster communication of upcoming tours with service providers and compensated participation in tourism training may enhance the equity of tourism participation opportunities, as they would ease households' ability to navigate tradeoffs in tourism participation with time for subsistence livelihood activities or the opportunity to earn a daily wage.

While emphasizing options for everyone in the community to participate in tourism or high individual household-level income contributions from tourism do not represent inherent tradeoffs, they may suggest differentially prioritized objectives for CBT development. However, moderate increases in tourism arrivals would likely increase tourism's support for local livelihoods and abate some of the tensions about job distribution among households. Tourist arrivals to Mirador National Park are low, under 3,000 tourists annually, compared to the nearly 300,000 annual tourists visiting the better-known Tikal National Park (CONAP & WCS, 2018), making understanding how the local livelihood contributions from CBT can scale-up with increasing tourism especially relevant. This research focused on livelihood benefits solely within Carmelita, whereas future work should consider what possibilities the Carmelita CBT model distributing tourism benefits across the community through high enrollment in a job rotation has for delivering livelihood benefits at a larger scale in other national park-adjacent communities.

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## Chapter 2: Comparative efficacy of conventional and community-based tourism management at contributing to local livelihoods

### Abstract

Community-based tourism (CBT) aims to enhance local sustainable livelihood opportunities. Nonetheless, most tourism development still occurs through the private sector and CBT shows mixed results in practice, necessitating better understandings of how tourism supports local livelihoods. Through a mixed methods comparative case study in Guatemala's Maya Biosphere Reserve, we conducted 134 household livelihood surveys across three gateway towns to national parks with varying degrees of local authority over tourism to understand if community management better supported local livelihood opportunities and reduced reliance on activities associated with deforestation in the region. The town with the most well-developed CBT enterprise supported the greatest distribution of tourism jobs by developing tourism activities that better fit within households' livelihood portfolios, reducing entry barriers, and consolidating local control over job opportunities. Tourism did not replace agricultural activities, and the small scale of these suggests that smallholder livelihood choices are exaggerated as drivers of land-use change.

Key words: Community-based tourism, community-management, conservation, livelihoods, Maya Biosphere Reserve

### Introduction

Researchers predict that community-management of natural resources through community-based forest enterprises generates both local economic benefits and supports

conservation (Salafsky & Wollenberg, 2000; Newmark & Hugh, 2000; Macqueen, 2008; Nyaupane & Poudel, 2011; Peredo et al., 2015; Butler & Current, 2022; Holland et al., 2022). For example, projects like sustainable community-managed timber harvesting, non-timber forest product gathering, and nature-based tourism enterprises integrate forest uses with local households' capabilities, assets, and activities pursued to make a living, their livelihoods (Scoones, 1998; Butler & Current, 2022; Nyaupane & Poudel, 2011). In turn, these projects both create incentives for conserving the forest and improve management practices by turning over control of forest enterprises to communities with the highest dependency on and most intimate contextual knowledge of the forest (Salafsky & Wollenberg, 2000; Sierra-Huelsz et al., 2020; RRI, 2021).

Some studies suggest community-based enterprises contribute to greater social organization, poverty relief, job generation, higher income, and greater assets among participating households (Zada et al., 2019; Macqueen, 2008; Stoian et al., 2018). Yet, persistent challenges for these enterprises include maintaining long-term financial viability and substantial local economic benefits, addressing local community capacity building, equitably distributing enterprise benefits, and handling tradeoffs between enterprise development, livelihood activities, and conservation goals (Newmark & Hugh, 2000; Terbog, 2002; Macqueen, 2013; Frey et al., 2019; Brandt & Buckley, 2018; Zielinski et al., 2020; Coria & Calfucura, 2012; Yanes et al., 2019; McShane et al., 2011).

Moreover, livelihood indicators remain comparatively under-evaluated in community forest enterprises (Hajjar et al., 2016). While the literature addresses the contribution of forest resources to poverty relief, the myriad of ways in which it does so and its contribution to non-monetary benefits tend to be understudied (Meilby et al., 2014; Cheng et al., 2019; Angelsen et



al., 2014). Particularly, less work has addressed local livelihood impacts of tourism in comparison with other available economic activities and conservation approaches (Stronza et al., 2019). Hence, this study examines tourism as one type of community forest enterprise (Angelsen et al., 2014) and how it is situated within a broader livelihood context.

In part, limitations to local management authority and different livelihood contexts explain the disparate effects of community-based enterprises (Zielinski et al., 2020; Agrawal & Redford, 2006; Coria & Calfucura, 2012; Yanes et al., 2019; Stronza, 2007). Governments may extend forest management rights to communities in name only, without communities receiving the benefits of forest management in practice (Newmark & Hugh, 2000; MacQueen, 2008, 2013; Anderson et al., 2015). Indeed, governments are less likely to support community management of the more financially valuable resources, like timber and tourism, as opposed to non-timber forest products with a lower market value (Anderson et al, 2015).

Nature-based tourism and community agency over it merit special attention, as the nature-based tourism sector is growing three times faster than the rest of the tourism industry and is expected to recover most quickly from the pandemic compared to other types of tourism (FAO, 2018; Paredes et al., 2023). Historically, neoliberal economic growth models predicted that tourism industry growth in the private sector would benefit local economies and alleviate poverty (Schilcher, 2007; Fletcher, 2012). However, scholars have increasingly criticized the neoliberal growth models for exacerbating inequalities rather than contributing to local community well-being and called for greater local control over tourism resources (Scheyvens, 1999; Devine, 2017; Schilcher, 2007; Coria & Calfucura, 2012; Scheyvens & Hughs, 2019; Higgins-Desbiolles, 2020). One alternative, community-based tourism (CBT), is defined as small to medium scale enterprises, owned and/or managed by community members that generate

collective benefits (Zielinski et al., 2020). Still, private sector tourism enterprises and investment, and “business as usual” policies play a dominant role in the industry, potentially weakening local authority over, and participation in, tourism (World Bank, 2021; Holland et al., 2022; Yanes et al., 2019; Gössling et al., 2020). Hence, this paper examines how different levels of community-management authority over tourism influence how well tourism integrates with, and contributes to, local livelihoods.

Comparative case studies suggest ambiguities and tradeoffs in livelihood outcomes from participation in tourism in the private sector or in community-based enterprises. For example, in Fiji, Scheyvens and Russell (2012) found that the private mass tourism sector tended to provide higher wages and better working conditions than employment on smaller-scale Indigenous-owned resorts, but employees of these larger foreign-owned resorts had to migrate further from their lands and families for work. In a Belize case study, women employees of the mass tourism sector tended to earn more than women employed in the alternative tourism sector; women who managed alternative tourism enterprises had the highest earnings (Gentry, 2007). Huang et al. (2022) found that households participating in a government-supported local tourism project tended to have higher incomes than non-participating households but were simultaneously more vulnerable to income-shocks because of seasonal variation in tourism arrivals. These cases illustrate the complexities of understanding the mechanisms through which community-based tourism does or does not contribute to local livelihoods. Further, Harrison and Schipani (2007) highlight challenges finding comparable data examining local impacts of private sector and community-based tourism development, complicating understandings of how livelihood outcomes differ under various models of tourism management.

In this paper, I conduct livelihood systems analysis (Scoones, 1998) to illuminate how community management influences local livelihood benefits accrued through tourism. By examining the factors households consider in adopting various livelihood strategies and the broader livelihood context, including the extent to which local communities have authority over resource management decisions, livelihood systems analysis takes a more holistic view of the livelihood outcomes of tourism development (Scoones, 1998; DFID, 1999). Livelihood analysis includes, but extends beyond income (Scoones, 1998; DFID, 1999), providing a comprehensive framework to compare how outcomes of community-based tourism vs. opportunities to participate in tourism in the private sector differ. Previous research in tourism has applied livelihood systems analysis to identify factors involved in choosing to adopt tourism as a livelihood strategy and how this impacts livelihood outcomes (Su et al., 2019; Reyes-Santiago et al., 2022). This case adds to the literature examining tradeoffs in tourism participation and its impacts on livelihoods under different levels of community tourism management. Specifically, I ask: How does tourism management (CBT vs. participation in tourism in private sector enterprises outside national parks) impact the livelihoods of residents of gateway towns to national parks?

- i) What proportion of individuals and households participate in tourism in geographically-defined communities with varying degrees of local authority over tourism management, in what jobs do community members participate, and how much income do they earn?
- ii) How compatible is participation in tourism with residents' other livelihood activities?
- iii) Does community-based tourism contribute to conservation goals by lessening household's reliance on livelihood activities associated with long-term forested land

change, namely commercial agriculture and ranching (Quezada et al. 2014; Devine et al. 2020) ?

## Methods

To answer the aforementioned research questions, I conducted a mixed-methods comparative case study (Yin, 2003; Creswell & Plano Clark, 2007), with researcher administered in-person household surveys (Appendix C) in three gateway towns to national parks with different levels of community authority over tourism management. Quantitative data included short-answer survey responses about income and livelihood activities, while qualitative data derived from open-ended survey questions about interest in tourism and balancing livelihood activities. I supplemented the survey questionnaire qualitative data with semi-structured key informant and tourism service provider interviews in each community (Appendices D and E).

### *Site selection*

The Maya Biosphere Reserve (MBR) in northern Guatemala forms a unique opportunity to compare the livelihood impacts of tourism management strategies within a similar geographic area. The reserve is divided into three broad land-use types: strictly protected natural parks, a multiple-use zone, and a buffer zone designed to protect the first two areas from an encroaching agricultural front (Hodgdon et al., 2013; Figure 7). The multiple use zone includes two industrial timber concessions and is also home to the community-managed forest concessions, organizations comprised of local community groups that manage tracts of forest for sustainable timber and nontimber forest production harvesting and tourism. These concessions organized and campaigned for land rights after the declaration of the MBR as a protected area in 1990 (Hodgdon et al., 2013; Millner et al., 2020). The three most visited national parks in the area,

Tikal, Yaxhá-Nakúm-Naranjo, and Mirador-Rio Azul National Parks represent varying degrees of collaboration with park-adjacent local communities and local rights over tourism resources (please see Table 3).

*Table 3. Comparison of study sites*

| <b>National Park</b> | <b>Year established</b> | <b>Number of annual visitors to park</b> | <b>Government institution managing park</b> | <b>Period of park closure during pandemic</b> | <b>Nearest gateway town</b> | <b>Main mechanism for community participation in tourism</b>                                                    | <b>Number of households in nearest gateway town</b> |
|----------------------|-------------------------|------------------------------------------|---------------------------------------------|-----------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Mirador-Río Azul     | 1990                    | 2,500                                    | National Council of Protected Areas         | March-December, 2020                          | Carmelita                   | Community-based cooperative leading tourists on guided hikes through community concession area to national park | 120                                                 |

|                             |      |         |                                                                                       |                         |          |                                                                                                                                                          |     |
|-----------------------------|------|---------|---------------------------------------------------------------------------------------|-------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Yaxhá-<br>Nakúm-<br>Naranjo | 2003 | 27,000  | National Council<br>of Protected<br>Areas and<br>Ministry of<br>Culture and<br>Sports | March-<br>October, 2020 | Yaxhá    | Umbrella<br>association of<br>seven local<br>tourism service<br>provider<br>organizations;<br>self-employment<br>in family<br>businesses outside<br>park | 20  |
| Tikal                       | 1955 | 300,000 | Ministry of<br>Culture and<br>Sports                                                  | March-<br>October, 2020 | Socotzal | Employment in<br>private enterprises<br>or self-<br>employment as<br>guide (within or                                                                    | 153 |

|                                                                                                                                                                                                       |  |  |  |  |  |                                 |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|---------------------------------|--|
|                                                                                                                                                                                                       |  |  |  |  |  | outside a local<br>association) |  |
| <p><i>Data sources: (UNESCO, 2022; Ministerio de Cultura y Deportes, 2003; CONAP &amp; WCS, 2018; Decreto Número 55-2003; Romero, Obando, 2011; Bolaños, 2020; Hernández, 2020; CONAP, 2020).</i></p> |  |  |  |  |  |                                 |  |

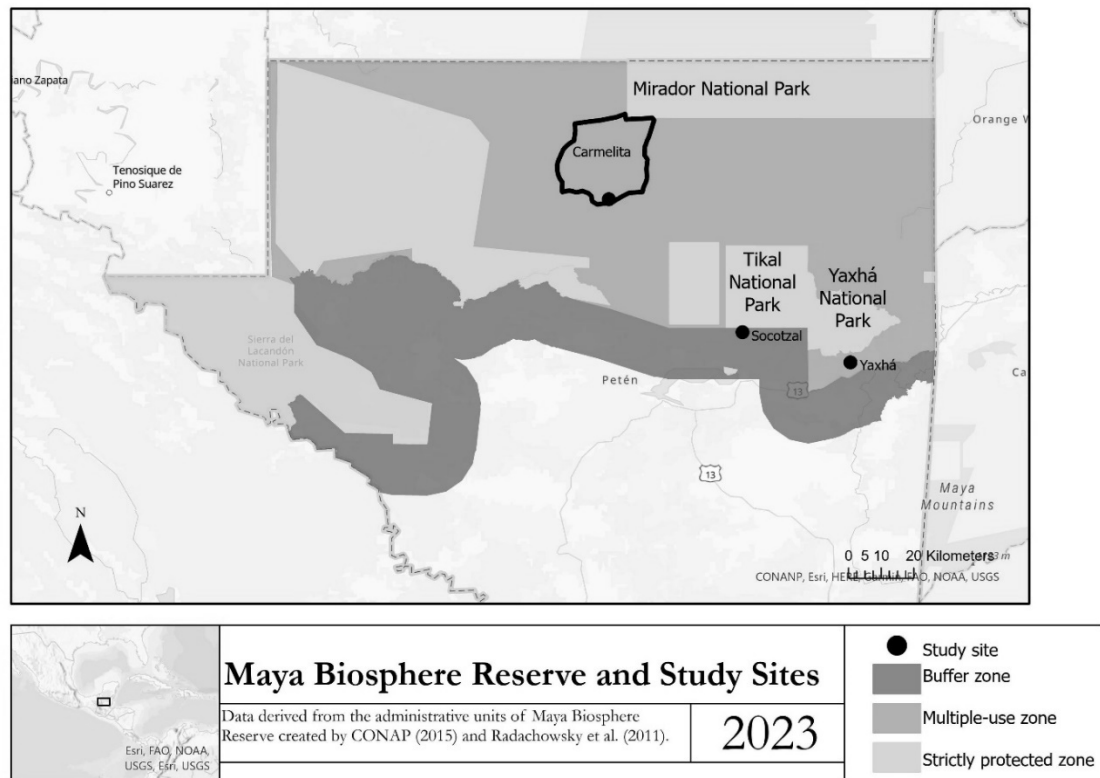


As the most visited and oldest national park in the reserve, without a community-based tourism enterprise in the nearest gateway town (Socotzal), Tikal most closely resembles conventional, strictly-protected area, and growth-oriented tourism practices. During regular park hours, tourists can enter the park with or without a guide (Ministerio de Cultura y Deportes, 2013). Tourists can opt to contract tourism services from private operators, or a local association of guides, Ah Cacao, that has members from the small towns enroute to the park and an office just outside the park entrance (personal communication, April 11, 2022).

On the other hand, the communities of Yaxhá and Carmelita, outside of Yaxhá Nakúm Naranjo and Mirador national parks, respectively, both participate in CBT enterprises. Due to land conflict from unclear boundary designations between the buffer zones and more strictly protected multiple use zones in the MBR that resulted in the loss of local livelihood options, like hunting and fishing (personal communication with former park administrator, January 17, 2022) Yaxhá National Park management agreed that the park should generate economic alternatives for these communities, such as ecotourism and employment as park guards (Decreto Número 55-2003). Community groups organized small ecotourism services in the area starting in the 1990s, and in 2018 a second-tier community organization called the Association for the Sustainable Development of the Yaxhá Territory (ASODESTY) signed an agreement with the park where service providers from its member organizations could offer services to tourists within the park visitors' center (Romero, 2013; personal communication, January 17, 2022). ASODESTY has seven member associations representing various tourism services: guides, boat operators, artisans, transportation, convenience items and artisanal snack sales, and a restaurant. Residents from the 12 towns nearest the park can apply to and join these organizations, with entry requirements set by each of the associations (Romero, 2013).

Bordering the most remote national park of the three, Mirador, the Carmelita community has the longest history of CBT development within the MBR. Tourists can reach the park overland or via helicopter, with the most popular land-based route an approximately five-day roundtrip hike through the Carmelita Concession in the multiple-use zone of the MBR. In part due to concerns for visitor safety along the forest hiking route, the 2011 Plan for Public Use of the park stated that hikers should be accompanied by an accredited community guide from Carmelita (Romero Obando, 2011). The Carmelita Cooperative that manages the concession oversees tourism as a community-based project where residents of Carmelita enlist in a rotation of service providers to accompany tourists along the hike from the community to Mirador.

The similar touristic appeal of the three parks, with tourists coming to engage in nature-based and Mayan archaeological heritage tourism, make the MBR an important case study for understanding the different implications of these tourism management strategies and varying degrees of community-level authority over tourism development on the livelihood impacts of tourism. Moreover, the similar periods of park closure during the pandemic (Table 3), allow comparisons of participation in tourism across the three communities in a similar context of livelihood stress.



*Figure 7. Map of study sites in the Maya Biosphere Reserve*

We focused on the gateway towns of Socotzal, Yaxhá, and Carmelita (Figure 7). All three towns originated as natural chewing gum (*chicle*) and decorative palm (*xate*) harvesting camps in the early twentieth century, although only Carmelita has remained steadily populated from that time (Millner et al., 2020; Swartz, 1990). Yaxhá and Socotzal have both had more recent migration, particularly during the 1970s in Yaxhá, when the Petén Promotion and Development Organization (FYDEP) granted land titles to individuals who cleared the forest for farming (personal communication December 8, 2021; March 10, 2022). Both Yaxhá and Socotzal are located at the boundaries of the MBR’s buffer, multiple-use, and strictly protected areas. On the other hand, Carmelita holds a community concession contract granting the Carmelita

Cooperative forest management rights and recognizing residents' rights to continue living within the multiple-use zone (Primer Testimonio de la Escritura Pública Número 10, 2019).

### *Livelihood questionnaire development*

To generate consistent, comparable data on tourism participation and income across the communities, I developed a household livelihood questionnaire in Spanish using the Center for International Forestry Research (CIFOR) Poverty-Environment Network (PEN) household survey as a base to identify livelihood activities and the income earned from cash-based sources (CIFOR, 2008; Appendix 3). Unlike the PEN study, this research sought to identify all livelihood activities household pursued, but only quantify income earned from wage-based activities, excluding labor costs of subsistence activities. I added additional questions about participation in tourism and the seasonality of livelihood activities to meet research goals to better understand the relationships between tourism and livelihood activities.

Recall data raises concerns for reliability and honesty of reported income, although, in this case, it is also the best way to learn about livelihood activities that do not have a formal record, such as selling home-raised chickens to one's neighbors. Similar methods to generate rural household income estimates have also been used previously in Guatemala (Prado Córdova et al., 2013). The research team tried to mitigate concern about self-reported income in several ways. First, using a specific time-period and memorable events aid in recall collection (Krishna, 2010). We conducted livelihood interviews between September 2021 and May 2022 and asked households about livelihood activities in the 12 months preceding the interview. Further, the primary author spent several months living in and building rapport within each community, to develop trust in the responsible use of income data. Similar estimates for daily wage rates for

providing services and selling similar items among surveyed households helped corroborate estimates and identify potential outliers.

#### *Livelihood questionnaire pre-testing and administration*

Between October and December 2020, I first piloted the questionnaire in Spanish with ten respondents and conducted two think-alouds over video-call to simulate the in-person delivery of the final questionnaire. Afterwards, collaborators from the local NGO Rainforest Alliance and Association of Forest Communities of the Petén (ACOFOP) offices, who work with communities of Socotzal, Carmelita, and Yaxhá reviewed the questionnaire script and additional co-administered tourism semi-structured interview questions for tourism service providers for cultural appropriateness. In September 2021, I piloted the questionnaire with 15 households in the MBR community of Uaxactún, a similarly sized community as our study sites with some community involvement in tourism. As a result of this pilot, I simplified some questions regarding cultivation seasonality to make responding less time-consuming for participants. I also converted some close-ended and scale-based questions into open-ended questions that were later qualitatively coded because the Likert-scale type questions were less familiar to respondents and participants provided details in their responses beyond the close-ended categories.

All questionnaires were conducted in-person, most by myself, a fluent, but non-native Spanish speaker and a few by a research assistant studying tourism management at a local university. To make the questionnaires more accessible to respondents with limited literacy and to be able to ask follow-up questions for clarification, questions were delivered orally as structured interviews. With respondent permission, we audio-recorded the interviews, with only a

few respondents declining recording. The University of Minnesota IRB approved this study (STUDY00013118).

### *Household selection*

I used the definition of household provided in the CIFOR-PEN questionnaire as a group of individuals living under the same roof and pooling resources (labor and income). For this study, I focused on households that physically resided in the community for at least 6 months of the year. I used the community development board (COCODE) records of the number of households in each community and the sample size calculation with the finite population correction to calculate the target household sample size in each community with a 95% confidence interval and a 10% margin of error. Thus, in Carmelita, with 120 households, we conducted 54 interviews. In Socotzal, with 153 households, we conducted 60 interviews. Records from the auxiliary mayor indicated 31 households in Yaxhá, however these records counted multigenerational homes as multiple households whereas our definition counted these homes as the same household. In total, only 20 households lived in Yaxhá at least 6 months of the year, so I conducted a census of these households rather than random sampling as in Socotzal and Carmelita.

To select a random sample of households in Socotzal and Carmelita, I used aerial footage of the communities and the application ArcGIS to generate 60-yard<sup>2</sup> squares on the map (Appendix F). I randomly selected these squares and dropped numbered points on squares that fell within the boundaries of the residential areas of the communities. Once in the field, I used ArcGIS Fieldmaps to locate these points and selected the nearest household within 30 paces to interview. If the structure near the point was an abandoned home or a building other than a home

(i.e., a school), I dropped it and moved onto the next point. To ensure a house was abandoned and not just unoccupied at the time we checked for household members on at least three different dates at varying times of day or confirmed with the neighbors that no one lived there. In Carmelita, we could not interview two randomly selected households because no one was home, and in Socotzal, three randomly selected households declined to participate. We replaced these households with the next households from the randomly generated points. To achieve a more balanced representation of gender in the responses, particularly because Guatemalan households tend to have a highly gendered household distribution of labor (LaPan et al., 2021), I flipped a coin to decide to ask whether the male (*jefe*) or female (*jefa*) head-of household was available. However, in several cases multiple adults from the household were present at the time of interview and contributed to the responses, or the male or female randomly selected heads of household referred us to their spouses to respond to the survey because of greater availability or greater knowledge about tourism in the community. Thus, the ratio of male to female livelihood survey respondents is close to, but not exactly one.

### *Quantitative data analysis*

I performed several comparison tests, based on the research question and number of groups. A Fisher's exact test compared whether there was an association between types of tourism positions individuals held and their community. Fisher's exact test is similar to a chi-square but useful when the expected value of any cells in the contingency table are less than five, as was in the case comparing the tourism positions (Kim, 2017). Chi-square analyses compared the proportions of households across the three communities that earned income in tourism in the past 12 months as well as the association between earning income in tourism and engaging in

commercial agriculture. Too few households owned cattle to be able to compare associations between participation in tourism and cattle ranching. As income data was not normally distributed, I used a square-root transformation of calculated income estimates for an ANOVA comparing mean total annual household income across the three communities, and a Kruskal-Wallis test to compare median amounts of tourism income for participating households in the three communities. All statistical analyses were conducted in RStudio (version 4.1.0).

### *Qualitative data analysis*

To identify perceived barriers preventing households from tourism involvement and factors important to household decision making in balancing tourism with other livelihood activities, I used open-ended survey questions about how easy or difficult residents perceived tourism involvement, perceived barriers for tourism involvement, and how households balanced livelihood activities. I first coded the audio recordings as to what questions portions of the audio addressed and selectively transcribed open-ended responses to the above questions. Using grounded theory coding (Charmaz, 2008), I identified themes in barriers to tourism involvement and factors important to individuals for deciding whether and how to incorporate tourism into household livelihood activities (Appendices G and H). Following guidelines in Saldaña (2013), I sorted responses into higher more over-arching themes and used axial coding to identify relationships between them. I coded all open-ended survey responses and compared most frequently mentioned barriers to tourism involvement across responses in the three communities using NVivo (release 1.7.1). As job schedules and seasonality emerged as an important factor in how households balanced livelihood activities, I further used the survey data to identify the most



common livelihood activities in each community and responses from key informant interviews to create livelihood activity calendars.

## Results

### *Questionnaire respondents and their households*

In total, we administered livelihood questionnaires with 134 heads of household, distributed across the three communities based on the number of households in each town. Respondents across the three communities shared broadly similar demographic characteristics, with the exception that a larger proportion of participants from Carmelita were born within the Petén, reflecting the slightly older history of the community (see Table 4).

*Table 4. Demographic characteristics describing household composition and surveyed heads of household*

|                                                                 | <b>Carmelita</b> | <b>Yaxhá</b> | <b>Socotzal</b> |
|-----------------------------------------------------------------|------------------|--------------|-----------------|
| Number of household livelihood surveys                          | 54               | 20           | 60              |
| Percent of female respondents                                   | 48.1%            | 50.0%        | 45.0%           |
| Mean age (years)                                                | 44.5 ± 16.5*     | 50.0 ± 18.0  | 42.7 ± 13.6     |
| Mean number of household members                                | 4.39 ± 2.46      | 4.35 ± 2.66  | 4.77 ± 2.20     |
| Mean number of children (<18 yrs.) in household                 | 1.87 ± 1.74      | 1.85 ± 2.06  | 2.17 ± 1.68     |
| Percent of respondents with completed primary education         | 39.6%*           | 40.0%        | 43.3%           |
| Percent of respondents born within the department               | 81.5%            | 30.0%        | 53.3%           |
| Mean number of cash-earning livelihood activities per household | 5.65 ± 2.84      | 4.00 ± 2.20  | 4.65 ± 2.68     |

\*n=53

*Tourism participation, jobs, and income*

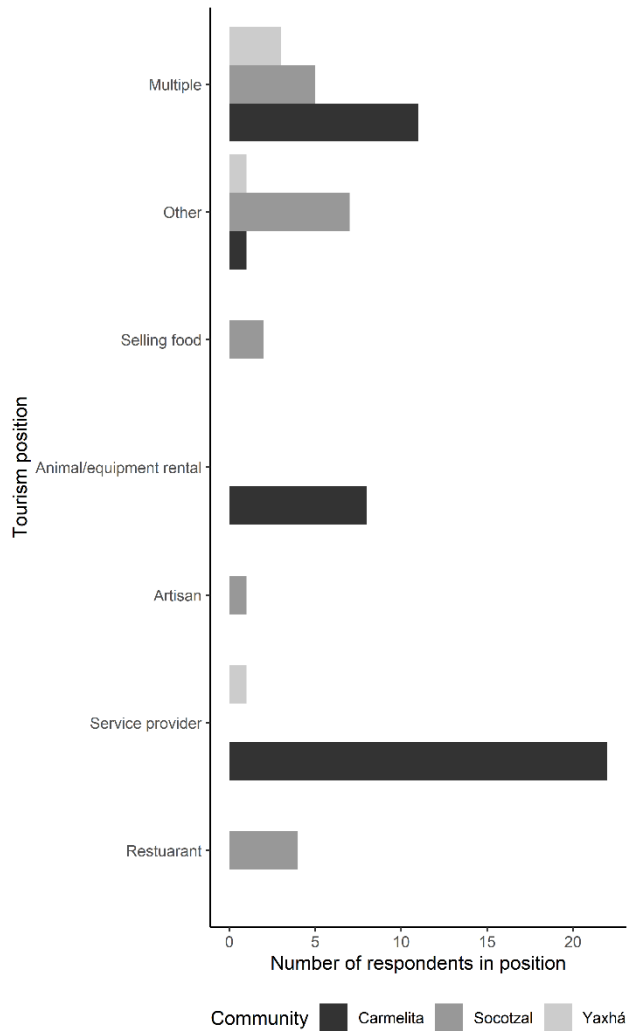
The distribution of households earning income in tourism in the past 12 months was nonrandom across the communities ( $X^2_2=32.23$   $p < 1.0 \times 10^{-6}$ ) with Carmelita households more likely to have earned income in tourism, and Socotzal households less likely to have (all  $p < 1.0 \times 10^{-6}$ ). Compared to the other most common income sources across the communities (selling chickens, selling crops besides corn, government support, and agricultural day-labor; see Figure 9), which contributed an average of 4-31% of household income for participating households, tourism contributed a notable, but not majority proportion of household income in Carmelita, Yaxhá, and Socotzal. There was no significant difference among the communities for tourism income earned in the past 12 months among participating households ( $X^2_2=2.08$ ,  $p=0.35$ ), although the higher proportions of income earned from employment in national parks in Yaxhá and Socotzal reflects more local employment within parks in these communities than for Carmelita residents in Mirador National Park (see Table 3).

*Table 5. Tourism participation and income across the three communities*

|                                                                                       | <b>Carmelita</b>   | <b>Yaxhá</b>       | <b>Socotzal</b>    |
|---------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|
| Percentage of households earning income in tourism (outside national park employment) | 72.2%              | 35.0%              | 20.0%              |
| Mean annual household income (Q)                                                      | 34,912 ±<br>31,071 | 41,559 ±<br>30,957 | 39,862 ±<br>31,403 |
| Mean twelve-month household income from tourism (Q)                                   | 6,465 ± 10,179     | 6,630 ±<br>17,536  | 2,303 ±<br>9,323   |
| Mean twelve-month household income from tourism for participating households (Q)      | 8,951 ± 11,031     | 18,943 ±<br>26,490 | 11,517 ±<br>18,719 |

|                                                                               |              |              |              |
|-------------------------------------------------------------------------------|--------------|--------------|--------------|
| Percent of household income derived from tourism for participating households | 27.8 ± 22.2% | 34.9 ± 35.1% | 16.8 ± 18.1% |
| Percent of household income derived from national park employment             | 1.4 ± 10.4%  | 20.3 ± 34.4% | 22.7 ± 34.3% |

Among the 134 surveyed heads of household, 66 had individually worked with tourists in the past 12 months, including individuals who described working with tourists as part of their employment in a national park. Service provider (i.e., guide, cook, mule driver) was the most common tourism position described, and the employment individuals held in tourism varied among the three communities (see Figure 8;  $p=2 \times 10^{-8}$ ).



*Figure 8. Participation in different tourism positions in the past 12 months by household heads.*

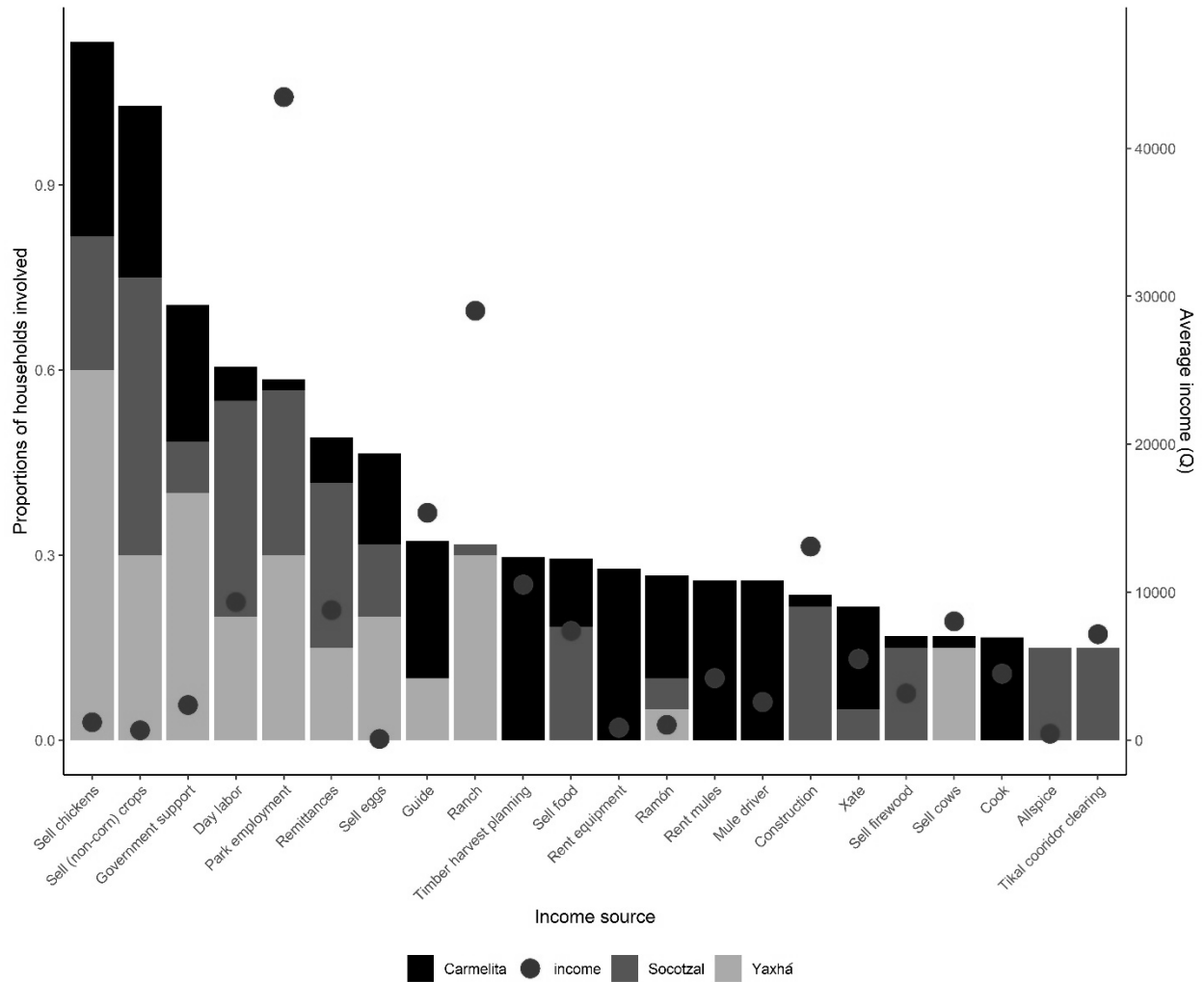
Average annual household income for all three communities hovered around minimum wage (roughly 3000 Q monthly), per standards set by the Guatemalan Ministry of Work. Calculated annual household income did not vary among the three communities (One-way ANOVA,  $F=0.786$ ,  $p=0.458$ ; Appendix I), although the large standard deviation for mean annual estimated income for each of the three communities reflects the rightward skew of income estimates for surveyed households, with few households earning substantially more income as

compared to their neighbors. Across the sample, the seven wealthiest households (those making over 100,000 Q or ~13,300 USD) had a comparatively high number of adults (the wealthiest households had six and seven adults compared to a mean of  $2.5 \pm 1.3$  adults per household) and/or were households where multiple adults had consistent, comparatively-well paid employment throughout the year. For example, these households had individuals working as chauffeurs, teachers, for a zip-lining company, in national park employment, or multiple adults able to secure pay as agricultural day-laborers or selling tortillas throughout the entire year. Two of the households in this group had received substantial amounts of income (more than 50,000 Q or 6,600 USD) in mule sales or remittances within the past year. These wealthiest households were distributed across the three communities (two in Carmelita, one in Yaxhá, and four in Socotzal) and their surveyed household heads tended to have higher education levels than the average, with five out of the seven surveyed household heads having completed primary education.

#### *Compatibility of tourism with other livelihood activities*

Respondents described participating in various income-earning activities at the individual and household level (see Table 4) and diverse livelihood activities across the communities (Figure 9), with over 100 different cash-earning activities identified among the 134 surveyed households. Indeed, some individuals self-described as being “de mil usos” (“of a thousand uses”), transferring their skills to available employment opportunities, particularly when a theme from the qualitative data was that residents perceived insufficient job opportunities across the three communities. Figure 9 demonstrates how participation and earned income varied across livelihood activities. Some jobs, such as permanent employment in national parks, represented high earning potential but a smaller portion of the community participating, whereas chicken

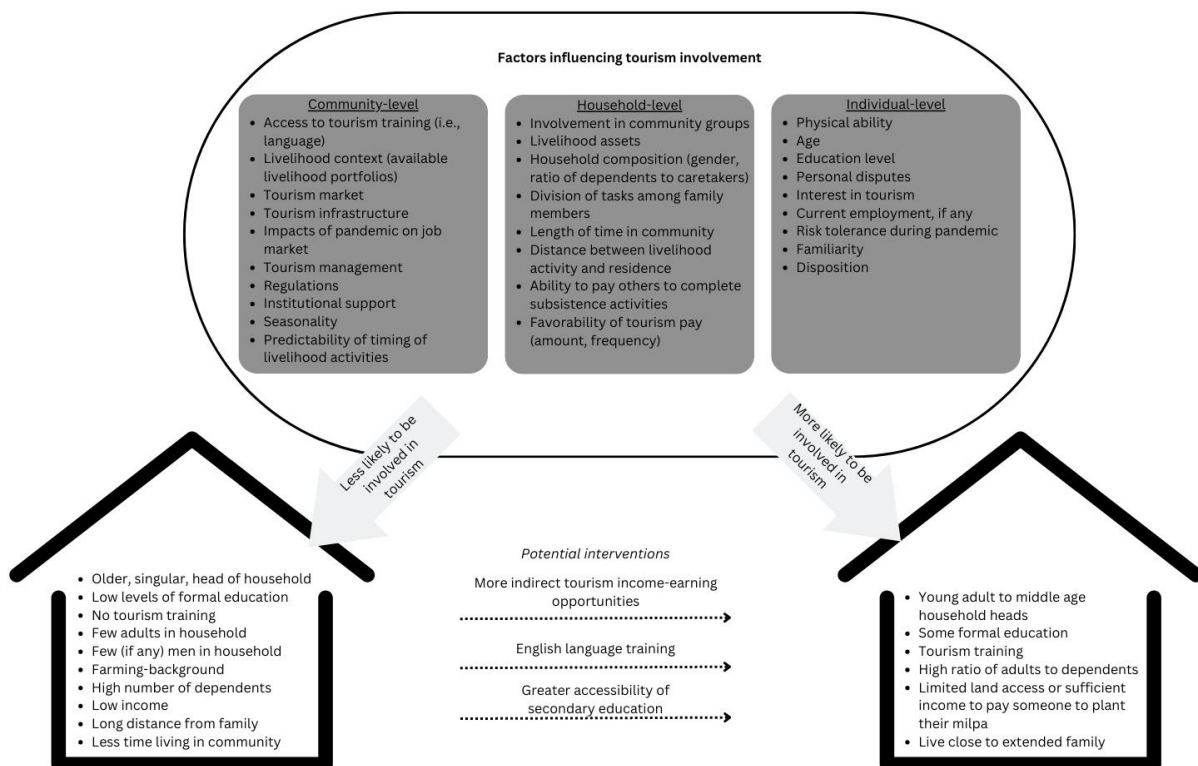
sales and selling crops were frequently used sources of cash but contributed relatively little income to households on average.



**Figure 9.** Proportion of households in each community involved in each livelihood activity and average annual income earned in the activity for participating households. For visualization purposes, the graph shows only income-earning livelihood activities in which at least 15% of households in a given community participated in the past 12 months.

In this context, respondents identified several factors at the community, household and individual levels influencing the decision to incorporate tourism in their livelihood portfolios or not (Figure 10). Variability in these factors among communities shaped the observed differences in patterns

of tourism involvement. Participants across all three communities identified six broad classes of limitations for tourism involvement: 1. a lack of formal education, knowledge, or training in tourism; 2. a lack of tourism potential or job opportunities in their community; 3. physical inaccessibility; 4. disputes with tourism management or regulations limiting participation; 5. a lack of time for participation; or 6. a lack of interest. However, the salience of each of these barriers varied by community. Carmelita residents most frequently mentioned limited tourism demand and managerial disputes as deterring individual involvement in tourism. Respondents in Yaxhá most often mentioned limited tourism opportunities and tourism training, and physical and family barriers. In Socotzal, participants most frequently described few job opportunities in tourism and a lack of tourism capacity-building training.



**Figure 10.** Factors influencing tourism involvement derived from reported barriers and tradeoffs with engaging in tourism as a livelihood activity. Hypothetical households share characteristics of households less or more likely

*to engage in tourism and dashed lines show potential interventions to make tourism income-earning opportunities more locally accessible.*

At the community level, different opportunities for tourism involvement affected patterns of participation. In both Carmelita and Yaxhá, the community enterprises offered various types of service provider opportunities, some on a more limited, less-intensive time commitment basis (like mule or equipment rental in Carmelita). Residents of Socotzal, on the other hand, tended to associate participation in tourism exclusively with working as guides. This association meant that respondents were acutely aware of educational and training barriers for tourism participation. One Socotzal resident described, “I don’t have the means to participate in tourism. A lot of times here in the community you have to have at least ninth grade to be able to take a tourism guide course.” Where community-guide level authorizations offered in Carmelita only required individuals to have completed primary-level education, the guide training classes offered in Socotzal were for regional-level guide authorization that required at least a ninth-grade education level, beyond the formal educational training of most of the surveyed adults across the three communities. Given the much larger international tourism market in Tikal, residents of Socotzal may also have been quicker to point out language barriers and the necessity of English language training to secure a tourism job. Further, Socotzal residents pointed out regulations that limited some of the less time-intensive or specialized skill tourism occupations, such as regulations about selling food in Tikal. One woman described, “Before it was free to enter the park. One could go in and sell what one had cooked...[now] one has to ask for permission through a lawyer to enter the park and sell one’s product... this was a decline for all of the sellers from here, the community.”



Secondly, the perceived availability of tourism jobs differed across the communities. Whereas Carmelita residents discussed specific market conditions as limiting tourism, residents of Yaxhá and Socotzal described few opportunities for tourism involvement in their communities more broadly. For example, Carmelita residents described that declines in the tourism market, especially in the context of the pandemic, limited jobs. One Carmelita resident explained, “[tourism] has declined because of the sickness [COVID-19]. There is no business. There are no sales. There is no work for the guide. There is not work for the assistant, for the cook, for the mule drivers, for the mules, for anyone.” Where the frequency of one’s opportunity to earn income in tourism depended on the passing of the tourism employment rotation, respondents noted declines in the tourism market as a major barrier for tourism participation. On the other hand, residents in Yaxhá and Socotzal described limited employment opportunities in tourism in general. One Yaxhá resident explained, “No, [working in tourism] is not accessible because no one else works in tourism here in the community. Only in the hotel, but that already has its employees.” She perceived few opportunities and limited involvement in tourism in the community, aside from one privately owned hotel near the park entrance but described that its employment needs were already filled.

Whereas Carmelita residents had less outside competition from private enterprises for tourism jobs than residents of Yaxhá and Socotzal, internal disputes about dividing jobs among community members were more contentious. Hence, managerial disputes and concerns of exclusion by the Carmelita Cooperative emerged more often in Carmelita. A former Carmelita cooperative member described, “Of the Cooperative, I did not like it because I saw the directing board’s management and I did not like it. I did not like it, so I quit.” Historic and ongoing

personal and familial disputes led some residents to feel there were in and out-groups in terms of who had access to jobs, like tourism.

The portfolio of livelihood activity alternatives also varied across Carmelita, Yaxhá, and Socotzal, changing the landscape of livelihood activity tradeoffs. For example, larger land holdings and a smaller population contributed to a greater proportion of employment on ranches in Yaxhá (Figure 9) and likely corresponded to community tourism leaders' concerns that it was hard to attract young adults to tourism jobs. A key informant explained, "The youth do not like tourism...we go to play football...I [tell them] that a large part of tourism generates wealth, but it is not overnight." His comment suggests that although there may be income-generating opportunities in tourism in Yaxhá, these were not attractive to youth, perhaps in part because of a longer turn-around in time investment as compared to other job opportunities in the community, such as employment as ranch hands. Moreover, they suggest a potential mismatch between recruitment efforts and who had more time availability and need for employment, when older individuals described difficulties finding employment, particularly in Yaxhá.

Across all three communities, residents described common decision factors for balancing livelihood activities, including the relative job stability of various livelihood alternatives, job schedules, seasonality, and decisions about how to divide income-earning and subsistence tasks among family members while individually completing one job at a time. For some, tourism was a back-up plan for when they were out of work. One mule driver in Carmelita described: "Because I take mule driver jobs when I am on a break from other jobs. For example, I prefer a job where I am going to go to work one month, two months, or three months of work. I always prefer that. But if it is a five-day job, I prefer my three months to those five days."

Hence, job schedules and seasonality influenced the compatibility of tourism and other livelihood activities. Peaks in recalled activity (when participants remembered in what month they had engaged in that activity) aligned with the *milpa de fuego* and *segundo* preparation times where land is cleared and burned for planting around March and April and a second corn crop is sown around October, with 20.9% of surveyed households participating in agricultural day-labor, mostly within Socotzal (Figure 9). Tourism service providers recognized the Holy Week holiday around March and April and the end of the year holidays as important peaks in tourism demand, consistent with household reports of when members were participating in tourism.

The similarity of tourism’s seasonality with that of other livelihood activities, particularly the overlap peak times of commonly-mentioned livelihood activities in March and April, especially in Socotzal (Figure 11), suggests that households may experience limited time availability and choose between livelihood activities during times of the year when more alternatives exist, but also experience periods during the year when there are fewer livelihood activities, for example in June (Figure 11).

| Activity  |                                 | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----------|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Socotzal  | Construction                    |     |     |     |     |     |     |     |     |     |     |     |     |
|           | Selling food                    |     |     |     |     |     |     |     |     |     |     |     |     |
|           | Harvesting/selling allspice     |     |     |     |     |     |     |     |     |     |     |     |     |
|           | National park employment        |     |     |     |     |     |     |     |     |     |     |     |     |
|           | Agricultural day-labor          |     |     |     |     |     |     |     |     |     |     |     |     |
| Yaxhá     | Ranch hand                      |     |     |     |     |     |     |     |     |     |     |     |     |
|           | National park employment        |     |     |     |     |     |     |     |     |     |     |     |     |
|           | Agricultural day-labor          |     |     |     |     |     |     |     |     |     |     |     |     |
| Carmelita | Timber harvest planning         |     |     |     |     |     |     |     |     |     |     |     |     |
|           | Cook (tourism)                  |     |     |     |     |     |     |     |     |     |     |     |     |
|           | Guide (tourism)                 |     |     |     |     |     |     |     |     |     |     |     |     |
|           | Muleteer (tourism)              |     |     |     |     |     |     |     |     |     |     |     |     |
|           | Gathering/packageging xate palm |     |     |     |     |     |     |     |     |     |     |     |     |
|           | Gathering/washing ramón nut     |     |     |     |     |     |     |     |     |     |     |     |     |
| Tourism   |                                 |     |     |     |     |     |     |     |     |     |     |     |     |

Figure 11. Seasonality of tourism and most common livelihood activities in each community. The figure shows the most common jobs in each community (in which at least 15% of households participated, excluding common income

*sources that did not represent a significant time investment like sporadically selling animals, animal products, or produce, renting animals or equipment or receiving government financial support or remittances) and when participants recalled participated in them. Grey boxes indicate participants reported participating in that month and black boxes show peak seasons, when there were more reports (at least one standard deviation above the average) of participating in that month. The tourism peak months are derived from key informant interviews.*

### *Involvement in commercial agriculture and ranching*

However, there were no apparent tradeoffs in tourism participation and agricultural and ranching, activities of conservation concern in the region. Many households sold agricultural products besides corn (35%), but this production was very small in scale, only contributing about 670 Q annually to household income, on average (Figure 9). While growing corn tended to take more land and earned households more income on average (about 3700 Q annually), only about 7% of surveyed households sold corn. Moreover, there was no association between whether households earned income in tourism in the past 12 months and if they reported selling or planning to sell any crops ( $X_1=0.27$   $p=0.61$ ). The overall number of households who worked their own ranches was quite small, with only eight households owning cattle, six of which resided in Yaxhá. Herd sizes were also relatively small, with the interviewed households owning between 1-30 cows.

### Discussion

This comparative case study improves understandings of the relationships between local tourism management and community livelihood development and conservation. A mixed methods approach revealed that community-management has an advantage in distributing diverse tourism participation opportunities across the community and that patterns of balancing

varied livelihood activities obfuscate direct tradeoffs between tourism and agriculture or ranching-based livelihoods.

While this study focused on three, relatively small, rural communities in Guatemala, the cases illustrate how different tourism management strategies correspond to different opportunities and barriers for local participation in tourism, particularly the tradeoffs between more capitalistic and communitarian approaches. The community-tourism enterprise generated much higher levels of local participation in tourism, providing strong evidence for the potential of CBT to contribute to poverty alleviation through a greater local distribution of livelihood benefits (Goodwin & Santilli, 2009). Particularly, the more protectionist model of tourism where the Carmelita Cooperative has greater control over tourism access to the nearest national park because the hiking route passed through the community's concession area (CONAP & WCS, 2018; Romero Obando, 2011) contributed to the success of the CBT enterprise. Elsewhere, in Nepal, Nyaupane and Poudel (2011) similarly found, unsurprisingly, that communities closer to sites frequented by tourists had more successful community-based tourism enterprises. Although Yaxhá and Socotzal were comparatively closer to the nearest national parks, and both these parks received substantially more tourists than the park closest to Carmelita, Mirador National Park, competition with other small to large tourism operators from other rural towns and urban areas (INGUAT, 2018) caused residents to both perceive fewer opportunities for tourism involvement and contributed to the observed lower levels of tourism employment in Socotzal than Carmelita.

Additionally, differences in perceived limitations for tourism training highlighted differences between participation in tourism in the private sector and the community-based enterprises. In Socotzal, the community with the least developed community-management authority over tourism, residents perceived formal educational attainment, tourism-capacity-

building, and language training among the greatest obstacles for tourism involvement, consistent with other studies finding training a major obstacle for equitable participation opportunities for local community members in tourism (Dolezal & Novelli, 2022; Fortanier & van Wijk, 2010; Park et al., 2018). Community-based tourism initiatives, on the other hand, tend to emphasize capacity-building training opportunities (Park et al., 2018; Yanes et al., 2019; Mtapuri & Giampiccoli, 2016) whereas the private sector may not explicitly emphasize this objective. For example, Fortanier & van Wijk (2010) found that foreign-owned hotels in sub-Saharan Africa tended to hire well-trained employees from local hotels rather than providing training, suggesting limits to private sector investment in local human capital and a lesser commitment to capacity development approaches to poverty relief (Sen, 1990).

Moreover, this study suggests that CBT diversifies what it means to participate in tourism, for example, through equipment/animals rentals, artisanal product sales, or gastrotourism, thereby creating greater local opportunities to participate (Mayaka et al., 2018; Park et al., 2018; Taylor, 2017; Giampiccoli & Jalis, 2012; Ting et al., 2019) that avoid formal education barriers.

This research adds to the growing awareness that lack of access to education, tourism training, and physical barriers especially facing the elderly may preclude some of the most vulnerable members of communities from participating in community-based tourism projects (Park et al., 2018; Dolezal & Novelli, 2022; Dionosio et al., 2019). Hence, future study should investigate the potential of livelihood activity alternatives, such as snack sales to tourists visiting national parks, for individuals otherwise excluded from tourism enterprises because they cannot spend significant amounts of time away from home.

Despite the advantages of the community-based model in supporting local livelihood opportunities through consolidating local control of tourism, local capacity building opportunities, and diversifying tourism jobs, community-based tourism enterprises still face challenges. As in Carmelita, the literature documents social barriers for tourism participation and managerial disputes and concerns within community-based enterprises (Pawson et al., 2017; Zielinski et al., 2020; Taylor, 2017). Carías Vega (2019) notes that MBR concession management limits private entrepreneurship to the chagrin of individual residents and families interested in developing tourism enterprises outside of cooperative management. In this context, sense of ownership of a community-enterprise is important (Okazaki, 2008). In Carmelita, where tourism is community-based according to definitional standards (Zielinski et al., 2020; Spenceley, 2008; Goodwin & Santilli, 2009), some residents still see the directing board as an external, “other” managing institution, reflecting challenges observed elsewhere that even when community-based tourism supports income-generating opportunities, participation is often passive (Yanes et al., 2019; Okazaki, 2008; Pawson et al., 2017; Park et al., 2018). Moreover, the lower visitation of Mirador, and the absence of park admission fees also likely relates to lower rates of observed direct employment of community members by the park as compared to Yaxhá and Tikal (CONAP & WCS, 2015). While park jobs do not necessarily have direct interactions with tourists, they represent relatively attractive job opportunities in rural communities wanting more stable, reliable, income sources for households. Still, given the differences in local participation in tourism across the three gateway towns, this study cautions against the assumption that growth in tourism necessarily entails more local employment opportunities (Mtapuri & Giampiccoli, 2016; Higgins-Desboilles et al., 2019; Schilcher, 2007; Feng & Li, 2020). Additionally, the

livelihood diversifying role of CBT buffers against household propensity to fall into poverty in the event of loss of other income sources in less diverse livelihood portfolios (Scoones, 1998).

By emphasizing the factors behind household decision making, like seasonality, availability of other employment opportunities, and household composition and labor distribution (Luo et al., 2022; LaPan et al., 2021; Su et al., 2019), the livelihood lens applied in this study illuminates that the relationship between tourism, livelihood gains, and conservation is more nuanced than tourism simply creating an economic incentive to conserve forests (Nyaupane & Poudel, 2011; Woodhouse et al., 2022; Hill et al., 2015). Given the high diversity of livelihood activities within the communities, the tradeoffs between activities, the participation in tourism as a supplemental source of income, and the low levels of participation in commercial agricultural and ranching, this study suggests that attention to small-holder livelihoods as drivers of deforestation in the MBR (Hodgdon et al., 2015; Fortmann et al., 2017) is likely exaggerated. Indeed, community-based tourism may be used as a tool to reduce deforestation insofar as it strengthens the social, human, and financial capital of community institutions and forest governance, more so than by providing economic incentives for local households to switch to alternative livelihood activities expected to be more consistent with maintaining forest cover (Ostrom, 1990; Butler, 2021; Yanes et al., 2019; Salafsky & Wollenberg, 2000; Reyes-Santiago et al., 2022).

This work provides a model for how mixed-methods case study research and analysis of the broader livelihood context can form a template for better understanding factors facilitating and prohibiting local community participation in tourism. As such, it forms a helpful guide for policymakers and practitioners interested in generating greater local employment opportunities in tourism.



### *Limitations and suggestions for future study*

While the focus on three communities and the collection of data during the COVID-19 pandemic limit the spatial and temporal generalizability beyond the three cases surveyed (Yin, 2003), this study proffers a theoretical explanation for how community tourism management influences the livelihood context in which households make decisions about participating in tourism and provides a research methodology to investigate and compare outcomes of tourism in local communities beyond northern Guatemala. Particularly because the tourism industry is highly susceptible to shocks (Taylor, 2017; Gössling et al., 2021), future researchers interested in tourism as a sustainable development strategy should take a closer look at the role of tourism in household livelihood resilience and investigate more in-depth how rural communities that depend upon tourism as a substantial part of their economies can become more resilient to alleviate rural poverty.

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## Chapter 3: When does tourism lead to local empowerment?: Comparing community-based tourism as an alternative to participation in tourism in the private sector

### Abstract

Developed as an alternative to private-sector led tourism development, community-based tourism (CBT) centralizes host community well-being and empowerment. However, there is less comparative work of tourism management practices and application of local-level indicators to explain the mechanisms through which CBT achieves empowerment goals. Hence, in a mixed-methods embedded case study, this research compared three towns in Guatemala's Maya Biosphere Reserve to examine how different trajectories of local management authority over tourism shaped empowerment outcomes along five dimensions using a series of empowerment indicators. We found strong evidence that community-based management enhances economic and political empowerment, but that there are both synergies and tradeoffs in empowerment indicators. This work provides both evidence for why CBT is a more sustainable alternative than conventional tourism development and a methodology that can be adapted to evaluate tourism's contributions to empowerment in other small, rural, communities.

Key words: Empowerment, community-based tourism, sustainable development, governance, community capitals

## Introduction

The Covid-19 pandemic and climate crisis have strengthened the frequency and urgency of calls for the prioritization of host community well-being and positive environmental relationships in tourism management (Phelan et al., 2020; Higgins-Desbiolles & Bigby, 2022; Higgins-Desbiolles, 2020; Gössling et al., 2020; Sharpley, 2020). In response to this call, this paper examines how community-management authority over tourism can better lead to host community economic, psychological, social, political, and environmental empowerment.

Since the 1970s, alternative types of tourism, such as pro-poor tourism and sustainable tourism have aimed to address the economic marginalization of host communities (Scheyvens & Russell, 2012; McCool & Bosak, 2016; UNWTO, 2023). One subset of alternative tourism, community-based tourism (CBT), specifically aims to generate local collective benefits through centrally organized, locally owned or managed small to medium scale tourism enterprises (Zielinski et al., 2020). However, the actual achievement of Sustainable Development Goals and pro-poor outcomes in tourism have lagged behind (Scheyvens & Hughes, 2019; Phelan et al., 2020; Sharpley, 2020). As with other alternatives to conventional private-sector led tourism development, community-based tourism demonstrates shortcomings that limit achievement of local community empowerment: limited long-term financial viability, leakage and elite capture (the unequal distribution of tourism economic benefits either outside the host community or only to local elites), and failures to achieve environmental conservation goals despite intentions (Kiss, 2004; Brandt & Buckley, 2018; Taylor, 2017; Dolezal & Novelli, 2022; Coria & Calfucura, 2012). At the same time, CBT enterprises show promise to enhance host community well-being through reducing leakage, generating local tourism jobs and revenues, and the adoption of

sustainable resource management plans (Brandt & Buckley, 2018; Phelan et al., 2020; Peredo & Wurzelmann, 2015; Mtapuri et al., 2022).

The mixed results of CBT projects highlight that much of the mechanism through which tourism development leads to empowerment goals, such as poverty relief and local conservation efforts remains unknown (Agrawal & Redford, 2006). Understandings are limited in part because much research is dominated by case studies the broader applications of which may be less obvious beyond the study region (Agrawal & Redford, 2006; Yin, 2003; Zielinski et al., 2020) and larger literature reviews may lump and base critiques of CBT enterprises in non-comparable situations and with all outdoor tourism activities (Stronza et al., 2019). Indeed, that a CBT project exists is likely far less important for local community outcomes than how it is implemented. Scholars point out that limitations to community-management authority over tourism often critically impair the extent to which tourism delivers localized socioeconomic benefits (Peredo & Wurzelmann, 2015; Coria & Calfucura, 2012; Yanes et al., 2019).

Hence, evaluating tourism management practices under a comparable set of indicators explains when and why tourism empowers local communities. Indeed, previous work has established the importance of indicators to monitor tourism's contributions to the Sustainable Development Goals, although researchers less frequently apply these indicators to small, locally owned enterprises (Rasoolimanesh et al., 2020; Roberts & Tribe, 2008). Adopting smaller-scale, locally focused indicators and an emic perspective ensures that assessments of CBT can better fit the local context and incorporate tourism host community objectives and perspectives (Mayaka et al., 2018).

Therefore, this study evaluates local community empowerment across three sites with different extents of community-management authority over tourism using indicators derived



from Scheyvens' (1999) widely cited empowerment framework. This framework defines empowerment holistically according to economic, social, psychological, and political dimensions. More recent work has added an environmental dimension to the empowerment framework addressing the extent to which communities “gain power to protect and preserve the surrounding ecosystem” (Mendoza Ramos & Prideaux, 2014, p.465; Mendoza Ramos & Prideaux, 2018), which I subsequently adopt in this paper. Economic empowerment entails enduring, and equitably distributed economic gains from tourism, while psychological empowerment describes increased self-esteem and confidence among tourism service providers and tourism host communities in response to external recognition (Scheyvens, 1999).

Social empowerment derives from the maintenance of community equilibrium and enhanced cohesion from collaboratively working on a tourism enterprise. Particularly, it aims to ensure that socially disadvantaged groups benefit from tourism and do not disproportionately bear its costs (Scheyvens, 1999; Boley et al., 2017). The marginalization of individuals based on social distinctions such as race, caste, and gender limits empowerment in tourism development (Babb, 2012; Dolezal & Novelli, 2022; Vizcaino-Suárez & Díaz-Carrión, 2019). This work particularly examines the inclusion vs. exclusion of women in tourism as an indicator of social empowerment (or disempowerment) as reducing gender-based discrimination is a priority for community-based tourism development in Central America, where this study is located (Zapata et al., 2011; LaPan et al., 2021)

Political empowerment describes the extent of community-management authority over tourism and the existence of governance mechanisms to incorporate the needs and interests of all community groups (Scheyvens, 1999). The political dimension of empowerment is particularly relevant as governance indicators of sustainability tend to be underrepresented in the literature

(Rasoolimanesh et al., 2020). For a full list of the empowerment indicators used in this study, please see Table 6 and Appendix J.

Scholars have applied the empowerment framework through both quantitative and qualitative methodologies to derive indicators of empowerment and disempowerment and to assess outcomes of CBT enterprises (Joo et al.; 2020; Dolezal & Novelli, 2022; Dionisio et al.; 2019; Gohori et al., 2021; Eshun & Asiedu, 2021). While Mendoza Ramos and Prideaux (2014) propose and test (2018) a wheel of empowerment framework that they argue can be used to compare empowerment outcomes across communities, less work has explicitly applied this framework to compare outcomes across sites. Therefore, we adapt the wheel of empowerment framework following similar methods of assessing empowerment rankings based on qualitative and quantitative data (Mendoza Ramos & Prideaux, 2014, 2018; Scheyvens, 1999; Table 6) in order to better compare empowerment outcomes of tourism across communities and develop better understandings of how the tourism management context contributes to host community empowerment or not.

*Table 6. Literature-derived empowerment and disempowerment indicators*

| <b>Empowerment dimension</b> | <b>Indicators</b>                                  |                                          |
|------------------------------|----------------------------------------------------|------------------------------------------|
|                              | Empowered                                          | Disempowered                             |
| Economic                     | Cash earned is shared among many families          | Only local elites participate in tourism |
|                              | Visible signs of improvement from tourism revenues | Tourism degrades existing infrastructure |

|               |                                                                                                                                                                  |                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|               | (improved water systems, houses made of more permanent material)                                                                                                 |                                                                                                      |
|               | Community retains access to productive natural resources (hunting/agricultural lands)                                                                            | Community loses access to productive natural resources                                               |
|               | Profits invested in community-tourism management or communal benefits (improved communal infrastructure like schools, roads, water collection, waste management) | Profits accrued by outside agencies (government, private sector) without local investment            |
|               | Portion of residents' income tied to tourism                                                                                                                     | Residents do not earn any income from tourism                                                        |
| Psychological | Self-esteem of many community members enhanced because of outside recognition of                                                                                 | Community members' self-esteem lowered because of the perpetuation of harmful stereotypes in tourism |

|        |                                                                                                                                      |                                                                                  |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|        | uniqueness and value of their culture/their natural resources/their traditional knowledge                                            |                                                                                  |
|        | Increase in access to employment and cash leads to increased status for traditionally low-status members of community (women, youth) | Decreased status of traditionally low-status members of community (women, youth) |
|        | Have confidence to talk with tourism donors                                                                                          | Lack confidence to talk with tourism donors                                      |
|        | Interest/enthusiasm/optimism in tourism initiative                                                                                   | Confusion/frustration/disinterest/disillusionment with tourism initiative        |
|        | Perceived control of local planning and decision making                                                                              | Fear of losing control over local planning and decision making                   |
| Social | Community equilibrium maintained or enhanced                                                                                         | Disharmony or social decay                                                       |

|           |                                                                                           |                                                                                                                      |
|-----------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
|           | Improved community cohesion by working together on enterprise                             | Disaccord because of tourism enterprise                                                                              |
|           | Strong community groups                                                                   | Weak or absent community groups                                                                                      |
|           | Disadvantaged groups (i.e., women) share equitably in tourism benefits                    | Disadvantaged groups (i.e., women) bear brunt of costs of tourism development and do not share equitably in benefits |
|           | Individuals/families cooperate                                                            | Individuals/families compete                                                                                         |
| Political | Community's political structure fairly represents needs/interests of all community groups | Community's political structure represents or favors particular groups                                               |
|           | Political structure provides forum for addressing questions/concerns with tourism         | No political structure or recourse for addressing questions/concerns with tourism                                    |
|           | Opportunities for socially disadvantaged groups (women, youth, special                    | Socially disadvantaged groups (women, youth, special interest groups) excluded from decision-making positions        |

|  |                                                                                             |                                                                                                   |
|--|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|  | interest groups) to be on decision making boards                                            |                                                                                                   |
|  | Power over tourism making decisions decentralized from national to local level              | Power over tourism making decisions centralized                                                   |
|  | Appropriate institutions for training in tourism finances and technical skills              | Lack of institutional capacity to develop skills and training in tourism                          |
|  | Self-sustaining operation through administrative capacity                                   | Enterprise not self-sustaining                                                                    |
|  | Community rights over tourism resources and revenues/awareness of value of community assets | Community lacks rights over tourism resources and revenues/awareness of value of community assets |
|  | Community members feel they have a vote and voice in tourism management decisions           | Community members feel they have little to no say in whether or how tourism operates              |

|               |                                                      |                                                                 |
|---------------|------------------------------------------------------|-----------------------------------------------------------------|
|               | Active participation in tourism management decisions | Participation in tourism remains passive                        |
| Environmental | Low impact ecotourism activities and management plan | No environmental policies for tourism                           |
|               | Rubbish management                                   | Litter and no waste management practices                        |
|               | Community conservation area and monitoring           | Absence of community conservation area and monitoring practices |
|               | Natural environment utilized for tourism             | Lack of natural capital for tourism                             |

In this study, I particularly examine the extent to which host community authority over tourism management affects empowerment outcomes, paying attention to how differences in community tourism decision making structures and the accessibility of tourism employment options affect performance on locally defined and externally derived empowerment indicators in three national park gateway towns with different trajectories of local community tourism participation.

## Methods

### *Case study*

In an ethnographic embedded case study (Yin, 2003; Creswell & Creswell, 2018), I evaluated the extent to which examples of the range of tourism management in the three gateway towns to national parks described in chapter two contributed to local community empowerment within the

Maya Biosphere Reserve (MBR). Established in 1990, the Reserve is the largest protected area in Central America, and about 19% of Guatemala's territorial area (Hodgdon et al. 2013; CONAP & WCS, 2018). The National Council of Protected Areas (CONAP for the Spanish acronym) oversees the management of the reserve (CONAP & WCS, 2018).

The MBR is known worldwide for Mayan archaeological sites and nature-based tourism opportunities (INGUAT, 2018). The varying relationships between national parks within the reserve and their nearest gateway towns (CONAP et al., 2009; CONAP, 2006; Ministerio de Cultura y Deportes, 2003) as previously described, make it an important place to compare tourism's effects on local community empowerment. Tikal, Yaxhá-Nakúm-Naranjo (hereafter Yaxhá) and Mirador-Río Azul (hereafter Mirador) national parks receive the most annual tourist visitation in the reserve, with approximately 300,000; 27,000, and 2,500 annual visitors, respectively (CONAP & WCS, 2018). The three nearest gateway towns to each of these parks, Carmelita outside Mirador, Yaxhá outside Yaxhá, and Socotzal outside Tikal, represent distinct phases of community-based tourism development.

Of the three communities, Carmelita has the most extensively developed community-based tourism enterprise. With a population of 120 families (personal communication with president of the community development board, November 18, 2021), the small town is located within the San Andres municipality and the multiple-use zone of the Reserve. As the Carmelita Cooperative, residents hold a community concession of 53,797 hectares (ha) through which 80% of the land-based route to Mirador National Park passes (Contrato de Concesión Forestal, 1997; personal communication with community leader, Novem 22, 2021). Their main tourism offering is a multi-day hiking trek from the community to Mirador National Park. Carmelita's tourism enterprise first formed as independent family groups led tourists on hikes, and the Carmelita



Cooperative later consolidated organization of tourism, although one family-based tourism company remains in operation (Romero Obando, 2011). The concession is also promoting a new destination within the concession, Puerto Arturo, for avitourism (birdwatching), wildlife tourism, and photography. Carmelita operates a tour operator office in the urban area of Flores that sells and organizes tour packages (Cooperativa Carmelita, 2023).

Yaxhá is the least populous of the three towns studied, with 20 households living in the community for at least 6 months of the year at the time of study. Residents of Yaxhá can participate in a CBT enterprise, The Association for Sustainable Development of the Yaxhá Territory (ASODESTY), an umbrella organization of seven tourism service organizations (guides, boat operators, artisans, transportation, convenience item sales, artisanal snack production, and a restaurant). Although community members and non-governmental organizations began organizing ASODESTY earlier, the association first signed a contract in 2018 (later renewed in 2021) with the Vice-ministry for Cultural Patrimony and CONAP agreeing that the member associations of ASODESTY could sell goods and services to tourists within Yaxhá National Park's visitor center (Romero, 2013; Convenio de Cooperación, 2018). ASODESTY also maintains a commercialization cooperative, COINCY, responsible for the financial management of the association (personal communication with ASODESTY leader, February 10, 2022). Park regulations specify that the park should preferentially ensure sustainable development opportunities (e.g., park jobs and ecotourism) for residents of park-adjacent communities and that a percentage of tourism entrance fees be invested in public projects (e.g., improved water infrastructure) in these communities (Romero, 2013). Outside of ASODESTY, residents of the Yaxhá community can work in tourism on their own or in other private tourism businesses. Yaxhá is located at the boundaries of the buffer, multiple-use, and

strictly protected areas of the Maya Biosphere Reserve, and within the Flores municipality (Romero, 2013).

Socotzal, with a population of 153 households (personal communication with auxiliary mayor, September 7, 2021), is also located within the Flores municipality (Romero, 2013). Unlike the other two communities Socotzal does not have a community-based tourism enterprise, although residents of the community earn income in tourism either through employment in private tourism enterprises or through government employment in Tikal National Park. Socotzal is similarly situated at the boundaries of the multiple-use, buffer, and strictly protected areas.

#### *Data sources*

Through roughly nine months of mixed-methods field research in the Maya Biosphere Reserve, with most time divided among the three communities, I conducted livelihood surveys with randomly selected household heads using the survey piloting and sampling method described in the previous chapter, semi-structured interviews with tourism service providers, focus groups (Appendix K), and key informant interviews, as well as content analysis of tourism management plans and legal documents for the three communities and national parks (Table 7). I identified tourism service providers to interview about tourism involvement through the household-level livelihood surveys and interviewed them during or after the surveys, depending on respondent availability. If park employees indicated that they interacted with tourists as part of their jobs, we asked them the tourism service provider interview questions, although we tabulated income earned in the park and tourism separately in the livelihood surveys to distinguish between governmental, private, and community-based tourism employment. In each community toward the end of data collection, I hosted separate focus groups, dividing

individuals involved or not involved in tourism, and at least one focus group of just women. In Socotzal and Yaxhá, I conducted three focus groups (with 3-9 respondents) each: one with individuals involved in tourism, one with women, and one with young adults, whom community leaders identified as an important group to include because of interest in future tourism development in the community. Because of pandemic-related concerns for larger group gatherings and incompatibility between participants' schedules I conducted five mini focus groups (with 2-3 participants each) in Carmelita: one of women not involved in tourism, one of men not involved in tourism, one of women indirectly involved in tourism, and two with tourism service providers). With participant permission, I audio-recorded livelihood surveys, focus groups, and tourism service provider and key informant interviews.

*Table 7. Comparative case study data sources*

| <b>Case</b> | <b>Documents reviewed</b>                                                                                                                         | <b>Livelihood surveys</b> | <b>Tourism service provider interviews</b> | <b>Key informant interviews</b> | <b>Focus groups</b> |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------|---------------------------------|---------------------|
| Carmelita   | 2009-2013 Master Plan<br>Mirador-Río Azul<br>National Park and<br>Naachtún-Dos Lagunas<br>Protected Biotype;<br>Carmelita Concession<br>Contract; | 54                        | 38                                         | 24                              | 5                   |

|          |                                                                                                                                                                                                                |    |    |    |   |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|---|
|          | Plan for Public Use of Mirador National Park                                                                                                                                                                   |    |    |    |   |
| Yaxhá    | 2006-2010 Yaxhá-Nakúm-Naranjo National Park Master Plan; ASODESTY consultation report<br>Contract between ASODESTY, CONAP, and the Vice-ministry for cultural and natural patrimony; ASODESTY business license | 20 | 10 | 26 | 3 |
| Socotzal | 2003-2008 Tikal National Park Master Plan                                                                                                                                                                      | 60 | 24 | 8  | 3 |
| Regional |                                                                                                                                                                                                                |    |    | 5  |   |

### *Data analysis*

I used previously established indicators of empowerment (Scheyvens, 1999; Mendoza Ramos & Prideaux, 2014; Strzelecka et al., 2017ab; Cole, 2006; Boley et al., 2017) to evaluate levels of community empowerment across economic, psychological, social, political, and

environmental dimensions. I digitized all field and interview notes, and audio-coded portions of the livelihood survey recordings where participants spoke about participation in tourism or to the empowerment indicators. I then transcribed these portions of the livelihood surveys, the tourism service provider questions, the key informant interviews and focus groups. Using NVivo software (Release 1.7.1), I inductively coded these transcripts through open coding to identify respondents' own characterizations of empowerment (Appendix L) as well as deductively coded these transcripts and the management plans, according to the literature-derived indicators (Saldaña, 2013). With these codes, I created a database for each of the three communities containing participant responses and management plan excerpts, highlighting examples of empowerment or disempowerment for each of the three communities.

For select indicators, I included quantitative criteria from the livelihood surveys and management plans. Particularly for the economic indicators of empowerment, I considered the number of households that earned income in tourism or a national park in the past 12 months, whether households that earned money in tourism were wealthier than their neighbors, number of households with access to agricultural land, and the average portion of household income derived from tourism or the national park (Appendix J). One psychological indicator of empowerment was that tourism increased status among traditionally low-status members of a community like women and youth. Hence, I considered the number of female surveyed household heads who reported ever earning income in tourism and the age distribution of household heads who were tourism service providers. Among criteria for the political empowerment indicators, we considered the portion of household heads who participated in tourism associations and the proportion who believed they had a voice in tourism management decisions. To develop this second criterion, we coded participants' responses to an open-ended survey question about

having a voice in tourism, into a binary “yes-no” variable. We also considered the number of representatives from each community involved in the development of the adjacent national park’s most recent management plan and the number of surveyed household heads who had leadership positions in tourism either from serving on a decision-making board or managing their own business. All descriptive and inferential statistics were calculated in RStudio (2022.07.1). A t-test compared household income among households that did and did not earn income in tourism for each community, using log-transformed income data in Carmelita and Socotzal to achieve a normal distribution.

Similar to Mendoza Ramos and Prideux’s work in Mexico (2014; 2018), I ranked the level of empowerment of in each dimension on a five-point scale for comparative and illustrative purposes. Using both the database of participant responses speaking to empowerment or disempowerment for each indicator and these quantitative criteria, I assigned each indicator a grade of disempowered, slightly disempowered, mixed, slightly empowered, empowered, or no effect from tourism according to a five-point scale where 1= disempowered, 2= slightly disempowered, 3= no observed effect or a mix of empowering and disempowering effect, 4= slightly empowered, and 5=empowered. Grades of empowered or disempowered, respectively, entailed strong evidence of that indicator with no counterexamples or few counterexamples of a limited scope. Slightly empowered or slightly disempowered indicators could have both supporting and contradicting evidence, but had comparatively more supporting evidence, whereas indicators ranked as mixed had both evidence towards the empowering and disempowering indicator that negated each other. Indicators ranked as no effect entailed no changes in the community attributable to tourism for that particular metric. For greater reliability, I compared these grades to earlier grades assigned in the field and shared with community

leaders, to ensure consistency and resolve inconsistencies in grading by reconsidering the evidence. Please see Table 9 with an example of indicators and their grading. To illustrate differences in empowerment across the communities, I summed scores for each dimension and reported them as proportions of the highest possible empowerment score in each dimension based on the number of indicators (5 indicators each in economic and environmental empowerment, 6 indicators each for psychological and social empowerment, and 10 political empowerment indicators).

## Results

### *Respondents' definitions of empowerment*

Participants described myriad definitions of empowerment that followed and justified the application of the five-dimension (economic, political, social, psychological, and environmental) framework. Particularly, they highlighted empowerment as someone's knowledge and abilities, with limited access to education considered one challenge for empowerment. One resident of Socotzal described, "Study is the fundamental base. Hence, the truth is that one who has not had study will find it a little difficult to work in tourism." Respondents also emphasized a futuristic vision of empowerment that focused on youth, children, and future generations, as well as definitions that focused on personal achievement. These ideas could be interrelated. For example, one mother described: "Because that is what I have most worked. In tourism, I have worked. Imagine, for 18 years up to now and from that I have achieved putting my children through school." Her response ties together ideas of tourism empowerment as providing jobs, personal achievements, and being education and future-generation focused. Her empowerment through tourism employment fostered empowerment for her children through her ability to invest in their

education. Respondent conceptualizations of empowerment were most frequently cross-coded with economic and political indicators of empowerment, highlighting the salience of these empowerment dimensions.

However, interview and focus group respondents did not always favorably define empowerment, with some individuals equating it with “power over” or taking advantage of someone. One respondent from Socotzal explained:

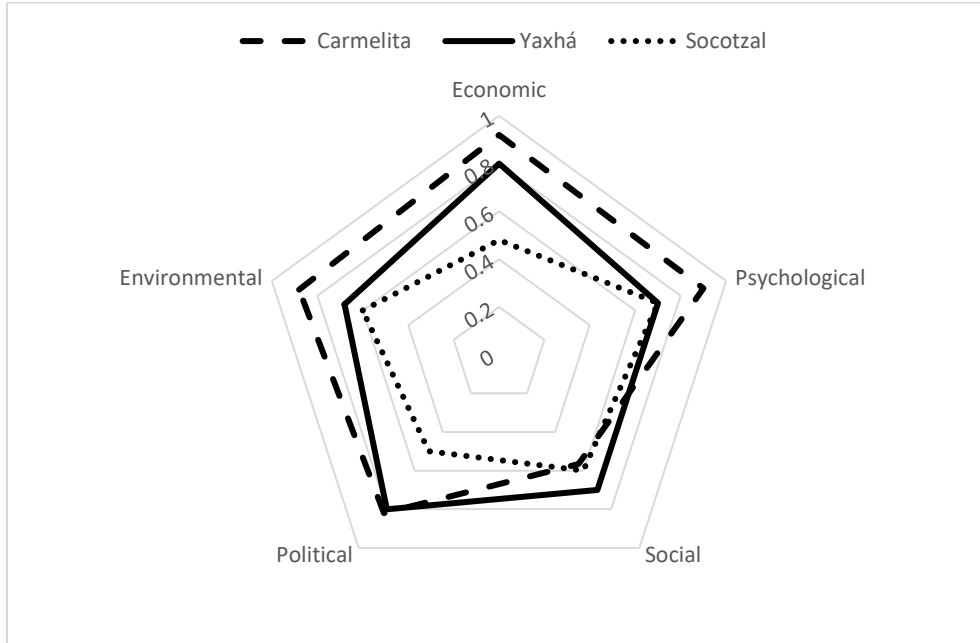
Empowerment is as if, at least, this is yours. But I want to take it and you do not have papers [a title for a property]. And I, perhaps, with a lawyer can get papers [for it]...now it is mine and they give it to me.

His concern echoes an uneasy land tenure situation for individuals living within the MBR, especially within the community with the least access to agricultural land (see Appendix J). Simultaneously, the response implies that formal education, while empowering, could also be abused to disempower others, like the lawyer in his example.

Based on interview responses, we additionally adopted four new empowerment indicators, one each across the psychological, social, political, and environmental dimensions. (Please see the full list of empowerment indicators, scores, and rationales for scores in Appendix J). Respondent pride in tourism knowledge/skills vs. a perceived lack of skills to engage with tourists represented a novel indicator of psychological empowerment or disempowerment, respectively, while opportunities for positive intercultural interactions vs. negative interactions with tourists emerged as a new social indicator of empowerment. External institutional support for community-based tourism (CBT) development (or lack thereof) was an indicator of political empowerment (or disempowerment), and residents’ espousing positive attitudes toward conservation activities for tourism was an indicator of environmental empowerment.



*Comparison of relative empowerment across the communities*



*Figure 12. Total empowerment scores reported as proportions of potential total score for each community across the five empowerment dimensions.*

Overall, the indicators in Carmelita and Yaxhá tended toward empowerment while Socotzal had lower rankings for most indicators. Please see Figure 12 with a graphical representation. These results supported the hypothesis that community-management of tourism contributed to greater local empowerment overall, with different tourism decision making structures and varying accessibility of tourism employment in each community shaping empowerment outcomes (Table 9). However, the community-based tourism case in Carmelita scored lower on the social dimension of empowerment, reflecting that while some empowerment indicators were related synergistically, high scores in one dimension did not necessarily entail high scores in others.

*Table 8. Comparison of tourism in the three communities*

| <b>Community</b>          | <b>Carmelita</b>                                                                                                                                                                                                                                                                                         | <b>Yaxhá</b>                                                                                                                                                                                                                                                                                         | <b>Socotzal</b>                                                                                                                                                                                                                                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tourism job opportunities | <p>Guided hike to Mirador National Park with service providers;</p> <p>Tour of Puerto Arturo with service providers;</p> <p>Lodging/camping infrastructure;</p> <p>Low level of employment in Mirador National Park;</p> <p>Low level of tourism employment outside community at private enterprises</p> | <p>Selling goods (artisan products/foods, convenience items) and services (boat trip, transportation, guiding, restaurant) in Yaxhá National Park Visitor center;</p> <p>Family-owned stores, camping in Yaxhá community;</p> <p>Privately-owned hotel;</p> <p>Employment in Yaxhá National Park</p> | <p>Individuals work in privately owned tourism enterprises;</p> <p>Authorized guides work independently or as members of Association of Tikal Guides, Ah Cacao;</p> <p>Tourists occasionally visit stores in community;</p> <p>Informal sales of food to tourists in line at park entrance;</p> <p>Employment in Tikal National Park</p> |

|                                               |                                                                                                                             |                                                                                                                                                        |                                                                           |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Tourism organizational structure in community | Community cooperative                                                                                                       | Association (ASODESTY)<br><br>Tourism commission of the community development board (COCODE)                                                           | Tourism commission of the COCODE                                          |
| Local decision-making authorities             | Cooperative Carmelita;<br><br>Supplementary role of COCODE and auxiliary mayor                                              | COCODE president/auxiliary mayor                                                                                                                       | COCODE president/auxiliary mayor                                          |
| Local tourism authorities                     | Cooperative Carmelita (particularly the directing board, Cooperative president, and appointed tourism coordinator position) | ASODESTY directing board and directing boards of member associations;<br><br>COCODE president/auxiliary mayor;<br><br>Tourism commission of the COCODE | COCODE president/auxiliary mayor;<br><br>Tourism commission of the COCODE |
| Park management authorities                   | CONAP                                                                                                                       | CONAP and the Ministry of Culture and Sports                                                                                                           | Ministry of Culture and Sports                                            |

|                                                                                                                       |       |       |       |
|-----------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| Percentage of surveyed household heads who felt that they, overall, had a voice in tourism decisions in the community | 51.9% | 35.0% | 35.0% |
| Percentage of surveyed household heads who indicated they participated in a tourism association                       | 53.7% | 15.0% | 10.0% |
| Number of surveyed household heads who had leadership or administrative roles in tourism                              | 1     | 5     | 0     |

|                                                        |                                                                                                                                                                                                                                   |                                                                                                                                                                                                            |                                                                                                                  |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Mechanisms to incorporate resident feedback on tourism | Personal communication with community leaders about concerns in tourism;<br>Reunions of tourism service providers;<br>Assemblies of Cooperative members;<br>Elections of Cooperative Directing Board, COCODE, and auxiliary mayor | Personal communication with community leaders;<br>ASODESTY and its member associations reunions and meetings<br>Community meetings;<br>Elections of ASODESTY Directing Boards, COCODE, and auxiliary mayor | Personal communication with community leaders;<br>Community meetings;<br>Elections of COCODE and auxiliary mayor |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|

*Table 9. Sample indicators graded at each level across the five empowerment dimensions. Please see Appendix J for a full list of indicators, their grades, and the rationales for each grade.*

| <b>Empowerment dimension</b> | <b>Indicator</b> | <b>Community</b> | <b>Score</b> | <b>Rationale</b> |
|------------------------------|------------------|------------------|--------------|------------------|
|                              |                  |                  |              |                  |

|               |                                                                                        |          |                        |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------|----------------------------------------------------------------------------------------|----------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Psychological | Have confidence to talk with tourism donors                                            | Socotzal | Empowered (5)          | <ul style="list-style-type: none"> <li>• Successful applications for projects: The tourism commission of the COCODE actively seeks funding for projects from government institutions like the Ministry of Agriculture and Ranching (MAGA), the municipality and NGOs. It secured subsidized funding to host a guide training class in Socotzal while navigating a bureaucratic process to host classes</li> </ul> |
| Economic      | Cash earned is shared among many families vs. only local elites participate in tourism | Yaxhá    | Slightly empowered (4) | <ul style="list-style-type: none"> <li>• Resident perceptions: Respondents described Yaxhá National Park as an important source of employment, and some who worked with tourists described it as a good source of income. However, some suggested that there were few sources of tourism jobs in Yaxhá, such as the hotel, which already had employees.</li> </ul>                                                |

|  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  |  | <ul style="list-style-type: none"> <li>• Distribution of income: 35% of surveyed households had earned income in tourism, and 30% had earned income from the park in the past 12 months</li> <li>• Wealth difference: There was no difference in mean household income among households that did and did not earn income in tourism (<math>t = -1.6724</math>, <math>df = 12.645</math>, <math>p\text{-value} = 0.119</math>)</li> <li>• Income distribution management: ASODESTY member associations invited interested service providers to work in the visitor center on a rotational basis. Respondents described not all members participated because of other commitments</li> </ul> |
|--|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|        |                                                               |           |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------|---------------------------------------------------------------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Social | Improved community cohesion by working together on enterprise | Carmelita | Mixed (3)     | <ul style="list-style-type: none"> <li>• Conflict resolution mechanisms: The auxiliary mayor has responsibility to mediate social conflicts in the community, none of which reached the level of the Cooperative. The Mirador Management Plan notes that past, unorganized tourism development initiatives and a lack of leadership divided communities.</li> <li>• Feelings about tourism: Participants noted that tourism did not affect the sense of community as tourists spent little time in Carmelita itself or anticipated tourist arrivals with excitement. However, another respondent described being considered an “enemy” for criticizing tourism management in the community.</li> </ul> |
| Social | Disadvantaged groups (i.e., women) bear brunt                 | Carmelita | No effect (3) | <ul style="list-style-type: none"> <li>• Participation of particular groups/limited local costs of tourism: Some women participated in</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



|               |                                                                        |       |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|------------------------------------------------------------------------|-------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | of costs of tourism development and do not share equitably in benefits |       |                           | <p>services that did not accompany tourists on the hike to care for children at home but were not negatively affected by tourism.</p> <ul style="list-style-type: none"> <li>• High-risk jobs: Some respondents described that mule drivers had dangerous and potentially life-threatening jobs when they climbed trees to harvest leaves to feed mules while on the tours, but muleteers did not seem to constitute a particularly socially disadvantaged group outside of tours.</li> </ul> |
| Environmental | Rubbish management                                                     | Yaxhá | Slightly disempowered (2) | The community participates in cleaning up the town and Yaxhá National Park has waste receptacles, but respondents lamented litter in the community and the absence of a waste collection system there. One interviewee criticized a neighbor for dumping trash, while others thought                                                                                                                                                                                                          |

|           |                                                                                      |          |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|--------------------------------------------------------------------------------------|----------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                                                                                      |          |                     | that people from outside the community littered while driving by.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Political | Community members feel they have little to no say in whether or how tourism operates | Socotzal | Disempowered<br>(1) | <ul style="list-style-type: none"> <li>• Perceptions of having a voice: Tourism service providers mainly indicated that their bosses made decisions about tourism management.</li> <li>• 35.0% of survey respondents indicated that overall, they felt they had a voice in tourism decisions.</li> <li>• Loss of control of local situation: Helicopters companies now give the community advance notice before using the field to land, but still do not compensate Socotzal for use of the field.</li> </ul> |

While only Socotzal had indicators scored as disempowered (in the political, economic, and environmental dimensions), all three communities had indicators scoring from slightly disempowered to empowered. The high scores in the psychological dimension of empowerment for all three communities were driven in part by the high confidence community leaders' demonstrated in pursuing government funding and non-governmental organization partnerships to advance tourism opportunities. All three communities had resident-elected community-development councils (COCODE for the Spanish acronym) and auxiliary mayors that identified opportunities for social support in their communities. However, key informants described that the member-elected Carmelita Cooperative directing board had more practical authority than the COCODE overseeing the Carmelita's economic activities, including tourism. In Yaxhá and Socotzal, the voluntary tourism commission positions and paid auxiliary mayor position on the development councils more opportunistically organized tourism development opportunities (like classes) in their respective communities.

Social empowerment indicators in all three communities tended toward mixed or no effect, in part because residents described that tourists most often spent time in the towns only in passing, if at all. For example, women in the focus group in Socotzal, noted a lack of impact of tourists in the social atmosphere in the town, mainly for lack of contact with them:

“Interviewer: Have there been changes living together [as a community] because of tourism?”

Maria<sup>c</sup>: No

Juana<sup>c</sup>: We do not harm them, nor do they harm us.”

---

<sup>c</sup> Pseudonyms

However, social disputes about how to distribute tourism benefits and some evidence of competition among service providers contributed to lower scores of social empowerment in Carmelita, the community with the most economically developed community-tourism enterprise. Some residents of Carmelita objected to the more centralized management of tourism under the Cooperative as opposed to the earlier organization of independent family-run enterprises. A resident described, “Before, when I began to work, I began to work when we worked as individuals. We brought tourists here to my house. Then the Cooperative came and began to say that we could not work anymore.” Some respondents argued that the centralized management structure of the Cooperative did not fairly represent the community, particularly residents who elected not to join the cooperative. This organization contrasted with the more dispersed community leadership of ASODESTY in Yaxhá. Each of the seven ASODESTY member associations had their own directing boards, and guides could opt to sell their services to tourists independently in other national parks in the region, provided they pay dues to ASODESTY whenever they procured tours in the Yaxhá National Park visitor center. Hence, although centralized community-organization contributed to a higher rate of local employment opportunities in tourism than less centralized organization, it did not guarantee that residents perceived a fair distribution of jobs. Moreover, that residents of Carmelita perceived tourism as a relatively more lucrative and accessible job opportunity than did residents of Socotzal and Yaxhá, as described below, likely favored increased competition for tourism jobs in Carmelita as compared to the other communities. For example, a Carmelita resident described, “Because the community is very small and it is that we are many who live from the source [of employment] of tourism,” characterizing both a high level of economic empowerment from tourism, but also the potential for social disempowerment from this high dependency on tourism driving competition.

*Community-based management and greater accessibility of tourism employment contribute to higher economic empowerment*

The most pronounced difference in empowerment occurred along the economic dimension in part because of differences in tourism job opportunities, external competition for tourists among the three towns, and the different origins of the community-based enterprises in Carmelita and Yaxhá. Of the five empowerment dimensions, Carmelita had the highest proportion of slightly empowered or empowered indicators in the economic category largely due to the high success the community cooperative had at creating local job opportunities in tourism (with over 70% of surveyed households having earned income in tourism in the past 12 months). There was also no difference in household income between households that did and did not work in tourism in Yaxhá and Carmelita (both  $|t| < 1.1$ ,  $p > 0.10$ ), while households with tourism income in Socotzal tended to be wealthier than their neighbors ( $t = -3.31$ ,  $p\text{-value} = 0.004$ ), suggesting a lesser distribution of tourism job opportunities. Livelihood surveys suggesting a myriad of different tourism service providing opportunities in Yaxhá and Carmelita (i.e., guides, mule/equipment rental, artisan product sales, restaurants), in part explain the greater options for tourism employment and thus greater avenues for economic benefit distribution in these two community-managed cases.

However, unlike Carmelita which largely controlled access of the land-based route to Mirador National Park because it passed through land leased to the Carmelita Cooperative for forest management, Yaxhá did not have near-exclusivity on tourism offerings in the area. The tourism organizations of ASODESTY competed with independent, privately-owned tourism agencies to sell tourists services in the park. This competition led some residents to believe that

tourists just passed by the town. One resident described, “Tourism here, no. A little. Almost none. More than anything they pass by in their cars.” Another highlighted that more urban towns dominated tourists’ preferences, stating, “The center of tourism is Flores. In Flores, they give you food and they give you lodging and transportation. Therefore, tourists visit Flores. Hence, capturing tourism here would not be a good business.” These responses highlight Yaxhá residents’ concerns of a small market share of tourism in the town itself.

In Socotzal, these concerns were compounded by the absence of a community-based tourism enterprise. While community leadership was hosting a local-level guide training class in the community in the hope that graduates of the class in Socotzal may be able to form their own association of guides, interview respondents perceived few tourism jobs currently available in the town. While Socotzal had the highest proportion of surveyed households earning income from the nearest national park (38.3%; as compared to 30.0% in Yaxhá and 1.9% in Carmelita), residents not employed by the park described limited access opportunities to benefit from it. For example, respondents described a bureaucratic process to request permission to sell food to tourists in the park and that Tikal park management seldom granted these permissions. Further, helicopter tour companies used the community soccer field in Socotzal as a landing base without any compensation to the community.

Besides the varying levels of external competition, the different origins of community-based tourism in Carmelita and Yaxhá explained Carmelita’s relatively greater economic empowerment. While tourist demand inspired family groups to become involved in tourism before there was a central community enterprise in Carmelita, ASODESTY emerged as a conservation and sustainable development mechanism in response to land conflict precipitated by the establishment of the MBR. When protected area declarations around Yaxhá National Park

displaced natural-resource based livelihoods and created ambiguity over residents' property or land possession rights, community groups sought compromises with the park to create livelihood opportunities in surrounding communities. One key informant acknowledged that tourism itself was not the priority, so much as conservation:

The objective for this intervention, communities-park, was the conservation of the natural and cultural patrimony of the park. The strategy...was to create cohesion in the communities, coordinate them, bring them together and achieving motivating them in favor of conservation...But how were we going to create cohesion and mobilize these communities? That we defined at the tactical level, and the tactical level is where finally we define promoting the economic activity of tourism.

The comparatively more market-driven community-tourism enterprise development in Carmelita than Yaxhá, likely contributed to the enterprise's economic successes and strong performance on indicators of economic empowerment like a high distribution of tourism jobs, a portion of residents' income tied to tourism, and investments in community enterprise management.

#### *Synergies, tradeoffs, and disconnects among empowerment dimensions*

Broadly similar empowerment scores across the dimensions within each community (Figure 12) suggest some levels of synergies between empowerment indicators. Low scores on some indicators could also contribute to lower scores on others. For example, in Yaxhá, some respondents perceived that young adults in the community were not interested in tourism (a psychological indicator of disempowerment), which lowered the social capacity to form strong community groups (a social indicator of empowerment). Respondents across the communities also consistently mentioned limited access to formal education and training as barriers to empowerment across the dimensions. For example, one Carmelita respondent voiced concerns that limited access to formal education would hinder Carmelita residents abilities to compete

with an influx of larger tourism enterprises should the proposed construction of a highway to Mirador National Park materialize. He described, “ [Construction of the highway] will impact the community...[If] we are not prepared, we will not have anything. How can we have work if what they are now asking for is a degree?” Here, limited access to education/training (a political indicator of disempowerment), contributed to fear of losing local control of the tourism enterprise (psychological disempowerment) because of perceived diminishing local job opportunities due to competition (economic disempowerment).

While lower empowerment in one dimension could lower empowerment in others, in other cases high performance on certain empowerment indicators could challenge performance on others. For instance, Carmelita residents overall expressed a high level of pride in their capabilities in tourism (a psychological indicator of empowerment). However, this indicator could work against social empowerment when some residents, particularly ones working in either the Cooperative or the remaining separate family-based enterprise, perceived they were better able to manage tours than their neighbors.

Still other indicators suggested more limited or tangential effects from tourism, particularly in the environmental empowerment dimension. Government authorities, rather than the communities, made management plans for each of the national parks (Table 8), lessening the association between communities and indicators of environmental empowerment or disempowerment. Only the Carmelita Cooperative made management plans for large tracts of communal land. Households in Yaxhá had more individually owned land than the other two communities, with 95% of surveyed households describing access to their own or a family member’s agricultural land (as opposed to 72.3% in Carmelita and 30% in Socotzal). While interview respondents described conservation incentives on their own parcels, they suggested



that decisions outside of their holdings were beyond their control. For example, some respondents mentioned environmental concerns for a private landholding adjacent to the park, but outside of the community. An ex-governmental official previously had business dealings on the land, but when he was accused of corruption, external actors moved onto the land and began illicit agricultural, ranching, and harvesting activities. One resident described, “There, along the lagoon, that I was going to show you from above [on a hill] is the invaded country estate. It belongs to a former government worker of Guatemala...Now it is invaded. A lot of people are there harvesting wood and all that. But because it is private, no one can say anything. CONAP can get involved-only the government.” Respondents in Yaxhá and ASODESTY saw the greatest challenges to environmental empowerment as largely outside their control. One participant highlighted concerns of corruption and conspiracy on the “invaded” estate, describing, “They [the people responsible for invading the land] are criminals. You should not recognize them. What happened is that they grabbed the land and later hired poor people to work there. So, you know these poor people, but the person in charge is another. Hence, there are problems there, serious problems like narcotrafficking. And CONAP is just there. They do not want problems.” Although the vision of ASODESTY is to promote sustainable development in the Yaxhá territory in part through the “protection of cultural and natural patrimony,” respondents’ quotations suggest that major obstacles to achieving this vision lay beyond local community control. Hence, while the community intended tourism as a tool for conservation, the connections to environmental empowerment were more tenuous.

*Community-based management contributes to stronger political empowerment*

Despite the limitations to environmental empowerment in CBT, the towns with local tourism enterprises did show comparatively higher levels of political organization and empowerment than Socotzal, the community without a CBT enterprise. Whereas Mirador, Yaxhá, and Tikal management plans all included the objectives that national parks create sustainable development opportunities in local communities and included some representatives from the communities in the elaboration of the management plans (Appendix J), the communities of Carmelita and Yaxhá had more negotiating power over tourism in practice than Socotzal. The Carmelita concession included areas of interest to tourists outside the national park, and ASODESTY signed an agreement that local service providers have access to the park visitor center. Interview respondents described a unique empowerment potential in Yaxhá as compared to other national parks in Guatemala because a portion of revenue from the park was allocated to the municipality for local development projects. In Yaxhá, these funds were used to bring potable water to the town.

Yaxhá and Carmelita both had internal leadership structures for their CBT enterprises, managed by ASODESTY and the Carmelita Cooperative, respectively. Member-elected directing boards (comprised of a president, vice-president, secretary, treasurer, and at least one additional board member) made tourism decisions, such as with what institutions to form alliances, how to distribute tourism benefits, and whom to admit to the associations, reflecting community members voices in decision making. These structures offered opportunities for individual empowerment through personal achievement in taking on more tourism management responsibilities. Yaxhá had a larger portion of surveyed household heads serving in leadership positions than Carmelita, in part because of the smaller size of the community and the more disperse leadership structure. Employees of private enterprises, on the other hand, such as

residents of Socotzal who worked in canopy tours indicated that the business owners made most tourism management decisions. However, residents of all three communities did take on supervisory roles in tourism.

A moderate to a slight majority of surveyed household heads described feeling like they had a voice in tourism management decisions in their communities: 51.9% (Carmelita), 35.0% (Yaxhá), and 35.0% (Socotzal; Table 8). The reasons respondents felt they had limited voice varied by community. In Yaxhá and Socotzal, residents perceived that few tourism decisions were made at the town level, limiting the context in which one would share opinions about tourism. In Carmelita, residents who felt that they had limited voice described concerns that the Cooperative did not take their tourism management concerns into account, especially if too few tourism service providers noted the same issue. Others described that they personally did not work in tourism and thus did not go to service provider meetings or felt uncomfortable speaking in group settings. Thus, decentralizing tourism management contributed to a slightly greater perception of political empowerment at the community level, but perceptions of political empowerment at the level of individuals' involvement in tourism varied.

## Discussion

This study finds that community-management shows promise to increase community empowerment as compared to conventional tourism management in a strictly-protected area, and that this difference is most pronounced under political and economic dimensions of empowerment, while connections to social, psychological, and environmental empowerment are present, if weaker. These findings are significant considering governance indicators of sustainability are less evaluated compared to metrics related to the economic and environmental

empowerment, like employment and biodiversity conservation (Rasoolimanesh et al., 2020; Butler & Current, 2022; Bennett & Satterfield, 2018; Dangi & Petrick, 2021). Yet, the political indicators of empowerment applied in this study, including the decentralization of decision-making power to local authorities, the presence of a political structure that fairly represents all community groups, and an enterprise that is self-sustaining through administrative capacity show significant overlap with criteria of good governance including effectiveness and equity (Bennett & Satterfield, 2018).

Indeed, the designation of world heritage sites, like Tikal National Park, is a deeply political process with a historic lack of engagement of local communities and potential unintended consequences of undermining local culture in an emphasis on global heritage (Leask & Fyall, 2006; Jimura, 2011). The findings in this study add to a growing body of work suggesting that empowering local communities in tourism requires meaningful shifts in power from external stakeholders to local communities (Gohori & van der Merwe, 2022; Zielinski et al., 2020; Díaz Rocca & Zielinski, 2022; Sofield, 2003), highlighting the centrality of local management authority to other community empowerment outcomes.

Nonetheless, both this study and others find that shifts in power to community-level authorities do not necessarily entail a fair balance of power across the community, with persistent concerns about elite capture and the equitable distribution of tourism job opportunities (Dolezal & Novelli, 2022; Gohori & van der Merwe, 2021). Indeed, in this study, participants occasionally depicted empowerment as “power over” or “taking advantage of” and while this definition could highlight the changing power dynamics from central government and industry to the local level inherent in empowerment (Sofield, 2003), it also exemplifies the tensions and power struggles within communities.

This study points to challenges achieving social empowerment in community-based enterprises. The application of the empowerment dimensions bears strong resemblance to the literature on community capitals, the natural, cultural, human, social, political, financial and built (infrastructural) resources communities possess (Emery & Flora, 2006). While Emery and Flora (2006) describe that the other capitals spiral up from the bonding social capital that creates social cohesion, and the bridging capital that creates ties between the community and other organizations, this research suggests potential tradeoffs between empowerment dimensions when this social cohesion threshold is not met. Service providers competed in Carmelita despite relatively high levels of political, economic, psychological, and environmental empowerment. Consistent with other studies, this research finds that community-management does not guarantee social unity, and that communities can be empowered in some dimensions, but not others (Díaz Rocca & Zielinski, 2022; Taylor, 2017; Dolezal & Novelli, 2022; Gohori & van der Merwe, 2021; Eshun & Asiedu, 2021).

The emphasis on job generation as an important empowerment indicator echoes findings elsewhere in the literature emphasizing local economic development. Studies across the globe documenting residents' perceived benefits of tourism in rural communities in Peru, Vietnam, Indonesia, and South Africa, and Botswana, for example, find that access to more, and often better-paid or otherwise more desirable job opportunities are among the main advantages of tourism development, particularly in areas with otherwise limited employment options (Huang et al., 2022; Stronza, 2007; Phelan et al., 2020; Stone & Nyaupane, 2018; Setokoe et al., 2019). Similarly, the grounded-theory derived indicators of empowerment from participants' responses echo characterizations of empowerment found elsewhere. Positive feelings toward conservation for tourism as an indicator of environmental empowerment reinforce the theory that community-

based tourism can serve as a conservation mechanism by enhancing local incentives to conserve natural resources (Nyaupane & Poudel, 2011; Salafsky & Wollengber, 2000). Similarly, other studies and the United Nations World Tourism Organization have touted the development of new skills in tourism and the opportunity for positive intercultural exchanges with tourists as among the advantages of CBT development in rural communities (Pearce, 2008; UNWTO, 2021; Gunawijaya & Pratiwi, 2018; Stronza & Gordillo, 2008; Tran & Walter, 2014).

The support from external institutions as an indicator of political empowerment represents a complicated case. While interview respondents viewed external support as empowering, juxtaposed with feelings of isolation or abandonment by the state, some writers point out that dependency upon external funders and institutions undermines community empowerment in tourism because it challenges the long-term sustainability of communal enterprises and makes communities dependent on external institutions' agendas (Dangi & Petrick, 2021; Sofield, 2003; Kiss, 2004). Nonetheless, Sofield (2003) and Sharpley (2002) argue that given the sociopolitical and economic marginalization of many communities potentially interested in tourism development, some level of external support is necessary to shift the existing power balance for local empowerment. Thus, external support for CBT development remains a facilitator of community empowerment at least in the short term, while longer term dependency on external funding and technical assistance may limit a community enterprise empowerment over a longer period.

This work suggests the comparative advantage that community-based management has over strictly protected area tourism development in promoting community empowerment and the usefulness of the empowerment framework to meaningfully compare the local impacts of tourism development. This framework is useful in that it can both be built upon indicators

established in the literature (Scheyvens, 1999; Mendoza Ramos & Prideaux, 2014; Strzelecka et al., 2017ab; Cole, 2006; Boley et al., 2017), while remaining versatile enough to be adapted across communities and geographic settings in order to better include the underrepresented voices and perspectives of residents of tourism hosting communities in the Global South (Gohori & van der Merwe, 2022; Eshun & Asiedu, 2021). One limitation of the framework for comparing community-based and non-community-based tourism enterprises, however, is that the presence of a central community-based organization (Zielinski et al., 2020) implies at least some sort of political structure for addressing questions with tourism, an indicator of political empowerment (Scheyvens, 1999; Strzelecka et al., 2017ab), indicating that community-based tourism enterprises are, by definition, at least partially more politically empowered than private enterprises. Yet, this study and others show that community-management in name may not necessarily extend to active voice and equitable participation by community members in practice (Park et al., 2018; Díaz Rocca & Zielinski, 2022; Yanes et al., 2019), making continued comparisons of community-based and other tourism enterprises' levels of political empowerment relevant. While this study gave equal weight to each indicator and separately compared the five empowerment dimensions, future work could investigate weighting the indicators depending on researcher and community priorities for particular types of empowerment.

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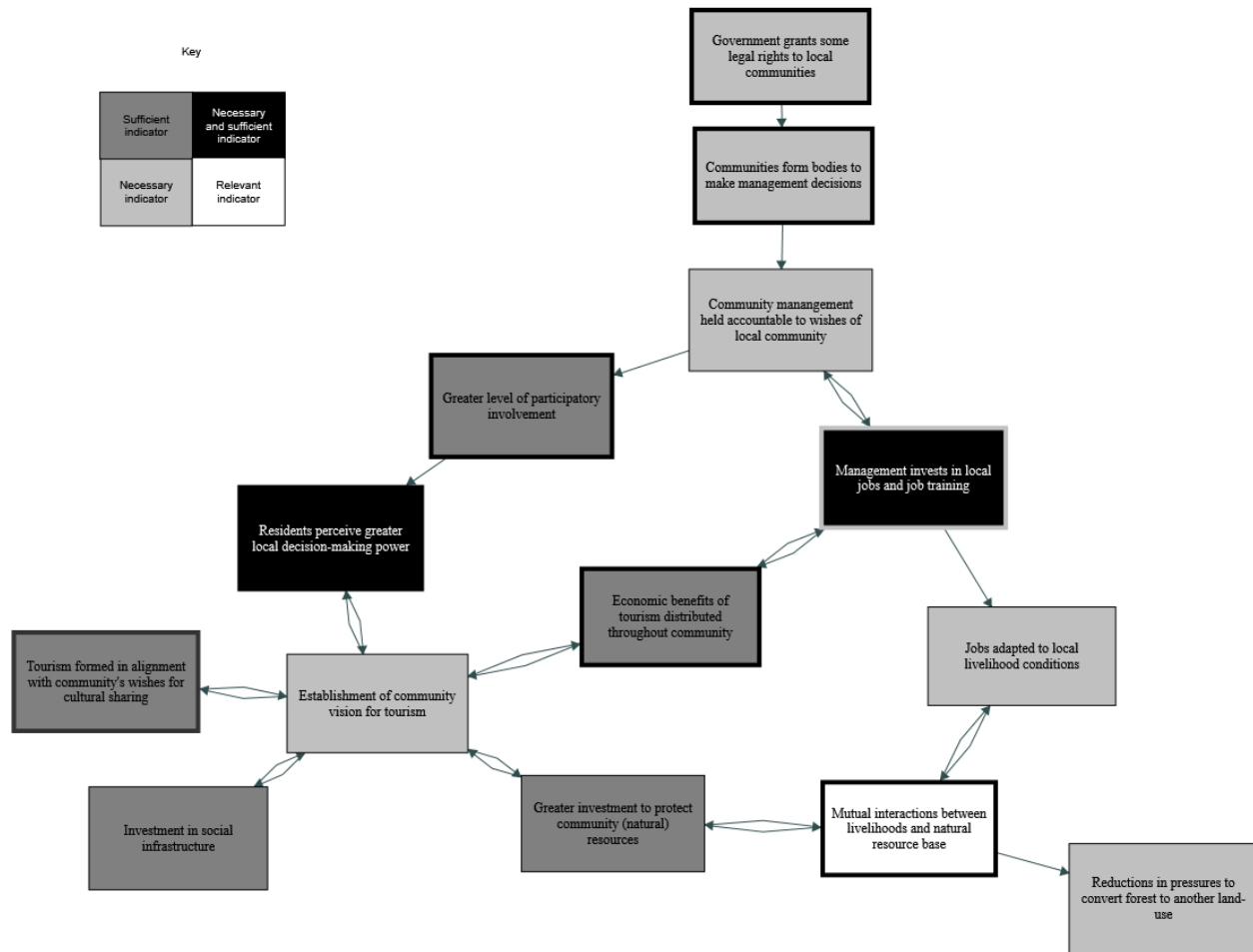
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## Conclusion

*Revisiting the causal mechanism: Does community management authority over tourism better support local livelihoods and incentive conservation than conventional, market-based tourism development in strictly protected areas?*

Overall, the embedded and comparative case studies (Yin, 2003) presented in the previous three chapters suggest strong evidence that shifting tourism management from external stakeholders to local communities provides opportunities for job training, encourages high levels of employment in tourism while recognizing the balance between tourism and other livelihood activities, distributes economic benefits throughout the community, and ensures that community-members feel psychologically empowered from external recognition of the community and the skills of service providers. Together, the three chapters allow for process tracing (Wauters & Beach, 2018) to examine the causal mechanism by which community-management tourism management leads to sustainable livelihood development (Figure 13).





*Figure 13. Evaluation of community-based tourism process tracing mechanism. The combined studies present strong evidence for the indicators with bolded outlines and some evidence for the other indicators.*

Chapter 1 introduces the sustainable livelihoods systems framework (DFID, 1999; Scoones, 1998) as a method to contextualize the role of tourism in supporting households' livelihood portfolios as well as applies an equity lens to the distribution of tourism employment opportunities within a CBT enterprise. It finds that community-based tourism contributes to a high, but gendered distribution of tourism across the community and that tourism is a critical, but not stand-alone part of households' livelihood portfolios.

Next, Chapter 2 builds upon these findings to compare the livelihood impacts of tourism in gateway towns to national parks with different degrees of community-management authority

over tourism to investigate whether community-based management better supports local livelihood opportunities than conventional tourism development. It also examines potential linkages between tourism and conservation by investigating whether there are livelihood incentives to shift from commercial agriculture and ranching to tourism. The chapter demonstrates that community-based management encourages a substantially wider distribution of tourism income earning opportunities than conventional tourism management. Yet, tourism positions are still often temporary, and the different livelihood contexts across the communities shape the compatibility of tourism with existing livelihood activities. The study also found that few households in gateway towns engaged in ranching and that there was no association between small-scale sales of agricultural products and participation in tourism, questioning both the logic that participation in tourism lessens natural resource dependency (Nyaupane & Poudel, 2011; Brandt & Buckley, 2018; Woodhouse et al., 2021) or that smallholders' livelihood alternatives and incentives on their own are a meaningful lens to understand patterns of forest land conversion (Devine et al., 2020; Woodhouse et al., 2021).

Finally, Chapter 3 examines if and how community-based tourism contributes to greater local empowerment across the five-dimensional economic, social, psychological, political, and environmental framework (Scheyvens, 1999; Mendoza Ramos & Prideaux, 2014, 2018) than conventional, growth-oriented tourism in a protected area using an embedded case study design (Yin, 2003) in the same gateway towns. This chapter finds substantial evidence that CBT leads to greater empowerment, particularly in the economic and political dimensions, but that links between local management and psychological, social, and environmental empowerment are more tenuous.

Figure 13 highlights that while these studies suggest some evidence that community-tourism management leads to the formation of strong community groups and that community members observe links between conservation and tourism, links to social and environmental empowerment are weaker than the ones between community-tourism management and a localized distribution of economic benefits of tourism. Overall then, this work provides meaningful evidence that community management works according to the hypothesized mechanism to create livelihood opportunities, but not necessarily that these livelihood opportunities ensure local perceptions of equity in job distribution nor that conservation incentives from tourism entail that local livelihood patterns alone shape conservation in the MBR.

One advantage of these studies is the opportunity to compare outcomes of tourism in three different gateway towns to national parks with different trajectories of tourism development and different levels of community agency over tourism decisions. Hence, these cases offered the opportunity to examine if and why community-management more effectively ensures local livelihood benefits from tourism than conventional tourism practices, as theorized (Agrawal & Redford, 2006; Scheyvens, 1999; Schilcher, 2007; Higgins-Desbiolles et al., 2019). For one, community-management, unlike conventional tourism management that potentially preferentially hires already-trained workers (likely as a cost-saving measure), deliberately offers residents meaningful opportunities to earn income by providing the tourism training opportunities that facilitate employment options and which residents identified as instrumental for empowerment in tourism both in the present study and elsewhere in the literature (Gannon, 1994; Park et al., 2018; Gunawijaya & Pratiwi, 2018; Fortanier & van Wijk, 2010; Zielinski et al., 2020; Yanes et al., 2019).

Further, this dissertation suggests that community tourism management achieves a greater local distribution of tourism jobs through the creation of diverse tourism income-earning options that better fit within residents' diversified livelihood portfolios. This finding is significant for two broad reasons. First, it highlights common policy misconceptions about the role of tourism development in poverty relief and conservation, namely that it creates higher paid job opportunities that replace existing livelihood activities and consumptive forest uses (Salafsky & Wollenberg, 2000; Stronza, 2007; Brandt & Buckley, 2018). Secondly, the CBT management emphasis on diversified livelihood opportunities illustrates the need to better understand the broader livelihood context for CBT to be a sustainable livelihood option for local communities (Su et al., 2019; Laeis & Lemke, 2016; Ashley, 2000).

While there is evidence that CBT can contribute to poverty-relief and conservation, tourism projects may mischaracterize tourism as a replacement livelihood activity to reduce forest-land clearing (Nyaupane & Poudel, 2011; Phelan et al., 2020; Stronza, 2007; Romero-Brito et al., 2016; Bocci et al., 2018; Brandt & Buckley, 2018). This work suggests that CBT is but a piece of aggregate strategies that together improve household livelihood outcomes and strengthen community conservation institutions. Tourism remains a portion, albeit potentially a substantial portion, of household income and part of diversified livelihood portfolios. Like other work, this study suggests tourism contributes to modest-income gains at the household level, while it does represent an important, additional source of employment at the community level (Burgos & Mertens, 2017; Zapata et al., 2011; Stronza & Gordillo, 2008). Respondents in Carmelita, Yaxhá and Socotzal perceived additional job opportunities as essential in a context with few options for steady employment, but that tourism was likely not a sufficient source of household income alone.

Therefore, community-tourism enterprises and practitioners promoting CBT development should carefully consider the compatibility of tourism within the existing livelihood context, especially when the diversity of livelihood portfolios, despite being instrumental for livelihood sustainability, are under-represented in the literature (DFID, 1999; Scoones, 1998; Su et al., 2016; Huang et al., 2022). This work highlights the myriad of income-earning sources pursued by rural households in gateway towns to national parks and how individuals balance these activities, whereas previous work divides livelihood activities into broader categories (Zhang et al., 2020; Fortmann et al., 2017; Bocci et al., 2018; Huang et al., 2022). Hence, this work contributes greater detail to understand nuances in household livelihood tradeoffs and decision-making, particularly when the diversity and resilience of rural communities' livelihoods remain understudied (DFID, 1999; Bakkegard et al., 2016; Mohammed et al., 2021). Importantly, this dissertation highlights how seasonality affects the compatibility of tourism and other livelihood activities, which is significant for whether tourism enterprise development delivers local livelihood benefits especially given the highly seasonal nature of tourism and other rural livelihood activities (Bakkegard et al., 2016; Burns, 1993; Huang et al., 2022; Su et al., 2020; Steele, 1995; Hannigan, 1994).

Moreover, the dissertation highlights the centrality of social capital for the success of community-based enterprises like tourism (Emery & Flora, 2006). Social empowerment proved to be the weakest area of empowerment for Carmelita, otherwise the most empowered of the three communities, reinforcing the idea that empowerment in one area in tourism does not guarantee empowerment in others (Eshun & Asiedu, 2021). Indeed, a systematic review of CBT case studies found that authors commonly attributed failed projects to sociocultural criteria (Romero-Brito, et al., 2016). Studies suggest the risk of elite capture in community-based

tourism enterprises or that tourism growth may contribute to wealth disparities and social conflict (Taylor, 2017; Dolezal & Novelli, 2022; Su et al., 2019). Even when community-based tourism enterprises have mechanisms in place to distribute tourism jobs and residents working in tourism are not wealthier than their neighbors who do not work in tourism, as was the case in Carmelita and Yaxhá, community members may still face struggles to achieve a unified vision for enterprise development (Millner et al., 2020).

The diversity of ideas and motivations for community-based tourism development among community members reinforces the caution that tourism planning should not ignore community heterogeneity (Millner et al., 2020; Broesch et al., 2020). Recognizing the historical and social context in which tourism develops is especially relevant when CBT projects are developed for poverty and inequality relief post-conflict (Díaz Rocca & Zielinski, 2022). In the Petén department where the Maya Biosphere Reserve is situated, politicians and non-governmental organizations promoted tourism for development and conservation in the Petén towards the end and in the aftermath of the Guatemalan Civil War (1960-1996), amid the displacement and resettlement of migrants affected by the conflict (Gómez & Méndez, 2007; Devine, 2014). In attempts to resolve agrarian struggles during the war, government policies promoted migration to the Petén, yet preferentially allotted larger tracts of land to the middle and upper-class mestizo population, while Indigenous communities disproportionately suffered casualties during the war and state violence (Gómez & Méndez, 2007; Grandin et al., 2011). This historical landscape results in deeply embedded inequalities and diverse and complicated relationships with the tourism industry as it has both been used as an excuse to dispossess people of their land in the Maya Biosphere Reserve yet forms an important part of the livelihoods of some communities, like those studied here (Devine, 2014, 2016). Development practitioners need to consider the

social context and history in which tourism emerged when deciding how realistic it is for tourism to support sustainable livelihood development.

Moreover, practitioners should also consider how individuals' characteristics shape the viability of tourism as a livelihood option. This heterogeneity has implications regarding who benefits from tourism, perceptions of fairness of community-management, and, in-turn, the sustainability of the enterprise. The three cases studied here demonstrate deliberate interest in advancing opportunities for women's employment in tourism, as observed in other examples of CBT development (LaPan et al., 2021; Zapata et al., 2011; Tran & Walter, 2014). While Chapter 1 found that women were less represented in higher-paid tourism positions in Carmelita, the option to participate in less-time intensive positions that did not travel outside the home represented less conflict with women's subsistence livelihood activities within the home. Across the three communities, interviewees also described tourism as being a more viable employment option for youth and young adults than older individuals, also as observed elsewhere (Stronza, 2007; Dionisio et al., 2019; Godfrey, 1995; Sun et al., 2022). This emphasis on young adult employment opportunities parallels interviewees' future-looking conceptualizations of empowerment. However, it also challenges ideas of tourism as a poverty alleviation tool for the most vulnerable members of a community, when older adults face heightened poverty risks and fewer livelihood options than younger community members (Gorman & Heslop, 2002). Community-based enterprises that diversify kinds of tourism-income earning opportunities therefore have the greatest success in economically empowering a wider sector of the community.

Overall, this dissertation contributes to the literature addressing community-based conservation and development projects as a better alternative to neoliberal economic

development for local empowerment and sustainable livelihoods. While neoliberal tourism economic development models assume that investments in tourism lead to pro-poor outcomes through the development of new job opportunities, these models have increasingly come under fire for narrowly focusing on income as a metric of success rather than empowerment or well-being, neglecting local communities and the environment, exacerbating poverty-aggravating inequalities, ignoring distributional justice in the impacts of tourism development, and resting on unsustainable assumptions promoting infinite economic growth on a planet with finite resources (Bianchi, 2018; Schilcher, 2007; Sen, 2001; Kallis, 2011; Schneider et al., 2010; Higgins-Desbiolles et al., 2019) In this dissertation, I find that CBT management, more so than conventional tourism development, can and does prioritize localized socioeconomic gains. It also contributes to, while not being sufficient for, conservation.

Notably, CBT shares characteristics of both market-led development and rejections of it. At once, community-based tourism development promotes the development of a globally marketable commodity (tourism) for growth in jobs and income, similar to neoliberal economic development paradigms (Schilcher, 2007; Devine, 2017). Moreover, despite the rhetoric of being community-driven, many community-based tourism projects are initiated by non-governmental organizations, reinforcing the idea that these are ‘top-down’ rather than organic sustainable development initiatives (Romero-Brito et al., 2016; Zapata et al., 2011). At the same time, however, the cases presented here, particularly Carmelita, where the community-tourism enterprise developed through both organic community organization in response to economic incentives and NGO-accompaniment, illustrate that the differences between “top-down” and “bottom-up” community-based tourism development are blurred in practice. Additionally, unlike laissez-faire market development or strictly protected areas, community-management represents



a meaningful shift of power to tourism hosting communities to make management decisions (Sofield, 2003; Zielinski et al., 2020; Mtapuri & Giampiccoli, 2019 ). In this way, community-based tourism is situated between the antipodes of green growth and degrowth. This in-between state of community-based tourism reinforces the need for precise definitions of what it means for tourism to be community-based and more explicit acknowledgement of its goals and tradeoffs for community-based conservation and development (Mtapuri & Giampiccoli, 2019; McShane et al., 2011). The combination of the Sustainable Livelihoods (DFID, 1999, Scoones, 1998) and tourism empowerment frameworks (Scheyvens, 1999) advanced in this dissertation provide a methodology for evaluating and comparing outcomes of tourism development in order to identify best management practices and *how* community-management leads to improved local livelihood options from tourism.

Insofar as CBT is promoted as a strategy for sustainable development, its usefulness depends on one's objectives. One analogy is that CBT can be considered a tool like a hammer. In certain cases, CBT may do more harm than good, like trying to use a hammer to perform surgery, as when tourism development undermines social cohesion by contributing to income inequality and competition among households. On the other hand, when applied to precise tasks, like driving in a nail or diversifying income-earning opportunities in rural communities, it can be quite effective. In the third case, it can be helpful but insufficient alone (like trying to build a house with only a hammer). The cases studied here in the Maya Biosphere Reserve fall within this case. CBT substantially contributes to local livelihoods but does not support households alone. Local tourism management strengthens local conservation mechanisms by generating conservation incentives and funding and supporting the formation of organized community

groups, but community members identify important drivers of deforestation outside of local control.

While previous work has characterized the debate over alternative tourism development as one of a predicament vs. panacea (Das & Chatterjee, 2015), I argue that a more helpful lens is to recognize that community-based tourism is not perfect, but better than prevailing conventional tourism development practices at delivering localized sustainable livelihood benefits and promoting community empowerment.

### Practical insights

Beyond the theoretical contributions of what makes community-based successful, this dissertation offers several practical suggestions to strengthen CBT enterprises.

First, as described above, access to training and educational opportunities increases residents' perceived empowerment and options to earn a livelihood in tourism. Across Carmelita, Yaxhá, and Socotzal, access to English language instruction was particularly salient among participants' responses as critical to both individual opportunities to earn income in tourism and beyond as well as for the competitive success of community-based enterprises. Particularly given the importance of the international tourism market in the Petén (CONAP & WCS, 2018; INGUAT, 2018), non-governmental organizations providing technical accompaniment to community-based tourism enterprises should facilitate access to English classes.

Relatedly, respondents noted limited access to formal education more broadly as an impediment to livelihood options in tourism. Whereas community and local guide level authorizations require a sixth and ninth grade education level, respectively, less than half of surveyed household heads in all three communities had completed sixth grade. Tourism

regulating authorities in Guatemala, like INGUAT, should consider alternatives to the education requirements and written guide-authorization exams to make jobs more accessible in Maya Biosphere Reserve communities, particularly when some respondents noted concerns that the authorization process prioritized textbook knowledge over lived experience navigating the forest, potentially neglecting the expertise of the most adept forest guides. More broadly, while interviewees noted access to higher grade levels has improved over time in the communities, respondents still had to travel outside of their hometowns to complete 11<sup>th</sup>-12<sup>th</sup> grade, and, in Yaxhá, 7<sup>th</sup>-9<sup>th</sup>, incurring sometimes prohibitive transit and boarding costs. Increased access to scholarship opportunities and covering students' transportation costs would increase likely increase formal educational attainment in remote communities.

Secondly, this dissertation found that achieving social unity remains among the most pervasive challenges for community-based tourism enterprise development. Enhancing good governance practices within community-based tourism enterprises, particularly by improving organizational transparency through stronger communication channels between community leadership and residents (Laeis & Lemke, 2016; Butler, 2020), would strengthen trust in community management by alleviating some of the reoccurring doubts about the equity of economic benefit distribution in tourism enterprises (Gohori & van der Merwe, 2021; Dangi & Petrick, 2021) and lead to stronger community groups, one of the indicators of social empowerment in tourism (Scheyvens, 1999).

Finally, this work demonstrates the importance of considering households' integrated livelihood portfolios and the broader livelihood context, particularly through the application of the Sustainable Livelihoods Framework (DFID, 1999; Scoones, 1998; Laeis & Lemke, 2016) to understand the extent to which tourism contributes to local livelihoods. The livelihood

seasonality calendars demonstrated in Chapter 2 illustrate an important tool practitioners should apply to address the viability of tourism as a livelihood option in rural communities and whether it would enhance livelihood goals or represent a tradeoff with other livelihood activities.

### Future directions

Future research should investigate the extent to which community-based tourism contributes to household livelihood resilience. Sustainable livelihoods are defined as ones that can “cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base,” making resilience an essential component of livelihood sustainability (Scoones, 1998, p. 5). In the future, I plan to examine the livelihood data I have collected both before and during the pandemic, as well as responses to livelihood survey questions about responses to income shocks to more thoroughly examine the extent to which CBT contributes to households’ adaptive capacity.

Because tourism is an industry particularly susceptible to shocks (Gössling et al., 2020), yet an important part of the livelihood portfolios of many socio-economically marginalized communities in the Global South (Sun et al., 2022), understanding livelihood resilience in tourism hosting communities is essential. Further, livelihood diversification itself is one of the main strategies households use to increase resilience (Scoones, 1998). Mohammed et al. (2021) distinguish between ‘push’ and ‘pull’ motivations for livelihood diversification, where push motivations derive from income shocks and losses of traditional livelihood activities, where pull motivations stem from opportunities to participate in new markets. CBT has characteristics of both push and pull motivations where organically formed community enterprises respond to market opportunities in tourism and where non-governmental organizations promote tourism to

make up for livelihood activities lost in the creation of protected areas for conservation (Zapata et al., 2011; Mtapuri & Giampiccoli, 2016; Decreto Numero 55-2003; Romero-Brito et al., 2016). Future work should address the extent to which adding livelihood activity options, such as through CBT, contributes to the resilience of forest communities' livelihoods particularly within a context of shocks like the COVID-19 pandemic and more frequent climate disasters in the context of Global Warming (Sun et al., 2022; Agrawal & Perrin, 2008; Gentle & Maraseni, 2012).

Finally, this work focused on impacts of CBT development from service providers' (supply side) perspective, while future work should also investigate tourists' behavior purchasing services from community-based enterprises (demand side). In a scoping review, Rasoolimanesh et al. (2020) find that tourists are the least engaged stakeholder group, after residents, businesses, and government about sustainable tourism indicators. This dissertation suggests that CBT has an advantage over tourism development in the private sector in ensuring localized livelihood benefits. Thus, research into how tourists make purchasing decisions about whether to contract services from community-based enterprises has important implications for the economic competitiveness of these enterprises and their greater distribution of localized livelihood benefits. Previous research has investigated factors influencing tourists' environmentally conscious behavior (Li et al., 2020; Orams, 1997; Xu et al., 2020) and willingness to pay for tourism products that support local livelihoods (Saayman et al., 2020; Müller et al., 2020). Future work can move into a more normative realm considering how to encourage tourists to preferentially patron community-based tourism enterprises for greater tourism sustainability.

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## Appendices

### Appendix A: Carmelita community member interview question script

6/25/19

Carmelita Community Tourism

*(English translations added in italics)*

#### Parte I: Preguntas de descripción *(Part I: Description questions)*

Ice-breaker: ¿Cuál es su parte favorita sobre vivir en Carmelita? *(What is your favorite part about living in Carmelita?)*

1. ¿Cuántos años tiene usted? *(How old are you?)*
2. ¿Es socio de la Cooperativa? *(Are you a member of the Cooperative?)*
3. ¿Ocupa algún puesto en la directiva? *(Do you have a position on the directing board?)*
4. ¿Alguna vez ha sido miembro de la directiva? ¿Qué puesto ha ocupado? *(Have you ever had a position on the directing board? What position?)*
5. ¿Asistió a la escuela? ¿Hasta qué grado estudió? *(Did you go to school? Until what grade did you study?)*
6. ¿Cómo se describe a su mismo? ¿A cuál grupo étnico pertenece usted? *Si esta pregunta no es tan clara, puedo clarificar: ¿Es usted ladino, mestizo, indígena...? etc. (How do you describe yourself? To what ethnic group do you belong? If this question is unclear, I can clarify: Are you ladino, mestizo, Indigenous...? etc.)*
7. ¿Cuántas personas viven en su hogar? *(How many people live in your household?)*

#### Parte II: Preguntas sobre el turismo y los impactos *(Part II: Questions about tourism and its impacts)*

1. ¿Cómo participa usted en el turismo en Carmelita? ¿Alguien más de su familia trabaja en el turismo? ¿Qué trabajo realiza? *(How do you participate in tourism in Carmelita? Does a member of your family work in tourism? What job do they do?)*
2. ¿Cómo ha cambiado su vida o la de los miembros de su familia porque participan en turismo? *(How has your life or that of your family members changed because you participate in tourism?)*



3. ¿En su opinión, cuáles han sido los beneficios del turismo del turismo en su vida? ¿Para su familia? ¿Para la comunidad? *(In your opinion, what have been the benefits of tourism for your life? For your family? For the community?)*
4. ¿Cómo usa usted los ingresos ganados por el turismo? *(How do you use the income earned in tourism?)*
5. ¿El turismo en Carmelita ha beneficiado a usted y familia en tema de salud? *(Has tourism in Carmelita benefited you or your family members with respect to health?)*
6. ¿Ha sido beneficiado con capacitaciones por ser parte del proyecto de turismo? *Para pedir más información podría pedir por ejemplos de las capacitaciones en cuales ha participado (Have you been benefited by training opportunities by being part of the tourism project? To ask for more information, I can ask for examples of which training opportunities in which he/she participated)*
7. ¿Cuáles son algunos retos (desafíos/problemas) de tener turismo en Carmelita? ¿En su vida? ¿En la comunidad? *(What are some challenges/problems with having tourism in Carmelita? In your life personally? In the community?)*
8. ¿Cómo puede mejorar el turismo en Carmelita? *(How could tourism in Carmelita be improved?)*
9. ¿Hay barreras para participar en el turismo en Carmelita? ¿Es posible para cualquier persona en Carmelita quien quiere trabajar con turistas hacerlo? *(Are there barriers for participating in tourism in Carmelita? Is it possible for anyone in Carmelita who wants to work with tourists to do so?)*
10. ¿Cuáles son sus opiniones sobre el bosque? ¿Ha cambiado el turismo sus creencias? *(What are your opinions about the forest? Has tourism changed your beliefs?)*
11. ¿Qué tan importante es el bosque para el turismo? *(How important is the forest for tourism?)*
12. ¿Qué tan importante son los sitios arqueológicos para el turismo? *(How important are the archaeological sites for tourism?)*

Parte III: Livelihood Schematic Diagram Activity *(Part III: Livelihood Schematic Diagram Activity)*

*[Voy a intentar construir unos diagramas de las maneras en que apoyan a sus hogares con las participantes. Sin embargo, si las preguntas sobre los diagramas no están claras o la gente no*

tiene interés en hacerlos, usaré solamente las preguntas, sin dibujos/diagramas.] Ahora, aprecio si usted pueda ayudarme en construir un diagrama que demuestra como usted apoya a su hogar y como se gana la vida su familia. El propósito de esta actividad es entender el papel del turismo en la manera en que su hogar se gana la vida. Sin embargo, queríamos entender todas las maneras en que apoyo su hogar, no solo el turismo. *[I am going to attempt to construct diagrams with participants illustrating the manners in which they support their households. However, if the questions about the diagrams are unclear, or people do not have an interest in constructing them, I will only use the questions without the drawings/diagrams.] (Now, I would appreciate it if you could help me construct a diagram showing how you support your household and how your family makes a living. The goal for this activity is to understand the role tourism plays in the ways in which your household makes a living. However, we would like to understand all the ways in which you support your household, not just tourism. )*

1. ¿Cuánto gana usted cada semana/a la quincena por turismo? ¿Cuántas personas de su familia trabajan y en qué actividades? ¿Cuántos ingresos percibe su familia? *(How much do you earn every week/every 15 days in tourism? How many people in your family work and in what activities? How much income does your family earn?)*
2. ¿A parte de trabajar en el turismo, tiene otro ingreso económico? ¿Cuáles son...? *(Apart from working in tourism, do you have other sources of income? What are they...?)*
3. ¿Cómo apoya usted a su hogar aparte del trabajo que tiene ingreso? *Por ejemplo, usted trabaja en la milpa, cuida a los niños, etc...?* ¿Cuáles miembros de su familia participa en cada actividad? *(How do you support your household aside of work that earns an income? For example, do you have a small family farm, care for children, etc...? Which members of your family participate in each activity? )*
4. ¿Cuál manera de apoyar a su hogar es el más importante cree usted? ¿Por qué? ¿La manera más importante de apoyar su hogar depende en la temporada? *(Which do you believe is the most important way you support your household? Why? Does the most important way depend on the season?)*

## Appendix B: Chapter 1 Carmelita codebook

Process of denoting codes: I first created nodes for the 10 guiding questions for the semi-structured interviews and coded responses into categories. These categories could fall under multiple nodes. To define major themes, I looked at NVivo's visual representations of how often a response was coded and among how many files it was coded. Themes also are reoccurring ideas that are significant to the participants themselves and the research questions. Here, a major theme is defined as one mentioned in at least 26 (of 52 files) and a minor theme appears in more than 13 files. I wrote memos in the coding process in Spanish and English but kept the codes and representative quotations in Spanish until manuscript writing for consistency with the language of the interviews.

After this first round of open coding, I read all the examples coded to a node to define that node and create the codebook. Next, I reread through all the transcripts with the codebook and axial coding, also highlighting counterexamples to the nodes. I also found counterexamples using NVivo's text search option and through rereading through the nodes. Counterexamples, (cej) offer a differing viewpoint from the major or minor theme, adding nuance. They are highlighted here in red and written in italics.

**1. Barreras para participar en el turismo:** refiere a razones por los cuales podría ser más difícil por unas personas que otras participar en el turismo en Carmelita. Entrevistados pueden mencionar algo como una barrera o insinuar una con una descripción porque él/ella u otros no están participando.

### Major themes

- no hay: refleja que personas creen que mayormente la oportunidad para participar en el turismo está abierta  
ej.: "No. Para todos es igual la oportunidad"  
*cej: "H: Era difícil involucrarse en el turismo?"*  
*20: Si"*
- formalización: más cumplimiento con las reglas (especialmente lo de carnet), causa que no es tan flexible participar en turismo en la misma manera que antes. Para obtener el

carnet, personas tienen que hacer las capacitaciones, aprobar el examen, y llenar el papeleo para INGUAT, requisitos que no había antes.

ej.: “8: Si yo participé. Hace tres años participé. 0:07:33.3 0:07:39.7 Bueno más antes participamos guiando turista pero en estos años que yo participé como guía de turismo era que no se utilizaban documentos. No pedían por ejemplo este, el carnet, no usábamos.”

*cej: “H; Hay dificultades en involucrarse en el turismo?”*

*15: No creo. Media vez quieren no. Dentro de la organización. Así individualmente no porque está descontrolando, está más controlando la rotación de como dijera yo de control para que todos estemos recibiendo algo” -ve beneficios del nuevo nivel de formalización, en vez de desafíos*

#### Minor themes:

- ser capacitado: tiene que recibir las capacitaciones y tener las habilidades adecuadas para participar en el turismo

ej.: “El único requisito para ingresar era capacitarse en el área que aplicaba; hacia la cocinera en la manipulación de alimentos y era asistente en atención al cliente y si era guía, capacitarse para empezar el curso de guía.”

*cej: “43; Ah, este, los examen lo hacen al final. Todos los examen y allí te dan tu diploma. Y con este diploma puedes ir. Algunas preguntas no más que hacen allá. Pero no es un. Son fáciles. No muy costoso” -percepción que los requisitos para ser capacitado no son difíciles*

- falta de tiempo: por tema de tener otro trabajo (que genera ingreso o sea reproductivo) no queda tiempo para participar en cosas de turismo. Mayormente, en estos casos personas describían que podían participar sino no les quedan tiempo. Por unos, eran porque tenían otro empleo y otros tenían otros compromisos con la casa o la milpa, por ejemplo.

ej.: “Uh, hoy porque a veces tiene mucha trabajo uno y como por los animales uno no puede andar para [?]0:07:20.9 tiene que cuidar sus animalitos”

*cej: “7: No toda la gente se ha estado dedicando porque como te decía la cooperativa tiene varias áreas. Solo cuando es necesario en temporadas altas. Es que se sacan de sus*

*áreas laborales para ir al guiar.”-unos tienen otros empleos fiables y solo participan en turismo cuando hay mucha demanda*

- edad: percepción que hay más oportunidad para jóvenes en el área de turismo. Ven que los jóvenes están en una mejor posición para aprovechar de la capacitación, oportunidades de trabajo, etc. y que es difícil por personas viejas caminar por todo un tour

ej.: “La gente de edad no puede entrar en la época de invierno. En invierno es cuando está lloviendo mucho. La gente de 50 años para arriba no. Es la mayoría gente joven.”

*cej: “9: No, las oportunidades, 0:44:07.9 personas mayores es que como si ellos tienen sus animales nada más. Lo que si tiene es animales. Si tienen animales, vaya y les apunten quien en el comité de turismo y allí los tienen en cuenta en la rotación de los servicios. Y si no, pues”-personas de mayor edad tiene la oportunidad para involucrase en turismo en alquileres, que no requiere tanto esfuerzo físico*

**2. Desafíos:** refiere a desafíos/retos/problemas que existe actualmente con el turismo según los entrevistados u oportunidades que ven para mejorar el turismo, incluyendo cuales cosas opinan que necesitan mejorar

### Major themes

- falta de unión: refiere a la importancia/necesidad o que hay desafíos con lograr trabajar ordenadamente como equipo de turismo según una visión comunitaria
- ej.: 33: “Cuando hay una comunidad dividida es muy difícil. Porque hay unos que están por su propio beneficio. Que están por sus propios intereses. Hay otros que estamos viendo por el beneficio de la comunidad en general. Entonces así va ser difícil ponernos de acuerdo. Hace muy difícil.”

*cej: “50: Pero yo miro que todo está contento trabajando con buen armonía.”- percibiendo que no hay tantas dificultades con lograr la unión*

*cej: “18: Esa era una de la cosas va. Pero no siempre te hablo de la competencia pero la competencia [?]0:21:57.7 porque las competencias son buenas pero cuando están*

*iguales de precios y se manejan el servicio de la gente”-ve diferentes ideas sobre la competencia como una beneficio y no un desafío*

- desigualdades: refiere a que personas son o sienten afuera de la comisión de turismo de la cooperativa o que la cooperativa lo manejan en una manera con preferencias/desigualdades/no dan oportunidad a los que más necesitan  
ej.: “30: Buscan a otras personas. Les dan trabajos a personas que no tienen necesidad de trabajo. Que no tienen hijos que no tienen esposas. Y las personas que tienen necesidad para darles de comer a sus hijos, no los buscan. 0:20:05.7”  
*cej: 29:” uh huh. No pueden estar integrantes de la familia en la misma, la misma comisión. Para que no hay unos malos entendidos entre las comunidades.”-hay mecanismos de gobernanza para prevenir desigualdades*  
*cej: “52: Y ponía un cartel, una invitación en esta tienda en la tienda de abajo, en la oficina de turismo, y algún otro lugar estratégico. Allí está la invitación para los prestadores de servicio o para un grupo en específico. Va. La gente lo que hacía [looking away gesture 10.30.19]. Lo hacía para no lo miraba para no participar en los cursos. Y después cuando haces la pregunta no es que me no me invitado. Me la queda pero la prueba en realidad si no quería. Y lo que si podía ver porque hago mis propios conclusiones y allí cambia la dinámica. La gente no le gusta participar.”-la gente dice que no fueron invitados cuando en realidad es que no quieren participar*
- mejorar el servicio: refiere a la importancia/necesidad de mejorar el servicio. Dos ideas que han sido mencionado frecuentemente con esto ha sido la necesidad para más **capacitaciones** y hay que mejorar la **infraestructura**. Algunas mencionan unas dificultades con lograr estos mejoramientos.
- ej.: “Como uno que les decía era la organización de la gente va. Más capacitación. Para que ellos puedan prestar un mejor servicio. Porque como uno no se deja de aprender cada día tiene que aprender más. Entonces esto es parte. Como la mencionaba anteriormente también en tiempo poder invertir un poco más de la infraestructura.”

*cej: “2: Yo creo que ha reaccionado. Han tenido diferentes tipos de reacciones. Yo creo que la primera ha sido demostrar el interés a capacitarse y prepararse. A mejorar la calidad de servicio. Porque eso ha mejorado mucho en Carmelita. Entonces este es una respuesta positiva. Entonces muchas turistas no se quejan, si no que felicita a la comunidad.”-perspectiva de que ya ha habido mejoramientos en el servicio*

- insuficiente trabajo para todos: refiere de una necesidad para más empleo (o empleo más fluido) en la comunidad y/o refleja la importancia del trabajo de turismo y/o desean que el turismo podría emplear más personas (o emplearlas con más fluidez)

ej: “36: Pues cuando hay así en seguido pues al mes, o antes del mes pero cuando no hay, a veces pasa el mes y no alquilamos nada, no. Porque somos bastante los que estamos apuntadas”

*cej: “51: Ella si va más seguido. Ella sea va como cuando el turismo esta alto, va como 5 veces”-ejemplo de cuando el turismo es muy alto, personas logran ir 5 veces en el mes*

#### Minor themes

- que aumenta el turismo: refleja un deseo que las turistas vinieran/que la cantidad de turismo aumenta y la importancia de la promoción

ej.: “13: Quizás hacia más publicidad y todo eso. Para que viniera más turistas”

*cej: “7: dentro de nosotros. Cómo se llama. También. Tengo otros objetivos. No es masificar el destino. No está entre los meto masificarlos. Sino que mejorar más que todos o que sea un turista o un segmento de turismo consciente y que vaya un poquito más. Pero para mejorar las condiciones en nuestra comunidad.”-no quieren que el turismo aumenta demasiado*

- no hay desafíos con tener turistas: refiere a que personas no han visto cambios negativos por el hecho de tener turismo, particularmente turistas, en la comunidad

ej.: “47: no, no. Aquí no se ha visto eso. Por eso es que las mamás hasta que dejan que los niños andan con los turistas porque aquí no se ha visto algo negativo. No.”

*cej: 44: “Hay un turismo que si causa impacto porque hay unos como no tienen el educación. Porque a veces uno se da cuenta que se poca[?] una galleta, un dulce, o algo, tiran la basura. Por si no, pasa y dejan la basura. O un descuido que uno tenga agarrón la basura y los debajo de la hoja. Si no ellos, como el turista que a veces fuma, tira la colilla y ya se ponerse [?]0:03:47.8 y lo deje allí gente. Ese es un problema.”-unos turistas tiran basura que es un problema*

- intereses grandes: perciben los intereses del gobierno/empresas como amenaza al turismo manejado por la comunidad/a la comunidad

ej.: “1: No hay ahorita trabajando pero si tienen interés. Si interés, digamos. Por ejemplo la Fundación Pacunam ha estado muy interesado en que ellos pueden ser, tener, establecer un hotel grande allí. Y digamos este hotel, quien van a administrar, van a ser ellos dueños. Pues la gente va a trabajar nada más de operadores, de servidores. Entonces, creo que esto es un riesgo. El otro. Bueno si hay. El otro es digamos el turista que se mueve por helicóptero. Que si llega. Llega a Mirador pero no hay un beneficio.”

*cej: “33: Okay. Fíjate que si se ha oído del trencito pero este proyecto la cooperativa lo estuvo apoyando también. O sea ellos quieren construir el tren por medio de la cooperativa. Ahora como no se los dio, y otros lo van a construir, ellos están oponiendo a otro proyecto. Entonces significa que como va a apoyar algo si voy a decir yo que algo no está bien y que va a afectar muchas cosas cuando es algo que yo estubo apoyando yo quiera construirlo. Es ilógico que sea así. Yo pienso que el proyecto, el desarrollo se va a dar.”-perspectiva de que los megaproyectos no son una amenaza en realidad sino personas lo resisten por tema de control*

- Ambientales: refiere ambos a potenciales impactos del turismo y/o la necesidad de manejarlos (especialmente con basura, ruidos y agua), y cosas ambientales que presenta un desafío para el turismo (por ejemplo la deforestación o climas no favorables para hacer trekking)

ej.: “A ese son los intereses del otro desafío sobre la actividad turística puede ser el avance de la frontera agrícola que por los también hay riesgo de que se puede perder también.”



*cej: “10: Porque nos principalmente pues nos tiene beneficio. Y es otra manera de participar en la conservación. Porque ya ahora las personas ya no se dedican a la cazaría o hace algún actividad ilícita sino que también hay otras actividades que es el turismo, otra alternativa. Que es este el turismo.”-unas personas ven que el turismo es bueno para el medioambiente porque incentiva la conservación*

- dificultades con el trabajo mismo: refiere a los partes más costosos del trabajo en turismo, como el esfuerzo físico (especialmente para el arriero), incomodidades en el trabajo de tour (horarios largos, lodo, sancudos) o la relación con las turistas (i.e. ser servicial, platicar con ellos)

ej.: “44: Si, hay otros. Mayormente trabajar el turismo, una de las cosas más complicadas es los compañeros que llevan la mula. Porque a veces en los tiempos como en este época de lluvia, ellos ya [?]0:56:37.6 a los campamentos. Porque se calle una mula, hay que levantarlas. Se caen dos, el que, él solo los tiene que levantar. El problema es que si llega de noche, a eso hora, él le tiene que ir a dar comida a las animales. O tiene que subir a los árboles, y darle comida. Entonces él se lleva a trabajo muy duro. Aparte de los tanto guía como cocinera.”

*cej: “O sea agarrar un trabajo más de aquí no sabe más duro. Y hay gente que están acostumbrando a este ritmo de vida, participar en turismo porque lo que más duro te voy a repetir es la caminada. Y en el tiempo que un poquito duro para el turismo es en la temporada. Porque hay lodo.”-unos no ven que requiere tanto esfuerzo físico para hacer el tour*

**3. opiniones sobre el bosque:** este tema refleja la pregunta abierta de como personas piensen en el bosque (incluyendo términos más amplios como la naturaleza y la biodiversidad) en el área de Carmelita y la reserva de biosfera maya

#### Major themes

- “hay que protegerlo”: habla de una importancia de cuidar el bosque (también los animales que viven allá)

ej.: “10: Que es muy importante para nosotros porque son los que nos dan el aire. Y pues tenemos que conservarlo para que nuestros hijos o nuestros nietos pueden ver los animalitos que viven en ello. Porque si quemamos todo y botamos todo los árboles no vamos a tener aire para sobrevivir.”

*cej: “H: O cuales sus opiniones o que cree usted sobre [el bosque]?”*

*31: Para que puede servir?”-un ejemplo raro de una persona no dando una respuesta sobre la importancia del bosque*

- da vida: explica que el bosque proviene recursos necesarios para la vida

ej.: “44: Es vida para nosotros. Es vida. Porque nosotros sin el bosque no somos nada. Entonces no, no estamos viendo últimamente las contaminaciones de están, que están dando en otros países. Incluso México que es fácil país vecino acá de nosotros. Se está viendo ahora en casos de contaminación por muchos vehículos. Entonces el bosque para nosotros es vida.

*cej: “14: Que significa el bosque para mí? Pues, no sé. El bosque no sé qué decir”-otro ejemplo de una reflexión que no mencionan tanto la importancia del bosque*

#### Minor themes

- el turista viene por el bosque: habla de que la naturaleza es una motivación importante por el turismo y que el turismo está vinculado con el cuidado del bosque

ej.: “8: Destruir? Tallar. Tallar el bosque. Eso sería muy mal. Tallar el bosque. El bosque debería estar intactamente. Para que el turista venga. Porque la turista no va a venir a ver un gran lugar así escampado que no tengo ningún bosque. No. El turista debe de venir a ver bosque que este sanito. Que este bonito. Si”

*cej: “ 2: Un poco difícil. El gran atractivo allí es el Mirador. Es un grande, atractivo, verdad. Creo que después de eso existe el bosque y todo el parte cultural puede ser para ampliar la vista del turista. Pero básicamente llega por Mirador. Con permiso”-unos ven los sitios arqueológicos como el primer atractivo para los turistas*

- saber sobre manejarlo: describe que personas de la comunidad de Carmelita saben cómo proteger y manejar los bosques (y lo han hecho)

ej.: “49: Debería comunitariamente tendríamos muchas ventajas. Uh hay porque por ejemplo hay muchas interesados en apoyar el turismo y las comunidades. Como nosotros por ejemplo que estamos, tenemos más de 100 años de vivir aquí. Algunas veces no te voy a decir que han habido incendios forestales pero si han habido incendios pero por lo menos hemos sabido proteger lo que tenemos. Entonces tenemos mucha ventaja porque más de 100 años de vivir aquí. Entonces el turismo debería ser manejado solo por las personas.”

*cej: “41: Se está desforestando el 100%. Entonces si somos conservacionistas, porque vas a deforestar”-unos que están en contra del aprovechamiento de madera se creen que la concesión está desforestando*

- perspectiva ha cambiado: describen que personas son más conscientes de conservar ahora. Mayormente este tema describe percepciones de la comunidad entera pero algunas hablan de sus propias perspectivas/métodos de sustento. Unos expresan que el cambio en la perspectiva está vinculado con el turismo y/o la oportunidad de trabajo

“ej.: 52: Ah sí. Bueno eso es un ejemplo más claro. Bueno de allí, hay varios nombres. Hay bastante gente que dedica completamente a tema de turismo. Y este prácticamente este ha quitado la presión al bosque”

*cej: “H: El turismo ha cambiado lo que usted piensa sobre el bosque?”*

*51: En parte del bosque, pienso que no mucho, no. Porque se ha conservado mucho aquí, no ha habido incendios para el área de donde el turista pasa. No ha habido incendios. No ha habido nada. Yo pienso que esta igual.”-percepción de que la conservación siempre ha sido importante, y este no ha cambiado*

**4. Cambios en la vida:** refiere a cambios neutrales hasta beneficios en la vida de individuos y familias hasta el nivel de la comunidad vinculados con el turismo

- nuevos estudios: refiere a que a través de turismo hay nuevas oportunidades para estudiar, ambos por las capacitaciones de turismo y la oportunidad para pagar para la educación de los niños

ej.: “En mi vida personal? En mi vida personal pues solamente lo estudio que me han dado. El estudio. Personal. Esto es lo personal que he recibido yo. Las capacitaciones. Informaciones.”

*cej: “13: No. Nunca recibió capacitaciones.”-capacitaciones del turismo no han sido beneficios para todos*

- beneficios económicos para la comunidad: refiere a que los beneficios del turismo son (o deben ser) de la comunidad, que muchos hasta todos de la comunidad perciben un beneficio (como ingresos o trabajos) del turismo

ej.: “14: Pues, como lo vuelvo a repetir los beneficios puede ser el trabajo. Es una manera sienta yo de que benefician a la comunidad porque casi toda la comunidad tiene beneficio de trabajo en el turismo.”

*cej: “Porque el turista te va a pagar, si tu agarraste 10 turistas de a mil quetzales, puedes agarrar 3 o 4 que te van a pagar lo que pagaron lo diez. Ese es una opción. A no dice pero porque tengo trabajo la gente pero yo no estoy trabajando nada más por trabajo. Yo no voy a modelar que nada más por cerrarte.”-unos opinan que la meta del proyecto de turismo debe de ser como un negocio, no solamente de emplear lo más personas posibles*

- el pago: refiere al ingreso que viene del turismo (incluyendo prestaciones y propinas). (Este tema es diferente que ‘beneficios económicos para la comunidad’ porque refiere más a beneficios a nivel de individuos/ a la familia.)

ej.: “11: Pues hasta ahorita pues no. Ahorita tal vez hay algunas otras alternativas de trabaja donde de repente ya no tenga tiempo pero, mi mujer si va a tener pues más el tiempo que sea, que sea una fuente de ingreso más constantemente. Allí pues mejoría más el ingreso a la familia

*cej: "50: Si, si pues. Es poco lo que se gana."-unos perciben beneficios del pago, pero según ellos, no es mucho*

- trabajo: habla de la importancia de la generación de empleo en el turismo  
ej.: "15: Pues te digo antes era el xate. Iba a la montaña un par de meses o xatear de aquí. Todo el día venia esta hora, 4,5 de la tarde para culto y[?] 0:21:09.3. Y así. Pero había jornal de milpa, y ya es cambio. Esta jalando el turismo es un cambio de sistema. No está jalando turismo. Hay gente que hay aquí ya no xatea. Solo prestando los servicios a turista. De asistente, de arriero. Algunas mujeres de cocinera y así"  
ej.: "14: Los beneficios pueden ser el trabajo que nos dan. Ese siento yo que es un beneficio. Es una forma de beneficiarnos porque nos otorgan trabajo."  
*cej: "30: Uh huh. Si. Y como no hay ingreso así de trabajo de turno ni nada, tampoco no le dan trabajo a las personas así como en dicho cooperativa para trabajar madera. No hay trabajo para la gente. Y si hay solo hay para gente escogida"-unos perciben que todavía no hay trabajo en la comunidad hasta un extenso*
- no hay cambio: refleja la perspectiva de que el turismo no causa un gran impacto en la vida ni logra los beneficios/el desarrollo tanto a como las personas quieren  
ej.: "37: Lo mismo, sí. Si porque el turismo ese pues como ese es por rotación, ¿no? Digamos hasta que llega la rotación, vuelve a, vuelvan a trabajar. Porque esa a veces es una vez al mes, le lleva su rotación. Imagínense que ese, este no es un gran beneficio. Pues porque imagínense que si uno no cubre su gasto, uh huh. Pues es una ayuda no pero no al 100%."  
*cej: "49: Si, por ejemplo, por ejemplo en la educación de mis hijos. Yo saque más con puro trabajo de turismo yo y [mi esposa] sacamos adelante dos hijos que estudiaron"- este ejemplo ofrece un cambio tangible que es producto del turismo*

### Minor themes

- sacar adelante: refiere a la percepción que a través del turismo personas pueden lograr

una mejor calidad de vida, ‘sacar adelante’ para ellos o para sus hijos  
 ej.: “Maneja sus centavitos. Los niños antes algunos niños iban descalzitos a la escuela, sin zapato cuando sus zapatitos[?]0:17:48.9, ahora llevan su buen recrea. Llevan sus dineros, 5 que menos lleva son 5. Llevan 8,10, porque los padres están jalando turismo, las mulas, y las mamas. Y todos están involucrados. Pues yo digo que está bien por los niños. Ah ha. Y se ha visto el cambio también porque a uno, cualquiera tiene a su moto. Compra su moto, su carro. Y que trabajan? Turismo. Son guías. Son cocineras. Arrieros.”  
*cej: “8: Bueno. Es que haga cambio no hay cambio demasiado cambio porque con la pobreza que nosotros vivimos aquí no podemos cubrir nuestra necesidad con el poco dinero que nosotros ganamos. Porque solo alcanza para la comida, para vestuario. Ahora para comprar otras cosas que utilizamos no queda porque es muy poco. Es muy poco. Las cosas son carísimas hasta en este lugar nosotros vivimos. Es muy caro vivir. Comprar en la tienda es carísimo. No alcanza el dinero para tantas cosas. Si no ha, no habido mucha diferencia porque trabajo en turismo. Casi lo mismo es. Casi lo mismo como en la vida de antes con la de hoy”-unos no ven tanta oportunidad para sacar adelante porque apenas puede cubrir lo básico*

- infraestructura: describen mejoramientos en la infraestructura de turismo, de la comunidad (como la clínica) y casas de familias vinculado con el turismo
- ej.: “25: Como por ejemplo el hotel. Los comedores por ejemplo. No es algo que la cooperativa perciba de allí pero se me mejoraron estos sitios. Por ejemplo los dos comedores si da cuenta, anteriormente no estaban así los comedores. Por medio de las gestiones que han hecho proyectos han venido a invertir y han logrado a hacer esto. Mejorar la infraestructura en los comedores”
- *cej: “44: Porque a veces en los baños el turismo, el turista se da cuenta que no es muy higiénico.”-varios mencionan que también hay infraestructura que todavía necesita ser mejorado*

5. **usa de ingresos:** describen las respuestas más comunes de como personas usan los ingresos

Minor themes (pero más comunes)

- apoyar a la familia-hijos: significa que comparte los ingresos del turismo con la familia, especialmente con los hijos, y, particularmente en la educación de los niños. También hijos adultos podrían compartir dinero con sus padres

ej.: “30: Yo los uso para darles de comer a los niños. Y para mandarle otro niño, patojo que tenga allá también. Para pagar colegiatura. Para pagar sus gastos de escuela. Todo eso”

*cej: “El que no tiene familia, porque hay muchos jóvenes que no tienen mujer o una esposa o hijos, pues yo miro lamento los muchachos porque no utilizan el dinero para su bienestar. Lo que utilizan solo para tomar. Y en cambio nosotros que tenemos nuestras mujeres, nuestros hijos, distraemos su comita [?] a sus hijos.”-unos ven que otros usan el dinero para tomar en vez de apoyar la familia*

- necesario para la casa: describen usar los ingresos para cubrir necesidades como la comida, vestuario

ej.: “29: Pues en nuestro alimentación. Uh huh, nuestro alimentación, nuestro vestuario. Cualquier otra necesidad que tengamos. De ellos mismo vamos cubriendo la necesidad que hay en nuestro hogar.”

*cej: “16: A veces sí. 0:10:09.2 Si era eso es como un extra si a veces como en un [?] como un entrando sí.”-unos describen que el turismo puede ser un ingreso extra, no solamente para comprar lo necesario*

## 6. **Que tan importante es el bosque:** respuestas a la pregunta que tan importante es el bosque para el turismo

### Major theme

- vienen por conocer el bosque: describen que las turistas aprecian la naturaleza, flora y fauna. La motivación para ver la naturaleza no es la única motivación (la arqueología también es importante) pero es una motivación bien importante

ej.: “Por ejemplo, tenemos identificado que el mercado europeo es fuerte en temas de la naturaleza, la aventura, y la historia. Entonces nos se enfocamos en promover los

destinos como Carmelita-El Mirador por ejemplo en el mercado europeo porque son los que vienen y buscan este tiempo de aventura. Y lo podemos contrastar porque en cada destino turístico existe un registro de visitantes que se hace con CONAP. Y allí en esta boleta el turista colocar que el principio motivo del viaje es aventura, es naturaleza, entonces.”

*cej: see “turista viene por el bosque” node*

7. **importancia de los sitios arqueológicos:** respuestas a la pregunta ¿Que tan importante son los sitios arqueológicos para el turismo?

Minor theme

- conocer sitios: describen que una motivación importante para las turistas es para conocer los sitios arqueológicos

ej.: 38: “No sé. No sé. Tal vez para saber un poco de los mayas que [?]0:28:51.4. Y ver las pirámides. Los que tienen. Tal vez algunos le dan, vienen por conocer no, la famosa pirámide de la Danta que queda más grande. Si.”

*cej: “44: Si, el turismo ahora más diga pongamos aparte lo arqueología, ahora el turismo viene solo por la flora y fauna que hay acá. Entonces países, turistas de países europeos ellos[?]0:10:04.0 y uno no puede ver esto. Y por eso vienen acá a visitarlo. Porque acá ellos vieran, la diversidad de bosque.”-aparte de solo la arqueología mencionan que la naturaleza también atrae turistas*

8. **motivación para participar en el turismo:** no había una respuesta muy importante a esta pregunta sino que la oportunidad de un ingreso/trabajo y la relación con los turistas fue ideas recurrentes en las motivaciones de las personas para participar en el turismo

*Otras motivaciones más únicas eran: por gusta de la arqueología o estar en el bosque e interés de participar en la conservación*

9. **cambios en salud:** refiere a si turismo ha causado beneficios en el tema de salud



- apoyo comunitario: refiere a que la cooperativa da apoyo (normalmente en la forma de dinero o un carro para ir al hospital) en caso de una enfermedad/emergencia. Este apoyo no tiene que ser vinculado con el turismo pero puede ser  
ej: “14: Em, como le decía de que a veces hay necesidad de alguna enfermedad salir al área central. Entonces ellos nos aportan a una pequeña cantidad de 300 quetzales pero no se específicamente si es del turismo o”

*cej:” H: Y el turismo ha tenido impactos en la salud?*

*51: En la que?*

*H: En el tema de salud?*

*51: Um, no, no. 0:25:27.0”-unos no perciben beneficios en la salud*

**10: parte favorito sobre Carmelita;** pregunta para romper el hielo sobre que le gusta más las personas sobre Carmelita. También refiere a cosas distintas y positivas sobre Carmelita

#### Minor theme

- Tranquilidad: refiere a que personas aprecian vivir en Carmelita y cerca del bosque por la tranquilidad y seguridad que existen allá que es diferente que otros partes  
ej.: “31: Pues, bonito porque como todo es este como lo dijera yo que no hay peligro de nada. Que todo está bueno. Estamos tranquilos”  
*cej: “Pero de allí cuando mataron a él, el primer líder.”-aunque mayormente personas perciben una tranquilidad en Carmelita ahora, hay ejemplos de violencia en el pasado*

## Appendix C: Household livelihood questionnaire

### **Presentación de la investigación (Introduction to the research):**

Hola, me llamo Hannah Legatzke (*o nombre de asistente de investigación*), y soy una estudiante de la Universidad de Minnesota en los Estados Unidos (*o nombre de institución del asistente*). En unos días, vendré y le preguntaré si le gustaría participar en una entrevista sobre el turismo y trabajos en su comunidad. El propósito de esta entrevista es aprender la manera en que el turismo puede contribuir a mejorar las maneras en que las personas locales ganan la vida y apoyan a sus hogares. Su opinión es muy valiosa como miembro de la comunidad de (*Carmelita/El Zocotzal/Yaxhá-dependiendo en cual comunidad estoy*), y le agradecería mucho su participación si usted tiene interés. La entrevista incluye 48 preguntas, mayormente de respuestas cortas con unas preguntas abiertas. La conversación debe durar más o menos una hora dependiendo en cuanto tiempo usted necesita para responder a las preguntas.

Estoy presentándome ahora, para conocernos. También esperaba fijar una fecha para reunirnos si usted quiere participar. ¡Muchas gracias!

(Hello, my name is Hannah Legatzke (*or name of research assistant*), and I am a student at the University of Minnesota in the United States (*or name of research assistant's institution*). In a few days, I will stop by and ask you if you would be willing to participate in an interview about tourism and jobs in your community. The goal of this interview is to understand how tourism can better contribute to the ways local people make a living and support their households. Your perspective as a member of the community of (*Carmelita, El Zocotzal, Yaxhá-depending on the community where I am*) is very valuable, and I am very grateful for your participation if you decide to participate. The interview is 48 questions long, most requiring only short-answers, with a few open-ended questions. Our conversation should last between a half hour and an hour depending on how much time you need to reflect on the questions.

I wanted to introduce myself in person. I also hoped that this would be a good moment to let me know if and when you may want me to stop by. Thank you so much!)

**Introducción (Introduction):** *El propósito de esta encuesta es para entender como el turismo puede contribuir en una mejor manera a los sustentos de los residentes de la Reserva de la Biosfera Maya. Entrevistamos a miembros de las comunidades de Uaxactún, Carmelita, El Zocotzal, y Yaxhá porque queremos aprender sobre las experiencias de personas que trabajan y no trabajan en turismo en estos sitios. (The purpose of this survey is to understand how tourism can better contribute to the livelihoods of residents of the Maya Biosphere Reserve. We are interviewing members of the communities of Carmelita, El Zocotzal, and Yaxhá because we want to know about the experiences of people who do and do not work in tourism in these sites.)*

**Instrucciones (Instructions):** *Esta entrevista será realizada en persona. La investigadora va a leer todas las preguntas y llenar las respuestas orales de los participantes. Todas las instrucciones aparecen en letras cursivas. Hay un ejemplo del texto que se puede usar para introducir cada grupo de preguntas. Hay referencias para preguntas adaptadas de encuestas previas.<sup>1-3</sup> (This survey will be administered in person. The surveyor will read the questions aloud and fill in the participants' spoken response. Instructions appear in italics. There is an example introductory text for each set of questions. In this version, an English translation appears in parentheses, although the administered version will only be in Spanish. There are references for questions adapted from previous surveys.<sup>1-3</sup>)*

**Parte I. Participación en Turismo (Participation in tourism).** *Un ejemplo del texto introductorio: "Tenemos interés en aprender sobre cuales oportunidades tiene para participar en turismo en su aldea. Por eso tenemos algunas preguntas sobre su hogar y cuales miembros de su familia participan en actividades de turismo.*

Consideramos su hogar a todas las personas que viven bajo el mismo techo que usted y comparten recursos<sup>1</sup> (como salarios, trabajos, comida).

Participación en turismo es cualquier trabajo, actividad, o empleo que hace directamente (por ejemplo, guiar) o indirectamente (por ejemplo, alquilar equipo de camping) que hace con personas de afuera de la comunidad quienes visitan por vacaciones.” (Example introduction text: “We are interested in learning about what opportunities to participate in tourism exist in your community. Hence, we have some questions about your household and which members participate in tourism. By household, we mean the people who live under the same roof as you and who share resources (like salaries, work, and food). Participation in tourism is any job, activity or employment you have directly (for example as a guide) or indirectly (for example by renting camping equipment) that you do with people who visit from outside the community for vacation.”)

1a. ¿Quiénes son los miembros de su hogar?<sup>1</sup>

Nota: Verificar la definición de hogar en las Guías Técnicas

(Who are the members of your household?)

Note: Recall the definition of households in the Technical Guidelines)

| <b>1. ¿Cómo se llaman los miembros de su hogar? (Nombre apellido)</b><br><b>(What are the names of the members of your household?)</b><br><b>(Name last name)</b> | <b>2. ¿Cuál es la relación o parentesco de cada miembro con usted?</b><br><b>(What is the relationship of each household member to you?)</b> | <b>3. Cuantos años tiene... [diga usted o el nombre del miembro del hogar]? (ej. 18)</b><br><b>(How old is/are [say 'you' or the name of the household member]?)</b><br><b>(i.e. 18)</b> | <b>4. Sexo</b><br><b>(0=masculino</b><br><b>1=femenino</b><br><b>2=otro)</b><br><b>(Sex (0=male</b><br><b>1=female</b><br><b>2=other))</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                   | participante<br>(participant)                                                                                                                |                                                                                                                                                                                          |                                                                                                                                            |
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1b. ¿Tiene usted otros hijos que no viven en esta casa?: Sí/No Si sí,

(Do you have other children who do not live in this house? Yes/No. If yes,

| <b>1. ¿Cómo se llaman los hijos?</b><br><b>(Nombre apellido)</b><br><b>(What are your children's names?) (Name last name)</b> | <b>2. Cuantos años tiene... [diga el nombre del hijo]? (ej. 18)</b><br><b>How old is... [say the child's name]? (i.e. 18)</b> | <b>3. Sexo (0=masculino 1=femenino 2=otro)</b><br><b>(Sex (0=male 1=female 2=other))</b> |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
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2<sup>4</sup>. ¿Durante los últimos 12 meses, ha recibido usted personalmente un ingreso del turismo? (In the past 12 months have you personally received an income from tourism?): Sí (Yes)/No

3a<sup>a</sup>. ¿Antes de la pandemia, usted recibía un ingreso del turismo? (Before the pandemic, would you receive and income from tourism?): Sí (Yes)/No

3b. ¿Cuándo participó usted en turismo? (When did you participate in tourism?)

3c. ¿Por qué dejó de participar? (Why did you stop participating?)

4. Si contesta 'sí' a la pregunta 3, ¿trabajó más, menos o aproximadamente la misma cantidad de días en turismo durante los últimos 12 meses en comparación con antes de la pandemia? (If answered 'yes' to question 3, Did you work more, fewer, or approximately the same number of days in tourism in the past 12 months as compared to before the pandemic?)

Si contesta que ha trabajado 'más', ¿cuántos días más trabajó en turismo este año? (If answered 'more', how many more days did you work in tourism this year?)

- Trabajó dos veces o más la cantidad de días este año comparado con antes de la

pandemia (You worked twice the number of days or more this year as compared to before the pandemic)

- Trabajó más días este año, pero menos que el doble de días en comparación con antes de la pandemia (You worked more days this year, but less than twice the number of days you worked before the pandemic)

Si contesta que ha trabajado aproximadamente la misma cantidad de días en turismo este año (If they answer that they have worked approximately the same number of days in tourism this year):

- Trabajó aproximadamente la misma cantidad de días este año en comparación con antes de la pandemia (You worked approximately the same number of days this year compared to before the pandemic)

Si contesta que ha trabajado 'menos', ¿cuántos días menos trabajó en turismo este año? (If they answer that they have worked fewer days, how many fewer days did you work in tourism this year?)

- Trabajó menos días este año, pero más que la mitad de los días que trabajaba en comparación con antes de la pandemia (You worked fewer days this year, but more than half the days you worked before the pandemic)
- Trabajó en turismo, pero la mitad o menos que la mitad de los días este año que trabajaba antes de la pandemia (You worked in tourism this year, but half or less than half the days you would work compared to before the pandemic)
- No trabajó ningún día en turismo durante el año pasado (You did not work any days in

<sup>4</sup> Si el participante indica que está involucrado en el turismo, pregunta si tendría interés en tener una conversación un poco más detallada sobre su trabajo y que hace. Podrían realizar la conversación ahora con esta entrevista o más tarde. Si un familiar participa en turismo, pregunta si él o ella tendría interés en una entrevista más tarde. (If the participant indicates that she/he is involved in tourism, ask if she/he would be interested in having a slightly more detailed conversation about her/his work and what she/he does. You can have this conversation now or later. If a family member participates in tourism, ask if he or she would be interested in interviewing later.)

tourism during the past year)

5ª. ¿Durante los últimos 12 meses, por lo menos un miembro de su hogar (aparte de usted) ha recibido un ingreso del turismo? (In the past year has at least one other member of your family (other than yourself) received an income from tourism?): Sí (Yes)/No

6ª. ¿Antes de la pandemia, por lo menos un miembro de su hogar (aparte de usted) recibía un ingreso del turismo? (Before the pandemic, would at least one other member of your family (other than yourself) receive an income from tourism?): Sí (Yes) /No

7. Omita si la respuesta a la pregunta 2 o 3 es 'No'. ¿En cuales sectores o servicios turísticos participa usted? ¿Participa en...? Lea todas las respuestas. Por favor selecciona todos los que aplican. (Skip if answer to 2 is 'No'. In which tourism sectors do you participate? Do you participate in...? Read all the options. Please select all that apply).

- Hospedaje (Lodging)
- Restaurante/comedor (Restaurant/cafeteria)
- Prestador de servicios turísticos: guía, cocinera, arriero, asistente de guía, etc. (Tourism service provider: guide, cook, muleteer, guide assistant, etc.)
- Agencia de viaje (Travel agency)
- Transporte turístico (Tourist transportation)
- Artesanías (Handicrafts)
- Lavandería (Laundry)
- Lancharo (Boating)
- Renta de equipo/animales (Animal/equipment rental)
- Museo privado (Private museum)
- Administración (Administration)
- Otros: (Por favor especifique) (Other: (Please specify) \_\_\_\_\_)

8. Omita si la respuesta a la pregunta 4 o 5 es 'No'. ¿En cuáles sectores o servicios turísticos participa(n) el/los otro(s) miembro(s) de su hogar? ¿Participa(n)

en...? Lea todas las respuestas. Por favor selecciona todos los que aplican. (Skip if answer to 3 is 'No'. In which tourism sectors do(es) the other member(s) of your household participate? Do(es) he/she/they participate in...? Read all the responses. Please select all that apply).

- Hospedaje (Lodging)
- Restaurante/comedor (Restaurant/cafeteria)
- Prestador de servicios turísticos: guía, cocinera, arriero, asistente de guía, etc. (Tourism service provider: guide, cook, muleteer, guide assistant, etc.)
- Agencia de viaje (Travel agency)
- Transporte turístico (Tourist transportation)
- Artesanías (Handicrafts)
- Lavandería (Laundry)
- Lancharo (Boating)
- Renta de equipo/animales (Animal/equipment rental)
- Museo privado (Private museum)
- Administración (Administration)
- Otros: (Por favor especifique) (Other: (Please specify) \_\_\_\_\_)

9. Omita si la respuesta a la pregunta 2 o 3 es 'No'. Por favor identifique la(s) categoría(s) que describe a su empleador en el trabajo de turismo. Por favor seleccione todos los que aplican: (Skip if answer to 2 or 3 is 'No'. Please identify the category that describes your tourism employer. Please select all that apply:)

- Una cooperativa comunitaria (A community cooperative)
- Una empresa privada (A private company)
- El gobierno de Guatemala (The government of Guatemala)
- Una Organización No-Gubernamental ONG (A non-governmental organization)
- Soy dueño de mi propia empresa (I am the owner of my own business)

No sabe (Do not know)

Otros: (Por favor especifique) (Other: (Please specify)) \_\_\_\_\_

10. Omita si la respuesta a la pregunta 2 es 'No'.  
¿En el mes pasado, cuántos días trabajó usted en turismo? (Omit if the answer to 2 is 'No.' In the past month, how many days did you work in tourism?)

- Ningún día (No days)
- Medio día (A half day)
- Un día (A day)
- Entre 2 y 7 días (Between 2 and 7 days)
- Entre 8 y 15 días (Between 8 and 15 days)
- Entre 15 y 21 días (Between 15 and 21 days)
- Más de 21 días (More than 21 days)

11. ¿En su opinión, ¿qué tan difícil o fácil es encontrar trabajo en turismo en su comunidad? ¿Por qué? (How difficult or easy is it to find work in tourism? Why?)

12a. Omita si la respuesta a la pregunta 2 es 'sí', ¿tendría interés en participar/trabajar en turismo? ¿Por qué sí o no? (Omit if the answer to question 2 is 'yes'. Would you be interested in participating in tourism? Why or why not?)

12b. ¿Por cuáles razones no participa usted en turismo? (For what reasons do you not participate in tourism?)

13. ¿Participa en una(s) organización(es)/asociación(es) vinculado con el turismo? (Do you participate in an organization/association related to tourism?)

- Sí . Si sí, ¿cuál(es)? (Yes. If yes, which?): \_\_\_\_\_
- No

14. Omita si la respuesta a pregunta 13 es 'No'. ¿En los últimos 12 meses, han asistido una asamblea para esta(s) organización(es)/asociación(es)? (Omit if the answer to 13 is 'No.' In the past 12 months, have you assisted an assembly as part of this organization/association?): Sí (Yes)/No

15. Omita si la respuesta a pregunta 13 es 'No.' En los últimos 12 meses, ¿han votado en alguna elección como miembro de esta(s) organización(es)/asociación(es)? (Omit if the answer to 13 is 'No.' In the past 12 months, have you voted on a decision as part of this organization/association?): Sí (Yes)/No

16. Aparte de usted, ¿participa otro miembro de su hogar en alguna(s) organización(es)/asociación(es) vinculado con el turismo? (Does another member of your household apart from yourself participate in an organization/association related to tourism?)

- Sí . Si sí, ¿quién? (Yes. If yes, who?): \_\_\_\_\_
- Si sí, ¿cuál? (If yes, which?): \_\_\_\_\_
- No

17. ¿Hasta qué punto tiene usted voz y voto en decisiones sobre el manejo de turismo en su comunidad? (To what extent do you have a say in tourism management decisions in your community?)

18. ¿Tiene usted surgencias para turismo en su comunidad? (Do you have suggestions for tourism in your community)

**Parte II. Sustentos (Livelihoods):** *Un ejemplo del texto introductorio: “Tenemos unas preguntas sobre cómo usted apoya su hogar. Estas preguntas son para entender cómo personas en su aldea se ganan la vida y cuál es el rol o no de turismo en apoyar a los hogares. Primero, tengo unas preguntas sobre trabajos que tienen salario” (Sample introduction text: “We have a few questions about how you support your household. These questions are to understand how people in your town make a living and the role tourism does or does not play in supporting households. First, we have a few questions about salaried work.”)*

19a. ¿Algún miembro de su hogar ha recibido salario en cualquier tipo de trabajo durante los últimos 12 meses?<sup>1,2</sup>  
(Has any member of your household had paid work in any type of work in the past year?)

Sí (Yes)/No

19b. Si indican que un miembro del hogar ha recibido salario durante el año pasado. ¿De ser así, quien en su hogar ha recibido un salario y en cuales tipos de actividades?<sup>1</sup>

*Nota: Cada persona puede incluirse en la lista más de una vez para diferentes trabajos. (Has any member of the household earned an income in any type of work over the past year? If yes, who, and in one type of activity? Note: One person can be listed more than once for different jobs.)*

| 1. ¿Quién? Miembro del hogar (nombre) (Who? Household member (name)) | 2. ¿Qué tipo de trabajo? (What type of work?) | 3. ¿Recibe un salario diario (D), semanal (S), quincenal (Q), mensual (M), o por cada servicio/producto (por ejemplo, por tortilla hecha)? (Do they receive a daily (D), weekly (S), biweekly (Q), or monthly (M) salary or are paid per service/product (for example, for tortilla made)? | 4. ¿Cuál era el salario D/S/Q/M o por servicio? (What was the daily (or monthly or service) wage rate?) | 5. ¿Cuánto tiempo trabajó (o cuántos servicios realizó) en los últimos 12 meses? (How much time did you work (or how many services did you perform) in the last 12 months?) (D/S/Q/M/servicio/producto) | 6. ¿Trabajó (realizó) más, menos o aproximadamente la misma cantidad de días (servicios) en este año (durante los últimos 12 meses) en comparación con antes de la pandemia? Si contestan ‘ más ’ o ‘ menos ’, lee la próxima pregunta y las opciones correspondientes. ¿Cuántos días (o servicios/productos) más o menos trabajó (realizó) en este año? *1 (Did you work more, less, or approximately the same number of days during the past 12 months as compared to before the pandemic? If they answer more, or less, read the following question and the corresponding options. How many more or fewer days did you work this year?) |
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\*1 *Codigos: Si ha trabajado más: 1. Trabajó (realizó) dos veces la cantidad de días (productos/servicios) o más este año en comparación con antes de la pandemia (You worked twice the number of days (produced twice the number of products) this year as compared to before the pandemic); 2. Trabajó (realizó) más días (productos/servicios) este año, pero menos que el doble la cantidad de días (productos/servicios) en comparación con antes de la pandemia (You worked more days this year, but less than twice the number of days you worked before the pandemic); Si ha trabajado aproximadamente la misma: 3. Trabajó (realizó) aproximadamente la misma cantidad de días (productos/servicios) este año en comparación con antes de la pandemia (You worked approximately the same number of days this year compared to before the pandemic); Si ha trabajado menos: 4. Trabajó (realizó) menos días (productos/servicios) este año, pero más que la mitad de los días (productos/servicios) que trabajaba (realizaba) en comparación con antes de la pandemia (You worked fewer days this year, but more than half the days you worked before the pandemic); 5. Este año trabajó (realizó) la mitad o menos que la mitad de días (productos/servicios) que hubieses trabajado antes de la pandemia (You worked half or less than half the days you would work compared to before the pandemic)*

20. ¿En qué meses del año pasado trabaja cada miembro del hogar en estos trabajos? Por favor indica si hay meses altas y bajas de trabajo en estas actividades, y si, si, cuales. *Pregunta por cada trabajo mencionado en la pregunta anterior. (In which months of the past year did each member of the household work in these jobs? Ask for each job mentioned in the previous question).*

| ¿Quién? Miembro del hogar (nombre)<br>(Who? Household member (name)) | ¿Cuál tipo de trabajo?<br>(What type of work?) | ¿Trabaja en este trabajo en enero?<br>(Do you work in this job in January?) (1=sí; 0=no) (1=yes, 0=no) | ¿En febrero? (In February?) | ¿Marzo? (March?) | ¿Abril? (April?) | ¿Mayo? (May) | ¿Junio? (June?) | ¿Julio? (July?) | ¿Agosto? (August?) | ¿Septiembre? (September?) | ¿Octubre? (October?) | ¿Noviembre? (November?) | ¿Diciembre? (December?) |
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Sustentos (continuación) *Livelihoods (continued): Un ejemplo del texto introductorio: “Ahora tengo unas preguntas sobre las tierras y propiedades que tiene su hogar.” (Example introductory text: “Now, we have a few questions about what lands and properties your household has.)*



21. Para comunidades en la zona de amortiguamiento: ¿Usted tiene tierras? (Por ejemplo: cultivos, bosques, etc. No incluimos propiedades como casas en esta pregunta ni tierras que usted alquila). (For communities in the buffer zone: Do you have land? (For example, cropland, forests, etc. We will not include properties like houses in this question nor land that is rented). Para la comunidad de Carmelita y Uaxactún solamente: ¿Usted tiene tierras afuera de Carmelita?<sup>2</sup> (For the community of Carmelita only: Do you have land outside of Carmelita?)<sup>2</sup>

- Sí, dentro de esta comunidad. Omita esta respuesta para Carmelita. (Yes, within this community. Omit this response for Carmelita.)
- Sí, fuera de esta comunidad, pero en el mismo municipio. (Yes, outside this community, but in the same municipality.)
- Sí, fuera del municipio pero en el Petén (Yes, outside this municipality but in the Petén)
- Sí, fuera del Petén, pero en Guatemala (Yes, outside of the Petén, but in Guatemala)
- Sí, fuera de Guatemala (Yes, outside of Guatemala)
- No

22. Si contesta que tiene tierras, ¿cuántas manzanas de tierra tiene?<sup>2</sup>: \_\_\_\_\_ manzanas (How many manzanas of land do you have?)

23. Si contesta que tiene tierras, ¿cuáles son los usos de las tierras? Por favor seleccione todos los que apliquen (If they answer that they have or use and area. What are the uses of the area? Please select all that apply.)

- [ ] Para cultivos (For crops)
- [ ] Un área para caballos/mulas (An area for horses/mules)
- [ ] Para ganadería (For ranching)
- [ ] Para bosque natural (Natural forest)
- [ ] Para bosque manejado (Managed forest)
- [ ] Residencial (Residential)
- [ ] Para apicultura (For beekeeping)
- [ ] Otros (Por favor, especifique): \_\_\_\_\_ (Other (Please specify):)

24a. ¿Aparte de tierras, su hogar tiene otras propiedades? (Apart from land, does your household hold other properties?): Sí (Yes)/No

24b. Si la respuesta a la pregunta 24a es 'Sí'. Leeré unas categorías de propiedades. Por favor indicar cuales y cuantos en cada categoría que actualmente tiene. (Only if the answer to question 24a is 'Yes.' I will read a few categories of properties. Please indicate which and how many you own.)

| <b>Propiedad (Property)</b> | <b>¿Cuántos? (How many?)</b> |
|-----------------------------|------------------------------|
| Casa (House)                |                              |
| Tienda (Store)              |                              |

|                                                                                |  |
|--------------------------------------------------------------------------------|--|
| Comedor ( <i>Restaurant</i> )                                                  |  |
| Otros ( <i>Por favor especifique</i> ):<br>( <i>Others (Please specify):</i> ) |  |

25. Ahora me gustaría preguntarle sobre algunos artículos que hay en su casa. En su casa hay... (*lea los artículos y marque todos los que posean*)<sup>2,3</sup> (*Now I would like to ask about assets your household has. Do you have a...?*)

- (a) \_\_\_ Teléfono celular (*Cell phone*)
- (b) \_\_\_ Televisión (*Television*)
- (c) \_\_\_ Refrigerador (*Refrigerator*)
- (d) \_\_\_ Planta eléctrica (*Generator*)
- (e) \_\_\_ Servicio eléctrico (*Electricity*)
- (f) \_\_\_ Motocicleta (*Motorcycle*)
- (g) \_\_\_ Carro (*Car*)
- (h) \_\_\_ Tractor
- (i) \_\_\_ Panel Solar (*Solar panel*)

26. Si vive en Carmelita. ¿Su hogar tiene un área asignada por la cooperativa (como una milpa, por ejemplo)? (*If the participant lives in Carmelita. Does your household have an area assigned by the cooperative (like a milpa, for example)?*)

- Sí (*Yes*)
- No, pero usamos un área de familia o vecinos (*No, but we use a family or neighbor's area*)
- No

27. Si contesta que tiene o usa un área. ¿Cuáles son los usos del área? Por favor, seleccione todos los que

*apliquen (If they answer that they have or use an area. What are the uses of the area? Please select all that apply.)*

- [ ] Para cultivos (*For crops*)
- [ ] Un área para caballos/mulas (*An area for horses/mules*)
- [ ] Para ganadería (*For ranching*)
- [ ] Para bosque natural (*Natural forest*)
- [ ] Para apicultura (*For beekeeping*)
- [ ] Otros (*Por favor especifique*): \_\_\_\_\_  
(*Other (Please specify):*)

28. Aparte del área agrícola, ¿tiene otro(s) pedacito(s) de tierra que usa(n) para cultivos? (*Apart from the agricultural area, do you have other small areas of land that you use for crops?*): Sí (*Yes*)/no

¿Dónde está(n) esta(s) tierra(s)? (*Where is/are this/these land(s)?*):

Sustentos (continuación) (Livelihoods (continued)): Un ejemplo del texto introductorio: "Estas preguntas tiene que ver con cómo quizás apoya a su hogar en cultivación. (*Example introductory text: "These questions have to do with how you may support your household through cultivation.*)

29. Solo si responden que usan tierra para cultivos. ¿Cuáles son los cultivos y qué cantidades son para autoconsumo y para venta?<sup>1-3</sup> Lea las preguntas de izquierda a derecha, repitiéndolas para cada cultivo. Solo haga las preguntas 5-7 si indican que venden el cultivo. (*Only if they respond that they have had a harvest. If so, what crops and how frequently do you sell them? Read the questions from left to repeat, repeating them for each crop. Only ask questions 5-7 if they indicate that they sell the crop.*)



- Vendieron menos en los últimos 12 meses, pero más que la mitad de lo que vendían antes de la pandemia (You sold less in the past 12 months, but more than half of what you sold before the pandemic)
- Vendieron la mitad o menos que la mitad de lo que vendían antes de la pandemia (You sold half or less than half of what you sold before the pandemic)
- No vendieron ningún cultivo durante los últimos 12 meses (You did not sell any crops in the past 12 months)

31. ¿Su hogar trabajó más, menos o aproximadamente la misma cantidad de días en cultivación durante los últimos 12 meses en comparación con antes de la pandemia? (In the past 12 months, has your household worked more, less, or approximately the same number of days in cultivation as compared to before the pandemic?)

*Si contesta que ha trabajado 'más', ¿cuántos días más trabajó en cultivación durante los últimos 12 meses? (If they answer 'more', how many more days did you work in the last 12 months?)*

- Trabajó dos veces o más la cantidad de días durante los últimos 12 meses comparado con antes de la pandemia (You worked twice as many days or more in the past 12 months as compared to before the pandemic)
- Trabajó más días durante los últimos 12 meses, pero menos que el doble de días en comparación con antes de la pandemia (You worked more days in the past 12 months, but less than double what you worked before the pandemic)

*Si contesta que ha trabajado aproximadamente la misma cantidad de días en agricultura este año (If they indicate that they worked approximately the same amount this year):*

- Trabajó aproximadamente la misma cantidad de días durante los últimos 12 meses en comparación con antes de la pandemia (You worked approximately the same number of days in the past 12 months as you did before the pandemic)

*Si contesta que ha trabajado 'menos', ¿cuántos días menos trabajó en cultivación durante los últimos 12 meses? (If they answer that they have worked 'less', how many fewer days did you work in the last 12 months?)*

- Trabajó menos días durante los últimos 12 meses, pero más que la mitad de los días que trabajaba en comparación con antes de la pandemia (You worked fewer days in the past 12 months, but more than half of what you worked before the pandemic)
- Trabajó en cultivación, pero la mitad o menos que la mitad de los días durante los últimos 12 meses que trabajaba antes de la pandemia (You worked in cultivation in the past 12 months, but half, or less than half the number of days that you worked before the pandemic)
- No trabajó ningún día en agricultura durante el año pasado (You did not work any days in agriculture during the past year)

32. Solo si responden que trabajan en cultivación en unos meses en la pregunta 29. ¿En promedio, cuantas horas al día trabaja su hogar en cultivación?: \_\_\_\_\_ horas/día (Only if they responded that they worked some months in cultivation in question 29. On average, how many hours a day does your household work in cultivation? (Hours/day). )

¿En promedio, cuantos días a la semana trabaja su hogar en cultivación?: \_\_\_\_\_ días (On average, how many hours a day does your household work in cultivation (days).

Sustentos (continuación) (**Livelihoods (continued)**): *Un ejemplo del texto introductorio: “Ahora quisiera hablar sobre los recursos forestales que quizás usa para apoyar a su hogar.” (Example introductory text: “Now, I wished to speak about forest resources that you may use to support your household.”)*

33. Si recoge recursos del bosque, ¿cuáles recursos recoge su hogar? *En esta pregunta consideramos el bosque un área forestal de por lo menos media manzana en tamaño. Por favor, seleccione todos los que apliquen e indique si son para uso doméstico, venta o ambos. (If you collect resources from the forest, what resources does your household collect? In this question, we consider the forest to be any forested area at least a half manzana in size. Please select all that apply and indicate if you collect them for domestic use, for sale, or for both.)*

| 1. Recurso (Resource)                                           | 2. ¿Son para uso doméstico (incluyendo regalos) o para venta (incl. intercambio o trueque) o ambos? Si indica que los venden, asegúrese que estén listados en la tabla de trabajos que ganan salario (pregunta 18). ( Are they for domestic use (incl. gifts), sale (incl. exchange/bartering) or both? If they indicate that they are for sale, make sure they are listed among the jobs that earn income (question 18).) | 3. ¿Quién en el hogar lo recoge? (Who in the household collects it?) | 4. ¿En cuales meses del año lo recoge? (In what months of the year do you collect it?) | 5. ¿En promedio, cuantas horas al día la colecta este recurso? (On average, how many hours per day do you spend collecting it?) | 6. ¿En promedio, cuantos días a la semana colecta este recurso? (On average, how many days a week do you collect this resource?) |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Leña (Firewood)                        |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |
| <input type="checkbox"/> Frutas (Fruit)                         |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |
| <input type="checkbox"/> Ramón ( <i>Brosimum alicastrum</i> )   |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |
| <input type="checkbox"/> Chicle (Gum)                           |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |
| <input type="checkbox"/> Pimienta (Allspice)                    |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |
| <input type="checkbox"/> Xate ( <i>Chamaedorea sp.</i> )        |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |
| <input type="checkbox"/> Forraje (Fodder)                       |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |
| <input type="checkbox"/> Pescado (Fish)                         |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |
| <input type="checkbox"/> Animales cazados (Hunted animals)      |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |
| <input type="checkbox"/> Otros: (Por favor especifique) (Other: |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                        |                                                                                                                                 |                                                                                                                                  |

|                         |  |  |  |  |  |
|-------------------------|--|--|--|--|--|
| <i>(Please specify)</i> |  |  |  |  |  |
| [ ] Ningunos<br>(None)  |  |  |  |  |  |

**Sustentos (continuación) (Livelihoods (continued)):** *Un ejemplo del texto introductorio: “Ahora hay unas preguntas sobre como usted apoya a su hogar con un negocio, si tiene.” (Example introductory text: “Now, there are a few questions about how you support your household with a business, if you have one.)*

34a. ¿Usted tiene algún tipo de negocio?¹: Sí (Yes)/No

34b. *Solo si responde ‘sí’ a la pregunta 37a. Nota: Si el hogar está involucrado en varios negocios, debe llenar una columna para cada negocio. (Only if respondent says ‘yes’ to 34a. Note: If the household is involved in several different types of business, you should fill in one column for each business.)*

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Negocio<br>(Business) 1 | Negocio<br>(Business) 2 | Negocio<br>(Business) 3 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------|
| 1. ¿De ser así, cuál es su negocio?¹ (If so, what is your business?)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                         |                         |
| 2. En promedio para el año pasado, ¿cuánto fueron las ganancias al mes? <i>Lee las opciones y escribe el número elegido en el cuadro correspondiente al negocio.¹ (On average for the past year, what was the monthly profit?) (Read the options and put the selected number in the box corresponding to the business.)</i><br>1. Menos que 1000 Q (<1000 Q)<br>2. 1001-3000 Q<br>3. 3001-5000 Q<br>4. 5001-7000 Q<br>5. 7001-9000 Q<br>6. 9001-11000 Q<br>7. 11001-13000 Q<br>8. 13001-15000 Q<br>9. Más que 15001 Q (> 15001 Q)                                                                                                                                                                                                                                                                              |                         |                         |                         |
| 3. En promedio, ¿cuánto más o menos dinero mensual ingresó a su hogar a través de este negocio en comparación con antes que la pandemia? <i>Lee las opciones y escribe el número elegido en el cuadro correspondiente al negocio. (How much more or less did your household earn monthly in this business compared to before the pandemic? Read the options and write the number in the box corresponding to the business)</i><br>1. Ganaron dos veces o más lo que ganaban antes de la pandemia (You earned twice or more what you earned before the pandemic)<br>2. Ganaron más el año pasado, pero menos que el doble de lo que ganaban antes de la pandemia (You earned more in the past year, but less than twice what you earned before the pandemic)<br>3. Ganaron aproximadamente lo mismo que ganaban |                         |                         |                         |

|                                                                                                                                                                                |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| antes de la pandemia (You earned approximately the same amount as you earned before the pandemic)                                                                              |  |  |  |
| 4. Ganaron menos este año, pero más que la mitad de lo que ganaban antes de la pandemia (You earned less this year, but more than half of what you earned before the pandemic) |  |  |  |
| 5. Ganaron la mitad o menos que la mitad de lo que ganaban antes de la pandemia (You earned half or less than half of what you earned before the pandemic)                     |  |  |  |

Sustentos (continuación) (Livelihoods (continued)): Un ejemplo del texto introductorio: “En estas últimas preguntas sobre los sustentos, tengo interés en conocer como su hogar se apoya con animales criados en casa”. (Example introductory text: “In these last questions about livelihoods, I am interested in how you may support your household with animals raised at home.”)

35a. ¿Su hogar tiene animales adultos? (Does your household have adult animals?): Sí (Yes)/No

35b ¿De ser así, ¿cuántos animales adultos tiene en su hogar en la actualidad y quien los cuidan?<sup>1</sup> Leeré unos tipos de animales. Por favor seleccione todas las que aplican. (If so, what is the number of adult animals your household has now? I will read a few kinds of animals. Please select all that apply.)

|                                     | 1. ¿Cuántos tienen? (How many do you have?) | 2. ¿Son para uso doméstico (incl. regalos) o para venta (incl. intercambio o trueque) o ambos? (Are they for domestic use (incl. gifts) or for sale (incl. exchange/bartering) or both?) | 3. Si los venden, ¿cuántos han vendido durante los últimos 12 meses? (If sold, how many did you sell in the last 12 months?) | 4. Si los venden, ¿cuál es el precio por animal? (If sold, what is the price per animal?) | 5. ¿Quién los cuida? (Who takes care of them?) |
|-------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------|
| Ganado Bovino (Cattle)              |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Cabras (Goats)                      |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Ovejas (Sheep)                      |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Cerdos (Pigs)                       |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Burros/Mulas (Donkeys/Mules)        |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Patos (Ducks)                       |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Gallinas (Chickens)                 |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Caballos (Horses)                   |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Conejos (Sheep)                     |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Pavos (chumpes/chompipes) (Turkeys) |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |
| Perros (Dogs)                       |                                             |                                                                                                                                                                                          |                                                                                                                              |                                                                                           |                                                |

|                                      |  |  |  |  |  |
|--------------------------------------|--|--|--|--|--|
| Gatos (Cats)                         |  |  |  |  |  |
| Otros, especificar: (Other, specify) |  |  |  |  |  |

36. Solo si responden que tienen animales en pregunta 35. ¿Cuáles servicios y productos de animales produce su hogar?<sup>1</sup> Leeré unos tipos de productos. Por favor seleccione todas las que aplican. Lea las preguntas de la izquierda hasta el derecho, repitiéndolos por cada producto. Solo pregunta #4-5 si indican que lo venden. (Only if respondent indicates that they have animals. What animal products and services does your household produce? I will read a few types of products. Please select all that apply. Read the questions from left to right, repeating for each product. Only ask 4-5 if they indicate that they sell the product.)

| <b>Producto/servicio (Product/service)</b>         | <b>1. ¿Lo produjeron para uso doméstico (incl. regalos), para la venta (incl. intercambio o trueque) o ambos? (Did you produce it for domestic use (incl. gifts)? Or to be sold (incl. barter)?) or both?)</b> | <b>2. Si alguno fue vendido, ¿cuántos vendieron en los últimos 12 meses? (If any were sold, how many did you sell in the past 12 months?)</b> | <b>3. ¿Cuál era la unidad? (What was the unit?)</b> | <b>4. ¿Si lo venden algunos, ¿Cuánto les pagaron por cada unidad (repita la unidad)?</b> | <b>5. ¿Su hogar vendió más, menos, o aproximadamente lo mismo de este producto durante el último año en comparación con antes de la pandemia? Si contestan 'más' o 'menos', lee la próxima pregunta y las opciones correspondientes ¿Cuánto más o menos de este producto vendió su hogar? *<sup>3</sup> (How much more or less of this product did your household sell this year compared to before the pandemic?)</b> |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [ ] Carne (Meat)                                   |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Pollo (Chicken)                                |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Leche (Milk)                                   |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Mantequilla (Butter)                           |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Queso (Cheese)                                 |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Manteca (Lard)                                 |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Huevos (Eggs)                                  |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Cuero y pieles (Leather and skins)             |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Lana (Wool)                                    |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Estiércol (Manure)                             |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Energía eólica (molinos) (Wind energy (mills)) |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [ ] Colmenas (Hives)                               |                                                                                                                                                                                                                |                                                                                                                                               |                                                     |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |



|                                                                                |  |  |  |  |  |
|--------------------------------------------------------------------------------|--|--|--|--|--|
| <input type="checkbox"/> Miel (Honey)                                          |  |  |  |  |  |
| <input type="checkbox"/> Leche cortada (Buttermilk)                            |  |  |  |  |  |
| <input type="checkbox"/> Jabón (Soap)                                          |  |  |  |  |  |
| <input type="checkbox"/> Otros, por favor especifique: (Other, please specify) |  |  |  |  |  |
| <input type="checkbox"/> Ningunos (None)                                       |  |  |  |  |  |

\*<sup>3</sup>Codigos: Si vendió más: 1. Vendieron el doble o más de lo que vendían antes que la pandemia (You sold twice or more what you would sell before the pandemic); 2. Vendieron más el año pasado, pero menos que el doble de lo que vendían antes de la pandemia (2. You sold more in the past year, but less than twice what you would sell before the pandemic); Si vendió lo mismo: 3. Vendieron aproximadamente lo mismo que vendían antes de la pandemia (You sold about the same amount as you would sell before the pandemic); Si vendió menos: 4. Vendieron menos este año, pero más que la mitad de lo que vendían antes de la pandemia (You earned less this year, but more than half of what you earned before the pandemic); 5. Vendieron la mitad o menos que la mitad de lo que vendían antes de la pandemia (You sold half or less than half of what you would sell before the pandemic)

37. Por favor, indique cualquiera otra fuente de ingreso que el hogar haya recibido durante los últimos 12 meses.<sup>1</sup> Por ejemplo... Lea los tipos de ingreso. (Please list any other income that the household has received during the past 12 months. For example,...Read the types of income)

| Tipo de ingreso (Type of income)                                                                                                                                                                                                                         | Cantidad total recibida durante los últimos 12 meses (Amount received in the past 12 months) | ¿Su hogar recibió más, menos o aproximadamente lo mismo durante el último año en comparación con lo recibido antes de la pandemia? ¿Cuánto más o menos recibió su hogar durante el último año? * <sup>3</sup> (How much more or less did your household receive in the past year as compared to before the pandemic?) * <sup>3</sup> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Remesas (Remittances)                                                                                                                                                                                                                                 |                                                                                              |                                                                                                                                                                                                                                                                                                                                      |
| 2. Apoyo del gobierno, ONG, organización o similar (Government support, NGOs, organization or similar)                                                                                                                                                   |                                                                                              |                                                                                                                                                                                                                                                                                                                                      |
| 3. Regalos/apoyo de amigos y parientes (Gifts/support from friends/family)                                                                                                                                                                               |                                                                                              |                                                                                                                                                                                                                                                                                                                                      |
| 4. Pensión (Pensión)                                                                                                                                                                                                                                     |                                                                                              |                                                                                                                                                                                                                                                                                                                                      |
| 5. Pago por servicios ambientales del bosque (Payment for ecosystem services from the forest)                                                                                                                                                            |                                                                                              |                                                                                                                                                                                                                                                                                                                                      |
| 6. Pago por arrendamiento de la tierra (si es en especie, indicar el equivalente en efectivo)<br>¿Cuántos manzanas de tierra?:<br>_____manzanas<br>(Payment for renting out land (if in kind, state the equivalent in cash). How many manzanas of land?) |                                                                                              |                                                                                                                                                                                                                                                                                                                                      |

|                                                                                                                       |  |  |
|-----------------------------------------------------------------------------------------------------------------------|--|--|
|                                                                                                                       |  |  |
| 7. Compensación de empresa maderera o minera (o similar) (Compensation from a logging or mining company (or similar)) |  |  |
| 8. Pagos del grupo de usuario forestal (Payments from forest user group)                                              |  |  |
| 9. Otro, por favor especifique: (Other, please specify)                                                               |  |  |

*\*3 Codigos: Si recibió más: 1. Recibió el doble o más lo que recibía antes de la pandemia (You received twice what you would receive before the pandemic); 2. Recibió más el año pasado, pero menos que el doble lo que recibía antes de la pandemia (2. You received more in the past year, but less than twice what you receive before the pandemic); Si recibió lo mismo: 3. Recibió aproximadamente lo mismo que recibía antes de la pandemia (You received about the same amount as you would receive before the pandemic); Si recibió menos: 4. Recibió menos este año, pero más que la mitad de lo que recibía antes de la pandemia (You received less this year, but more than half of what you would receive before the pandemic); 5. Recibió la mitad o menos que la mitad de lo que recibía antes de la pandemia (You recieved half or less than half of what you would receive before the pandemic)*

38. ¿Cuáles son los gastos recurrentes de su hogar? *Los gastos recurrentes son los que su hogar tiene que pagar varias veces al año o por varios años, como la comida o la renta. Por favor apunte todos e indica los gastos mayores. (What are your reoccurring household expenditures. Reoccurring expenditures are ones that your household has to pay various times a year or for various years, like food or rent. Please list all expenditures and indicate the largest.)*

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39. ¿Cuáles opciones para generar ingresos (ganar efectivo) tiene su hogar en case de una emergencia financiera? *Por favor apunte todas. ¿Y en al año pasado cuantos meses su hogar tuvieron que usar una de estas opciones? (What options does your household have to earn cash in the event of a financial emergency. Please list all. In what months during the past year did you have to use each option?)*

| Opción para generar ingreso (Option to generate income) | ¿Cuáles meses que tuvieron que usarla en al año pasado? (ejemplo enero y marzo) (In what month during the past year did you use that option (example: January and March)) |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                         |                                                                                                                                                                           |
|                                                         |                                                                                                                                                                           |
|                                                         |                                                                                                                                                                           |
|                                                         |                                                                                                                                                                           |
|                                                         |                                                                                                                                                                           |

40a. ¿Cuáles es la mayor fuente de ingresos económicos para su hogar? (What is the most important source of income for your household?)

40b. Para los que reciben ingreso en turismo. ¿Qué tan importante es el turismo como fuente de ingreso económico para su hogar? (For those who receive an income in tourism, how important is tourism as a source of income for your household?)

41. Hemos hablado de diferentes fuentes de trabajo que usan para apoyar su hogar. ¿Cómo balancean estas fuentes de trabajo? ¿Cómo balancean el tiempo? Y, para los que trabajan en turismo: ¿Cómo balancea participar en turismo con sus otros deberes? (We have discussed different jobs you do to support your household. How do you balance these jobs? How do you balance your time? And, for those who work in tourism: How do you balance participating in tourism with your other obligations?)

42. ¿Cuánto ha impactado la pandemia los trabajos de su hogar? ¿Cómo adaptó a la pandemia? (How has the pandemic impacted your household's jobs? How did you adapt to the pandemic?)

**Parte IV: Datos Demográficos (Demographic data):** Un ejemplo del texto introductorio: “Por último, tenemos unas preguntas sobre usted. Estas preguntas son para entender, en general, quien hizo la entrevista. Vamos a mantener sus respuestas confidenciales. (Example introductory text: “Last, we have a few questions about you. These questions are to understand, in general, who did the interview. We will keep your responses confidential.

43. ¿Es socio de una(s) cooperativa(s) u organización(es) comunitaria o forestal? (Are you a member of a community forest organization?) : Sí (Yes)/no

¿Si sí, cuál es? (If yes, which?): \_\_\_\_\_

44. Si la respuesta a 46 es 'sí', ¿Si es socio de la cooperativa, ha sido miembro de la junta directiva? (If the answer to 46 is 'yes', If you have been a member of a cooperative, have you been a member of the directing board?): Sí (Yes) /no

Si sí, ¿cuál era su posición? (If yes, what was your position?): \_\_\_\_\_

45. ¿Dónde nació usted? (Where were you born?):

46. ¿De dónde es su familia? (Where is your family from?)

47. ¿Cuáles idiomas habla usted? (What languages do you speak?):

48. Por favor escoja el grado más alto que completó en la escuela<sup>2</sup> (Please select your highest completed grade in school)

- Ningún grado (No grade)
- Alguna educación formal pero menos que la primaria (Some formal education but less than first grade)
- Primero (First)
- Segundo (Second)
- Tercero (Third)
- Cuarto (Fourth)
- Quinto (Fifth)
- Sexto (Sixth)
- Primero básico (First secondary)
- Segundo básico (Second secondary)
- Tercero básico (Third secondary)
- Diversificado (High school)
- Estudios más avanzados que diversificado, pero menos de la universidad (Studies more advanced than high school, but less than university)
- Universitario o más alto (University or higher)
- Prefiere no responder (Prefer not to respond)

### **Referencias (References)**

<sup>1</sup> Indica pregunta copiada o adaptado de (Indicates question copied or adapted from):

CIFOR. 2008. PEN questionnaire, version 4. Bogor, Indonesia: Center for International Forestry Research (CIFOR)

<sup>2</sup> Indica pregunta copiada o adaptado de (Indicates question copied or adapted from):

Fortmann, L. K. (2014). *Assessing Factors that Contribute to Reduced Deforestation and Successful Community Forest Management in Guatemala's Maya Biosphere Reserve*. The Ohio State University.

<sup>3</sup> Indica pregunta copiada o adaptado de (Indicates question copied or adapted from):

Bocci, C. (2019). *The Economic Effects of Community Forest Management in the Maya Biosphere Reserve*. The Ohio State University.

## Appendix D: Chapters 2 and 3 key informant semi-structured interview questions

### Preguntas generales sobre el turismo (General questions about tourism)

1. ¿Podría describir su trabajo, por favor? ¿Cómo está involucrado en el turismo? (Can you please describe your job? How are you involved in tourism?)
2. ¿Podría contarme sobre la historia del turismo en la comunidad por favor? ¿Cómo empezó el turismo? (Can you please tell me about the history of tourism in your community? How did tourism get started?)
3. ¿Qué recursos tiene la comunidad para desarrollar el turismo? (What resources does your community have for tourism development?)
4. ¿Cuáles son las metas para el turismo en Carmelita/El Socotzal/Yaxhá? (What are the goals for tourism in Carmelita/El Socotzal/Yaxhá?)
5. ¿Cómo cree usted que el turismo en Carmelita/El Socotzal/Yaxhá es diferente al turismo realizado en otras comunidades de la Reserva de la Biosfera Maya? (How do you think tourism in Carmelita/El Socotzal/Yaxhá is different than in other communities in the Maya Biosphere Reserve?)
6. ¿Cómo ha cambiado el turismo en la comunidad a causa de la pandemia? (How has tourism in the community changed due to the pandemic?)
7. ¿Para ustedes, que significa empoderamiento en el contexto de turismo? (For you, what does empowerment mean in a tourism context?)
8. ¿De qué manera el turismo en su comunidad contribuye al empoderamiento o no? (In what ways does tourism in your community contribute to empowerment or not?)

### Preguntas sobre la organización de turismo (Questions about the organization of tourism)

9. ¿Cómo participan los miembros de la comunidad en turismo? ¿Cuántas personas en la comunidad participan en el turismo? (How do members of the community participate in tourism? How many people in the community participate?)
  - a. ¿Participan las mujeres en turismo? ¿Como? (Do women participate in tourism? How?)
10. ¿Cómo está organizado el turismo en Carmelita/El Socotzal/Yaxhá? (How is tourism organized in Carmelita/El Socotzal/Yaxhá?)
  - a. ¿Podría describir el mapeo de actores, por favor? ¿Quiénes son las personas interesadas en turismo en Carmelita/El Socotzal/Yaxhá? (Can you please describe the stakeholder network? Who is interested in tourism in Carmelita/El Socotzal/Yaxhá?)
  - b. ¿Cuáles son sus papeles y responsabilidades? ¿Cómo participan en la toma de decisiones sobre el turismo? (What are their roles and responsibilities? How do they participate in decision-making in tourism?)
  - c. ¿Cómo están relacionados? ¿Cómo interactúan con otros actores en el turismo? (How are these actors related? How do they interact?)

- d. ¿Hay diferentes niveles de manejo? ¿Quiénes participan en cada nivel? (Are there different levels of management? Who participates in each level?)
- 11. ¿Cuáles son los marcos normativos y legales del turismo en la comunidad? (What are the regulations and rules about tourism in the community?)
- 12. ¿Cuáles son los documentos más importantes que describen el marco normativo y legal? (What are the most important documents describing these rules and regulations?)
- 13. ¿Es difícil solicitar representación de los diferentes grupos en la comunidad en la toma de decisiones sobre el manejo de turismo? (Is it difficult to ensure representation of different community groups in tourism decision making?)
  - a. ¿Cómo incluyen las perspectivas de estos grupos? (How do you include these groups' perspectives?)
- 14. ¿Hay quejas o desacuerdos sobre turismo en la comunidad? ¿Cómo los resuelven? (Are there complaints or disagreements about tourism in the community? How do you resolve these?)

Preguntas sobre turismo y el medioambiente (Questions about tourism and the environment)

- 15. ¿Cómo gobiernan el uso de los recursos naturales en la comunidad? (How do you govern the use of natural resources in the community?)
- 16. ¿Cómo manejan la basura/desechos en los sitios turísticos? (How do you manage garbage/waste in tourism sites?)
- 17. ¿Hay un área de conservación en la comunidad? ¿Cómo lo manejan? (Is there a conservation area in the community? How do you manage it?)
- 18. ¿Tener turistas en Carmelita/El Zocotzal/Yaxhá presiona los recursos naturales? (Does having tourists in Carmelita/El Socotzal/Yaxhá put pressure on natural resources?)
- 19. ¿Están relacionados el turismo y el medioambiente? ¿Cómo? (How is the tourism business going?)

Preguntas sobre el parte económico (Questions about the economic part)

- 20. ¿Cómo va el negocio de turismo en la comunidad? (How is the tourism business going?)
  - a. ¿De dónde vienen los fondos para invertir en el turismo? (Where do you obtain funds to invest in tourism?)
    - i. ¿Han recibido subvenciones? ¿De qué fuentes? (Have you received grants? From what sources?)
  - b. ¿Hay ganancias en las iniciativas? (Do the initiatives have a profit?)
  - c. ¿Cómo iban los negocios antes de que apareciera la pandemia? (How was business going before the pandemic?)
  - d. ¿En que invierten las ganancias de turismo? (Where are tourism profits invested?)

Preguntas sobre impactos de turismo en la comunidad (Questions about the impacts of tourism in the community)

- 21. ¿Ha habido beneficios económicos de turismo en su comunidad? ¿Si, sí, cuáles? (Have there been economic benefits of tourism in the community? If so, what kind?)

22. ¿Como se distribuyen las ganancias del turismo entre miembros de la comunidad? ¿Entre los que trabajan en el turismo y para la comunidad en general? (How do you divide tourism earnings among community members? Between individuals who work in tourism and the community in general?)
23. ¿Cómo cambia el turismo la manera en que las personas en Carmelita/El Socotzal/Yaxhá se ganan la vida? (How has tourism changed the manner in which people in Carmelita/El Socotzal/Yaxhá make a living?)
  - a. ¿Qué tan importante es el turismo comparado con otras fuentes de sustento/ingreso? (How important is tourism compared to other livelihood activities/income sources?)
  - b. ¿Ha cambiado las maneras o formas en que los miembros de la comunidad se ganan la vida a causa del COVID? (Have the ways in which people make a living in the community changed because of COVID?)
24. ¿Cómo ha impactado el turismo la convivencia en Carmelita/El Zocotzal/Yaxhá? (How has tourism changed the sense of community in Carmelita/El Socotzal/Yaxhá?)
25. ¿Han visto cambios sociales que tienen que ver con el turismo? Por favor descríbanlos. (Have you seen social changes that have to do with tourism? Please describe them.)
  - a. ¿Ha habido cambios no esperados en la comunidad a causa del turismo? ¿Cuáles? (Have there been unexpected changes in the community because of tourism? What kind?)

Preguntas sobre desafíos con el turismo (Questions about challenges for tourism)

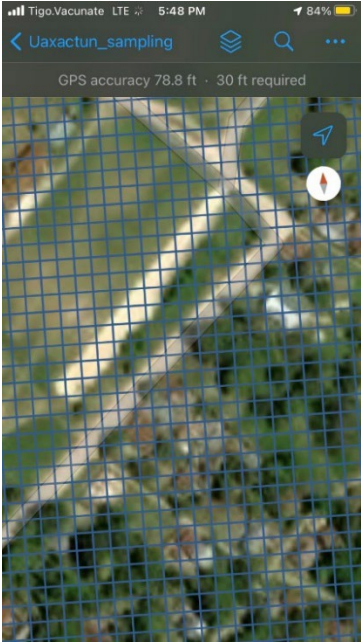
26. ¿Si hay, qué cambios le gustaría ver en el manejo del turismo en Carmelita/El Socotzal/Yaxhá? (If there are any, what changes would you like to see in tourism management in Carmelita/El Socotzal/Yaxhá?)
  - a. ¿Cuáles son los desafíos para el desarrollo del turismo en Carmelita/El Socotzal/Yaxhá? (What are the challenges for tourism development in Carmelita/El Socotzal/Yaxhá?)
27. ¿Cuáles son los desafíos al tener turismo en la comunidad? (What are the challenges associated with having tourism in the community?)



## Appendix E: Chapters 2 and 3 tourism service provider interview questions

1. Podría describir su trabajo por favor. ¿Cuál es la parte que más le gusta? ¿Cuál es la parte más difícil? (Can you please describe your job? What is your favorite part? What is the most difficult part?)
2. ¿Cómo interactúa usted con los turistas? (How do you interact with tourists?)
3. ¿Qué responsabilidades tiene usted en su trabajo con el turismo? (What responsibilities do you have in your work in tourism?)
4. ¿Cómo decide involucrarse en turismo? ¿Qué tiene que hacer para involucrarse en turismo? (How did you decide to get involved in tourism? What did you have to do to get involved?)
5. ¿Qué tiene que hacer para prepararse para este trabajo? (What did you have to do to prepare for this job?)
6. ¿Quiénes toman las decisiones en el manejo del turismo? (Who makes decisions about tourism management?)
7. Si tiene preguntas o preocupaciones sobre el turismo en su comunidad, ¿cómo los resuelve? (If you have questions or concerns about tourism in your community, how do you address them?)
8. ¿Están relacionados el turismo y el medioambiente? ¿Cómo? (Are tourism and the environment related? How?)

Appendix F: Sample of aerial footage and sampling squares generated for random sampling of households in Uaxactún



## Appendix G: Table of barriers identified for tourism involvement in chapter 2

### Clases de barreras:

|                          | falta de capacitación, conocimiento, o educación                                                                                                                                                                                                         | falta de oportunidad | falta de capacidad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | manejo no favorable a participación | falta de tiempo                                                                                     | falta de interés en el trabajo (esp. en el contexto de dificultades con el trabajo mismo) |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Code                     | Definition                                                                                                                                                                                                                                               |                      | Example                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     | Insurmountable?                                                                                     |                                                                                           |
| capacitación             | Hay que recibir capacitaciones para poder participar en turismo                                                                                                                                                                                          |                      | 125 [00:44:40] Usted sabe que todo eso así es. Usted quiere entrar ahí tiene que capacitarse va. No solo va a llegar hoy y mañana y empieza                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | No necesariamente, sino depende en la oportunidad/frecuencia de capacitaciones                      |                                                                                           |
| inglés                   | Refiere a que hay que (o es recomendable) hablar otro idioma, específicamente el inglés para trabajar en turismo. Personas también mencionaron italiano, francés, y alemán como otros idiomas que servirían                                              |                      | 168: Pues difícil como no sé, es, no se sabe hablar inglés y eso es necesario que lo sepa, porque aquí lo que es aquí en la entrada a veces necesitan vendedores, que vendan guías o todo eso, pero tienen que saber inglés un poco. Y estas patojas [] no salen a vender como no saben. Han venido oportunidades a veces, pero como no saben inglés.                                                                                                                                                                                                                                                                                                                            |                                     | No. Sino puede costar mucho para aprender otro idioma                                               |                                                                                           |
| poco trabajo en turismo  | Que no hay suficiente empleo en turismo para emplear todos los que tendrían interés o están intentando participar. Varios mencionaron la pandemia y las bajadas en turismo como una razón este es el caso. También, las temporadas explican las bajadas. |                      | 50: Sí ha bajado por enfermedad. No hay negocio. No venta. No hay trabajo para el guía. No hay trabajo para asistente, para cocinera, para los arrieros. Para mulas. Para todo. Tal vez al largo plazo llega [], ya compone otra vez ¿no?, pero si este no se quita, siempre el turismo va a estar detenido.<br>194: Es que es difícil. En este caso, en Tikal si es difícil como de allí podemos que nosotros ya al personal ya lo tienen. Ya está el personal completo. En el caso ese sería solamente cuando algunos, algún, algún trabajador tal vez fallece y entonces queda esa plaza disponible. O como también que de que algunos renuncien que hay una plaza disponible |                                     | Generalmente si, los individuos no tanto controlan el nivel de la demanda para servicios turísticos |                                                                                           |
| no hay tanto oportunidad | Describe que realmente no hay oferta turística que crearon trabajos en turismo ni oportunidad local para participar en turismo o que ya hay otras ofertas afuera de oportunidades en la comunidad                                                        |                      | 176 [00:23:52] No es que como la aldea es la más alejada. Y no tiene ningún atractivo para que el turismo baje. No, no baja el turismo, no se paran                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | Sí, generalmente es fuera del control del individuo                                                 |                                                                                           |

|                                  |                                                                                                                                                                                               |                                                                                                                                                                                                                                                                 |                                                                                                                                           |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| layoffs                          | Refiere a que despidieron a trabajadores de turismo, especialmente durante la pandemia                                                                                                        | 233 [00:02:00] O sea, es que fue por cával, en esos días de la pandemia como hubo bajo, despidieron a bastantes [00:02:07] personas.                                                                                                                            | Es fuera del control del individuo sino no necesariamente precluye encontrar nuevo trabajo en turismo                                     |
| physical barrier                 | Que cuesta físicamente participar en turismo                                                                                                                                                  | 36[00:04:18] Yo que no, yo en realidad no puedo. Porque. [00:04:23] Estoy impedida en mis caminos. [00:04:27] Así que sería difícil andar con turistas. [00:04:31] Eso sí, sería difícil. No que no lo estuviera casi si no yo estuviera trabajando ahí también | Puede causar que participar en turismo cuesta hasta sea imposible                                                                         |
| edad                             | Refiere que es más difícil para personas de mayor edad encontrar trabajar en turismo. Esto puede ser por dificultades físicas o que hay preferencia general para emplear personas más jóvenes | 179[00:06:10] Pues como aquí es muy difícil. Cómo le digo, por lo mismo, porque uno a veces busca trabajo y le dice a uno ¿cuántos años tienen de edad? Quieren más joven.                                                                                      | Puede ser                                                                                                                                 |
| poco educación formal            | Describe que hay unos requisitos o expectativas de niveles de educación para poder acceder trabajo en turismo                                                                                 | 142 [00:07:44] Para ser guía comentarios sólo tiene que tener 6°. H [00:07:48] Ok. 142 [00:07:49] Solo 6.º Y para ser guía local o general ya tiene que ser de recibir, tiene que tener un grado.                                                               | Generalmente si, aunque aplica más para participar como guía turístico donde los requisitos de educación son más altos                    |
| no le gusta cambios en el manejo | Refiere a que decepciona participar en turismo por desacuerdos/diferencias de opinión en cosas relacionados al manejo de turismo                                                              | 61 [00:09:02] De la cooperativa incluso no me gustó porque mire que el manejo que llevaba la junta directiva no me gustó. No me gustaba. Pues decidí renunciar. Solo fui socio nueve años y ahí me quedé solo con el trabajito de alquilar de mulas.            | No necesariamente, sino algunas personas decidieron excluirlos de participar en turismo por estar tan frustrados con el sistema de manejo |
| no quiere involucrarte           | Describe que algunas personas no tienen interés en participar en turismo                                                                                                                      | 87 [00:06:14] Si puedo seguir trabajando, pero me siento más tranquilo así. Estar sin un sin compromiso de trabajo y de guía pues                                                                                                                               | Si                                                                                                                                        |
| dejado afuera                    | Veán que hay posibilidades de trabajar en turismo sino sienten excluidos                                                                                                                      | Si. Trabajo no hay. No hay trabajo aquí solo cuando lo logran ocupar un par de días allí y de allí sin trabajo. Es un grupito que tiene trabajo allí. Los demás solo miramos.                                                                                   | ?                                                                                                                                         |

|                                 |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| regulaciones                    | Hay (nuevas) normativos que complica el proceso de ingresar a trabajos turísticos                                                                                                      | 167[00:18:13] Viera que más antes se vendía más porque había más entrada de turismo. 167 [00:18:18] Que. [00:18:19] Uno de, ya que supuestamente yo. 167 [00:18:21] Antes. [00:18:23] Ganaba más y vendía más porque yo, podía entrar al parque. Antes era libre para entrar al parque. Podía ir uno a vender sus cosas que cocinaba. Que uno preparaba ahí una parte, madrugaba al parque a vender y ya, media vez ya 167[00:18:41] Porque que tiene que pedir un permiso, uno por parte del licenciado y para que pueda uno entrar al parque puede vender su producto. [00:18:49] Y eso fue una baja para todos los vendedores de aquí el aldea. Nosotras estaba viendo pasar los ambulantes, ambulantes le llaman los [] que andan canteando[] | No necesariamente pero si puede presentar barrera difícil                          |
| otro trabajo                    | No participan en turismo porque tiene otro trabajo que no le permite                                                                                                                   | H: ¿y usted tendría interés en participar en turismo?<br>72: Yo de repente no hay trabajo. Lo que esta estoy apuntado como arriero anteriormente pero come siempre suben los trabajos aquí no puede. Yo no he ido                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Depende del horario del otro trabajo                                               |
| falta de apoyo de instituciones | Describe la creencia que oportunidades de participar en turismo requiere apoyo institucional que al momento está ausente                                                               | Entonces el turismo cuando anteriormente venía, pero ahora no. No podemos porque se ha terminado o no pasan, porque ese epidemia que hay nos ha retrasado mucho. Nosotros no tenemos apoyo de ninguna institución. Ambos, ahorita tenemos hacia la Muni. El gobierno nos ha dejado tirado, como que nosotros no valemos. Y entonces nosotros si al día que haiga una destrucción que nos apoyara, pues aquí es un área que bastante se pasa de turismo, solo pasamos a turismo y solo miramos y no podemos decirle.                                                                                                                                                                                                                               | ?                                                                                  |
| hay que invertir                | Describe que hay que pagar cuotas, invertir en cosas (por ejemplo mulas) para alquiler o dedicar tiempo a estudiar o el proceso de postular a trabajos para involucrarse en el turismo | 126 [00:10:34] Esa fue la cuota de ingreso. También nos dijeron que si queríamos ser parte de después de eso, a la cooperativa que se llama COINCY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Generalmente no, pero puede haber obstáculo significativo para personas más pobres |
| pandemia                        | Que no participan en turismo por restricciones debido a la pandemia o por miedo de la enfermedad                                                                                       | 176 [00:24:54] Todavía está muy descontrolada la situación. Todo llegó a estar en verde. Primero quedó libre de problemas de departamento y cuando pasó ahorita de la Navidad y todo y las fiestas se volvió a poner otra vez en rojo. Entonces no se ha descontrol, no se ha arreglado y, sigue igual, se han muerto mucha gente y no tiene chiste descuidarse. Uno no sabe cómo está la jugada y así como dicen ya nosotros nos vacunamos las tres, pero no por eso nos vamos a descuidar. Mucha más [] nuestra organismo[]. Porque como somos sólo los dos, no                                                                                                                                                                                 | Sí, generalmente es fuera del control del individuo                                |

|                         |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                         |                                                                                                                                                                                                                   | salimos de un solo aquí sale a comprar las tortillas. Y cositas acá sí. Cuando hay que salir al Remate, voy en la moto y compro lo que hay. Llevo mi mascarilla. Voy [] y me vengo. No andamos teniendo mucha relación con mucha gente.                                                                                                                                                                                                     |                                                                                                       |
| cuidar sus tierras      | Que no pueden dejar a sus tierras, especialmente por la milpa                                                                                                                                                     | 38: Por la milpa . No lo puede dejar solo los animales ya comen.                                                                                                                                                                                                                                                                                                                                                                            | Sí, si no hay alguien más para cuidarlas                                                              |
| unfamiliarity           | No saben cuáles oportunidades existen en turismo o si hay                                                                                                                                                         | 145 [00:03:51] ¿Qué es lo que hace? ¿O qué es lo que traen o no? No sé para qué trabaja el turismo. Solo he escuchado que hay turistas que vienen. Turistas va, pero no sé qué es lo que, qué es lo que vienen a hacer o qué es lo cuál es el objetivo de ello                                                                                                                                                                              | No                                                                                                    |
| no tiene el carácter    | Describe que participar en turismo requiere un carácter adecuado. Generalmente este fue una explicación porque otras personas no involucraron en el turismo, no tanto una barrera que encontraron un respondiente | 142 [01:07:40] Porque no se puede meter cualquier persona, porque trabajar con turismo es una cosa delicada. Pues para nosotros es delicado, porque si viene un turista y lo trata mal un guía, entonces no van a hablar del guía, van a hablar de el destino turístico de Yaxhá, los guías de Yaxhá, los guías del Parque Nacional de Yaxhá. Son todos. Entonces nos vamos a rendir a buscar personas que no vayan por dedicar a todos.    | Puede ser, si no puede cambiar el carácter                                                            |
| no puede por la familia | No puede ir a trabajar en turismo por obligaciones a cuidar miembros de la familia, generalmente, sino no exclusivamente, los niños                                                                               | 71 [00:05:47] Porque a mí se me dificultaba mucho en el sentido de que no tengo con quién dejar a mis hijos. Y a veces es un poco complicado. ¿Quizás se han oído cosas que a veces los hombres han querido faltarle el respeto a las niñas? Entonces yo pensando en mis hijos y a veces pues mi mamá podía, ella venía a verme los cinco días que yo recorría y luego se iba, pero yo sentía que era mucho molestarla va porque ir y venir | Depende en si hay otra persona para cuidar la familia                                                 |
| vergüenza de turistas   | Personas describieron sentir tímidos interactuar con turistas al principio                                                                                                                                        | 225 [00:19:44] Y pues al principio yo no sabía nada de lo que es negocios y trata de ventas y así. Pero me dijeron que va a aprender e incluso yo al principio era bastante tímido, no, no tenía la confianza para hablar a turistas, me sentía como como lo dijera, como inferior al turista.                                                                                                                                              | No, generalmente personas describieron sentir menos tímido con al tiempo trabajando con turistas      |
| turistas difíciles      | Describe que es complicado trabajar con algunos turistas o que ellos no quieren comprar sus servicios                                                                                                             | 228 [00:04:20] Siempre por pues si x o y razón el viene enojado. Lo que trata de hacer es tranquilizarlo, tratar de darle sus comodidades, resolver sus problemas y a la vez que se vaya tranquilo pues que no se vaya con una mala impresión.                                                                                                                                                                                              | Generalmente no                                                                                       |
| carnet                  | Requiere carnet para varios trabajos en turismo, particularmente lo de guía                                                                                                                                       | 241 [00:05:34] Pues sí, pero costaría porque hay [] pedir uno. por ejemplo, hay que estudiar bastante. Con Tikal, le hacen uno carnet y si no tiene carnet no pueden entrar en turismo allí                                                                                                                                                                                                                                                 | No necesariamente, sino los requisitos para obtener el carnet pueden ser (como el nivel de educación) |

|                          |                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                         |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| problemas con compañeros | Describe que tal vez unas personas no quieren involucrarles en turismo por dificultades con los demás compañeros                                                                                               | 87: Problemas con los mismos compañeros. Pero no. Para no tener problemas mejor. Porque habían compañeros guías que no se jalaran conmigo. Porque tú sabes que cuando uno atiende nosotros la persona le brinda amistad y todo eso ¿no?, entonces cuando ellos venían aquí, el grupo de turistas sí, me dejaban mis regalos. Me daban propina. Y había guías que no les daban nada su grupo y eso lo mejor que ellos tenía. Y para no estar así mejor renuncié. Me siento más tranquilo | Depende si llega al nivel que uno ya no quiere seguir participando en el turismo                                                                                                        |
| no ser de la comunidad   | Si personas han llegado más reciente a la comunidad quizás no saben las oportunidades que existen en turismo, sienten que han estado dejados afuera o que no tiene la autorización de trabajar en la comunidad | 155 [00:10:40] ¿Pues aquí de verdad? No, no, no, no, no, porque yo acabo de venir aquí. Va, entonces como te digo llevo como siete meses pero no. No.                                                                                                                                                                                                                                                                                                                                   | Depende, si es cuestión de autorización a trabajar, sí. Si es que solo no conocen cuales oportunidades existen para participar en turismo porque son recién llegados, no es insuperable |
| no tiene tiempo          | Sienten que no tienen tiempo para trabajar en turismo                                                                                                                                                          | H: ¿Usted tendría interés en participar en turismo?<br>129: Saber. No hay tiempo de andar con turismo verdad.                                                                                                                                                                                                                                                                                                                                                                           | Pueden ser, dependiendo en las otras obligaciones de las personas y las preferencias en como gastar el tiempo                                                                           |
| no tiene las facilidades | Sienten que no tienen los requisitos necesarios para trabajar en turismo                                                                                                                                       | 217 [00:04:35] Uno no tiene las facilidades pues de cómo poder trabajar con turismo...217 [00:04:47] Póngale que uno tenga en su terreno cerca de algún lugar turístico,                                                                                                                                                                                                                                                                                                                | Generalmente sí, es fuera del control del individuo                                                                                                                                     |
| no hay quien ayude       | Requiere apoyo de una persona adicional para poder trabajar en turismo y ya no cuentan con este apoyo                                                                                                          | 171: Aja. Haga canastas. Cuando la gente me mire que estoy trabajando, me encargan canastas al porte de este o sea que más bajito va. Pero lo. Ya más antes ahorita ya no ya no hago porque no puedo. Nadie con quien salir a buscar porque todavía los hago yo aquí. Todavía trabajo. Pero no haya quien vaya conmigo a traer                                                                                                                                                          | Depende si encuentra otra persona para ayudarles o hacer el trabajo solo                                                                                                                |
| esta viajando            | No tiene tiempo para participar en turismo/no está en el área donde trabajan en turismo                                                                                                                        | 129: Me voy allá , mi hija, a yo donde quiero voy. Ahorita para Belice he ido pero como ahorita no se puede pasar. Tiene amarada aquí.                                                                                                                                                                                                                                                                                                                                                  | Sí                                                                                                                                                                                      |

## Appendix H: Codebook of factors considered in balancing livelihood activities

Bullet-pointed items identify codes, followed by example quotations. When present, counter examples to the larger themes are presented in italics.

- Tener un plan o horario: Refiere a como personas tienen un plan o horario que usan para apartar tiempo para las actividades para subsistencia y para ingreso en su casa. Este plan puede ser más o menos específico. Por ejemplo, xateros trabajando por mucho tiempo en el bosque notaron que no pusieron tanta atención a la fecha. Personas describieron diferentes tipos de organización de trabajo, como planes 8x8 o planes 22, y varios trabajos en que trabajaron por rotación. Muchas describieron madrugar como parte de su horario o hacer deberes alrededor de la casa o en la milpa durante los fines de semana cuando no estaban trabajando
  - 85: ¿como balanceo? Hay que buscar un tiempo. Pues en la mañana trabajo, atiendo la escuela. Y por las tardes pues ya me encarga de mi casa. Y durante la tarde igual busco un tiempo para lo de mi venta y así. Y con los niños igual como yo estoy aquí en la casa a los atiendo
  - 87: Cuando estoy en descanso cuando salimos a trabajar en la selva o en la cooperativa no que es en el aprovechamiento de madera, entonces uno trabaja allí por plan 22. Cumpliendo tus 22 días de trabajo tiene su descanso, 8 días de descanso. Entonces en este tiempo uno tiene la posibilidad de hacer trabajo personal. Cuando no hay trabajo en la cooperativa una da el tiempo solo para el trabajo de uno
  - *Sin embargo, algunos mencionaron que sus horarios no eran tan estrictos: 154: Si lo que es el trabajo propio. Ahora el trabajo aquí tengo dedicarle tal vez ha[] 24 horas al día va pero no es necesario que trabajas las mismas horas, no que solo alguna emergencia hago el trabajo pues solo para emergencia. De allí todo trabajo un poquito orden al día. Unas 6 horas a ver*



- One thing at a time: Refiere a que personas generalmente dedican a cada trabaja uno por uno.
  - 2: Bueno en turismo tenemos que disponer el tiempo todo el tiempo posible por ejemplo si me voy a trabajar con un grupo 2 o 3 días, es tiempo completo que voy a dedicar. Día y noche.
  - 200: Como el trabajo en Tikal ese es cuando me salgo, cuando entramos allá, me dedico solo a el, porque trabajo de lunes a viernes. Y ya lo que es mis trabajos aquí de la casa o lo que es aquí, lo hago entre sábado y domingo
  - *La excepción son actividades que generalmente no requieren tanto tiempo y se pueden realizar en conjunto con otras actividades, como aprovechando de que hay frutas del bosque maduras mientras están allí por otros trabajos. También algunos mencionaron pedir permisos de dejar un par de días de sus trabajos para hacer otras actividades: 154: por ejemplo si tengo para sembrar[] es el tiempo de la cosecha pide permiso, un día, dos días para poder hacer el trabajo que voy a hacer lo que es cultivo. De allí siempre con mi rutina trabajo aquí*
  
- Temporadas: Explica que trabajos y eventos generalmente ocurren durante momentos particulares del año. Muchas actividades dependen en si es la temporada seca (de verano) o la temporada lluviosa.
  - 35: Ah, son temporadas los trabajos. Por ejemplo ahorita está el trabajo del aprovechamiento. Viene el otro ano, trabajo turismo.
  - 51: ¿Para traer leña? Más que todo ahorita mes de abril y mayo ya hay leña bueno para transportarla. Porque ya esta época, este mes de noviembre, diciembre, ya no se puede. Pongamos de septiembre, octubre, noviembre, diciembre hay mucha agua. Tiene que jalar leña para mantener para los
  - 74: Media vez una mira que el tiempo es húmedo. Puede hacerlo no importa el mes. Media vez este húmedo el tiempo porque cuando hay demasiado sol, demasiado calor, lo que hace la goma es que ya no baja si no en las cortes que tú vas haciendo a vi se va quedando pegado la goma. Entonces tienes que ver que el tiempo esta bueno. Días húmedas la goma está bajando fácil, rápido.

- Insuficientes trabajos: Que no hay suficientes trabajos (particularmente trabajos fijos) en la comunidad o que no ganan suficiente en los trabajos. Algunos mencionaron impactos en reacción de cascada por la pandemia, en que personas ganaban menos y, entonces, contrataban menos personas. Personas describieron actividades que hacían cuando no tenían otro empleo como hacer agricultura propia, hacer jornales, pedir crédito, vender leña, participar en turismo o hacer ventas.
  - 44: Como 2 meses, algo así, nos sacaron. Dijeron que iban a ser rotativo y ya no era rotativo. Porque nos sacaron a nosotros y pusieron unos allí. Estos han estado de corrido. Solo nos engañaron que rotativo iba a ser
  - 44: Pues los árboles ahorita en estos años de la pandemia es que me he dedicado a eso. Cómo no hay trabajo, me he dedicado allí
  - 74: Pues viera que para nosotros es lo mismo. Porque trabajemos allí o trabajamos aquí nuestra vida siempre es igual. No cambia. Porque cuando trabajo en la cooperativa el problema que tengo allí es que trabajo un mes y pasa hasta a veces un mes, o 15 días para que a mí me pueden pagar este dinero. Entonces cuando yo vengo a recibir este dinero, yo ya lo debo todo en la tienda
  - En Tikal no estaba trabajando como generalmente ellos pagan a otras personas a trabajar haciendo las milpas, haciendo jornales, pero cuando ellos no estaban entrando tampoco contrataron a otras personas a trabajar
  
- Entre familia: Refiere que hogares dividieron las actividades de sustento entre sus miembros para balancear las actividades
  - 51: Cuando tiene trabajo aquí, se queda él, como yo me voy. Él casi se mantiene aquí. Él se quede. Ahora cuando estamos los dos. Nos dos ponemos de acuerdo
  - 71: Cuando él se dedica a milpa, soy yo lo que me dedico a hacer ventas a ver cómo va ¿no?, o en lavados ajenos o a ver cómo mantener en el proceso que él está sembrando. Porque no puede sembrar y estar ganando
  - 95: Nosotros tenemos un programa. Yo y ella y la más grande a veces nos vamos a trabajar. Y [nombre] y la nuera que es la mujer de chico mi hijo, ellas se quedan aquí en la casa cuidando los niños. Entonces cuando ellas tienen algo que hacer,

entonces ya se queda ella ella y la [nombre] cuidándolos chamacos. Así nos dividimos el trabajo

- 126: Esta más grandecito. Entonces él nos ha apoyado con los niños más pequeños. Entonces este pero [nombre] trata de regresar más rápido. Y cuando yo estoy en casa entonces yo no voy a ninguna parte ya tiene el tiempo libre para ir a hacer su negocio
- *Una excepción es que un señor describió que hizo mayormente el trabajo en la milpa solo para que sus hijos pudieran dedicar a estudiar: 240: Fíjate que como la educación[] está muy duro entonces ellos se mantienen. Yo de ellos, no espero nada. Por ejemplo no me ayuda. Todo lo que es el consumo en la casa soy yo. Todo lo que es Tikal, mi parcela, ese donde yo reúno todo mi ingreso para ayudar el hogar. Porque para el otro lado, por ejemplo mi hijo en la brigada está estudiando, está en la universidad*
- Ubicación: La ubicación de las actividades de sustento fue un factor importante en como balancean los trabajos y como los dividieron entre la familia. Algunos trabajos, como ir a xatear, trabajar como guarde recursos en un parque, y participar en la POA, más otros, requieren quedar varios días afuera de la casa.
  - 77: ¿cómo hago? Me voy una semana y me quedo allá. Trabajo de lunes a viernes. Y me vengo el sábado. Sábado en la tarde vengo en bus. Que eso voy a sembrar
  - 87: No, como estoy solo no tengo en mi casa porque a veces yo salgo en la selva por 2 meses. Mi casa queda abandonada aquí.
- Gender roles: Refiere que hay trabajos asociados con hombres o mujeres. Generalmente, con excepciones, hombres hacen más trabajo “en el monte” en temas forestales, en la milpa, o para pago mientras mujeres dedican a actividades más cerca a la casa como el cuidado de niños y la crianza de gallinas. Diferentes géneros participan en turismo, sino generalmente hay más hombres guías.
  - 58: Lo que pasa que hubo un trabajo que la cooperativa llevaron un censo comercial que ellos hacen. Entonces la mayoría de guías hombres se fueron hasta

al monte. Entonces por eso logramos ir quedaron algunos. Solo somos tres. En si somos cuatro pero solo tres están trabajando

- 74: Mi esposa, ella la considera ama de casa. Siempre. Ella pues siempre ha tenido la intención de trabajar también pero yo le digo de que a veces para uno que tiene hijos se complica porque a veces porque la mama anda trabajando, los niños se descuiden y tú sabes de que aunque tu pagues para que te cuiden tus hijos nunca te los van a cuidar como los puede cuidar una madre. Entonces no. Si ella hace sus ventas. Hace ventas pero aquí en la comunidad no más. Ella no sale a hacer otros trabajos afuera
  - 194: No, ella no. Ella se encarga de cuidar los dos niños. Y ella se encarga de estar al tanto de ellos. Como yo me voy para mi trabajo, no puedo venir hasta los 8 días
  - 168: Si como no tenemos, cuando hay un varón que trabaja por lo menos que va él a sus jornales. Ya uno de mujer ya madruga. Pero como nosotros nadie va a trabajar, no madrugamos. Sí como le digo uno tiene sus víveres allí a mano, solo agarra y prepara. No sea mucho tiempo siempre. Lo que es la tortilla la compramos
  - 143: La verdad le voy a decir que casi que queda una sola[] H: ¿cómo? 143: El de que se murió mi esposo. Que va para 18 años. Entonces ya casi no se sembró milpa. H: Casi no sembró milpa. 143: Sí, porque como uno de mujer no va a ir a trabajar al monte
- No alcanza el tiempo: Refiere a tema que personas no podían encontrar tiempo para todo que querían/necesitaban que hacer
    - 74: Ahorita si yo no hubiera ido a trabajar a la POA, yo mi huerta yo tuviera con puras plantas nuevas ya de nuevo. Porque ahorita ya estos meses atrás como hace dos, tres meses atrás, el tiempo estuvo perfecto para estar uno cultivando pero como yo no tuve el tiempo no puede. Sí. Ya ahorita solamente el tiempo cambia y siga lloviendo yo puede recuperar las plantas
    - A veces no alcanza el tiempo

- 136: No, yo he sembrado todo el tiempo. No tengo un día de descanso. Todos los días yo trabajo. Porque somos mucho la familia y tengo un gasto bastante fuerte
- 2: Hay que levantarse temprano y acostarse tarde. Si no, no alcanza el tiempo
- *Había unas excepciones cuando personas notaron que no era tan difícil balancear sus deberes y/o encontraron tiempo para descansar: 224: Después del almuerzo descansamos un rato y hacer la cena*
- El pago: Cuanto iba a ganar y que tan frecuente era el trabajo era otra consideración importante en la balanza de los trabajos. Algunos mencionaron que el pago de turismo era favorable y/o que en turismo y actividades como vendiendo animales ganaba más rápido que otros. Algunos mencionaron que no hicieron algunos trabajos por lo poco de ganancia.
  - 60: Porque allí bueno en turismo es más fácil porque a veces en turismo solo cinco, seis días que trabaja, y por ejemplo en otro trabajo hay que esperar al mes para el día de pago. Entonces en turismo es más fácil porque allí es cinco días y puede ganar lo que gana en un mes
  - 96: De parte de proyecto. Pues si el turismo si hubiera mantenido como antes no me conviene a mi trabajar en el Tintal porque gano más en turismo.
  - H: en su opinión, ¿qué tan difícil o fácil es encontrar trabajo en turismo en su comunidad? 149: es algo un poquito difícil por el motivo porque pagan el día 50, 60. Es algo. Es algo difícil. H: ¿y esta causa que esta difícil? 149: Sí porque a veces la gente aunque pagan poquito no van a trabajar.
  - 202: O sea para uno para [] uno no tiene sus centavos viene y vende uno su chumpe o vende unas dos gallinas. De allí hace su pisto ya. Ya a comprar lo que uno quiere o para algo más que sirve va
  - 79: Fíjense que muy barato. A veces no lo quieren dar a mucho a ocho, a unos cinco. A veces no lo corto porque no resulta mucho.
- Pagando\_subs: Refiere que personas contratan a otras personas para ayudar en trabajos especialmente en la milpa, para cuidar miembros de la familia, para cuidar animales o

pagaron personas a traer la leña (o lo compraron en vez de recolectarlo). Algunos compraron tortillas en vez de hacer sus propios.

- H: ¿quién trabajo con usted en la milpa? 56: Sí, hay veces busco un hermano allí que me vayan a ayudar, les pagan su día. Como no me quedo tiempo con ir a trabajar
  - 72: ¿el trabajo? ¿cómo balancear el tiempo? Ah pues es difícil pero allí por lo menos deja de trabajar un día en lo estas y vas a ver tu trabajo y así. Aunque le estas pagando otro pero va a ver hasta cuanto avance a otra persona que uno le paga. Allí es parte la cadena de trabaja, ¿no? Yo estoy ganando pero no me da tiempo a hacer mi trabajo a pago a otro y este está ganando con lo que yo gano
  - 219: ¿la leña? A veces lo compramos. A veces va mi familia a buscar
- Inversión: Personas identificaron actividades (trabajos o de subsistencia) los cuales requieren inversión de dinero, como comprar equipos para alquilar a turismo, comprar/el cuidado de animales, y la cultivación.
    - 165: Últimamente ya no porque cuesta. Porque hace muchos años solo estaba en el monte, botaban el monte, sembraba y los ingresos eran buenas y se cosechaba. Ahora hay que asistirla, con insecticidas, fertilizantes. Ahora esta cara. Muy caro. Necesita mucha asistencia. Tiene que estar entonces ya trabajando allá y para estar siendo. Ya no hay tiempo. Ya quiere mucha dedicación. Y casi no produce. Casi. Y los que no tienen trabajar pues ellos lo hacen pero a veces casi se pierdan lo poquitito para consumo
- Pronosticando: Refiere a la capacidad de anticipar cuando iba a tener trabajo como la mayoría de los trabajos no eran fijos. También, explica como personas iban administrando su dinero mientras esperaban otro tiempo de trabajo.
    - 96: Entonces por ejemplo si me toca, como vamos por rotación, entonces yo voy viendo cuando van entrando los grupos y ya me falta unos tres días para que pasen luego pues yo, empieza a hacer la actividad que tengo que hacer acá en la casa. Entonces cuando, cuando ya me toca ir al tour, ya la actividad que me queda

pendiente ya está planificada, entonces cuando venga me vuelve integrar para hacerla

- **Prioritizing stability:** Dado a que muchos trabajos eran temporarios, personas buscaban oportunidades de trabajo más estable
  - 74: Porque arriero lo tomo cuando yo ya estoy de descanso en otros trabajos. Por ejemplo, yo prefiero un trabajo donde yo voy a ir a trabajar un mes, dos meses, o tres meses de trabajo. Siempre prefiero eso. Pero si es un trabajo de cinco días, yo prefiero mis tres meses que esos cinco días. Entonces es mi forma de cómo mantener mi balance. Siempre voy donde yo miro de que pues voy a obtener un poco más de beneficio
  - 139: Si pues la verdad me dijo el señor cuando me vio que el BID era temporal. Y la verdad que tal vez como a los como al año que yo me salí allí, desapareció el BID. Y por medio de mi papa y del director estoy yo en esta área
  
- **Prefiere unos trabajos más que otros:** Describe que por preferencias personales o condiciones sociales, personas eligieron trabajar unos trabajos y no otros
  - 87: Problemas con los mismos compañeros. Pero no. Para no tener problemas mejor. Porque había compañeros guías que no se jalaran conmigo. Porque tú sabes que cuando uno atiende nosotros la persona le brinda amistad y todo eso ¿no?, entonces cuando ellos venían aquí, el grupo de turistas sí, me dejaban mis regalos. Me daban propina. Y había guías que no les daban nada su grupo y eso lo mejor que ellos tenía. Y para no estar así mejor renuncie. Me siento más tranquilo
  - 101: A veces porque está trabajando a veces porque no quiere. El que no quiere. No porque a veces uno está de descanso pero ya trabajo él está cansado no tiene ganas de ir a sembrar. No puede ser que venga a trabajar en vez de descansar va a la milpa

- Condición física: Refiere a que diferentes trabajos requieren diferentes niveles de labor física o tenía diferentes riesgos físicos. Unos notaban que turismo era comparativamente más fácil o que personas podían conseguir trabajo menos duro con una educación.
  - 202: Está bien porque cualquier trabajo pues lo hace y no tan costoso porque si nosotros [] trabajo así. Cuesta un poco asoleados, porque imagínese yo cuando crecí y yo quebrantando mi maíz en tierra, y así a lo pelota masa. Antes no había molina. Y echaba las tortillas y a dejar comida a la milpa, lo que están trabajando 10, nietos o ocho así animales comida. A ver todo su poco asoleado. Entonces tener un estudio pues ya estudio como estudio grande ya no se colega[] un poco uno porque más descansado el trabajo. Sí. Así como usted ando haciendo su práctica va. Ahorita está asoleando un poco. Pero más que todo ya sacando eso, ya usted va a un descanso ya no se va a asolear. Entonces esta bueno lo que hacia
  
- Tiempo para Dios: Unos mencionaron la participación en su religión como un parte de sus horarios
  - 84: Bueno para todo hay tiempo. Dijo hay que apartar tiempo sí. Hay que apartar el tiempo. Ahorita que estoy trabajando yo me vengo a las 5:00, para estar dentro de la iglesia, dentro de la oración, antes. Aunque uno está trabajando tiene que dedicarse tiempo a Dios. Igual cuando uno se va a trabajar agricultura, hay que dedicarle tiempo a Dios. Dos horas, una hora. Siempre. Para no desconcentrarse, a no dejarse.
  
- Household composition: Este tema refleja que la distribución de actividades entre la familia depende en quienes estaban en el hogar, particularmente como características como la edad, la cantidad de niños y adultos en el hogar, y el género influyeron los trabajos que hicieron. Una mujer menciona que era más difícil para sus hijos conseguir jornales porque eran menores de edad
  - 106: La mera verdad ahorita sembró un poquito de maíz pero como no puso mucha atención se me fue el agua casi todo se me murió. Bueno la mera verdad yo no siembro este tiene como unos ocho, nueve años no sembró maíz. Pero si he



sembrado. Yo sembraba maíz más cuando tenía mi compañera. Cuando venía la  
mama de mis hijos, yo sembré más, me dediqué más a la agricultura. Pero un día  
dijo mi hermano que haces allá, sembrando milpa vieja estas [] en tu espalda. Me  
desanime

## Appendix I: Income calculation assumptions

To generate a uniform (conservative) estimate of household income when survey respondents could not precisely remember how much income they earned in a given activity, I applied the following approximations:

- I used daily wage rates from tourism rather than participants' more rough estimates to calculate wage when they gave me approximations of the tour price for the Carmelita tour. (Guide-235, Cooks-147, Muleteer-147, Assistant-147, Mules-60 daily/per mule. (They rent two). Equipment-5 /quilt. Sheet and quilt (10 Q). 4 nights-40 Q/nights. The price of equipment has not increased. For Dinastía Khan, I used participant estimates because I did not have the daily rate
- If respondents gave the daily wage rate, I used that. Notably, in Carmelita the wage rate increased in 2021, but I still used participant estimates of the previous rate (125 daily), if that was what they reported. If did not have the exact number of days worked, I used monthly approximation for other jobs.
- If people did not report how many days was the length of their tour in Carmelita, I used the length of a 5-day tour, as this is most common
- If they had multiple mules and rented them to tourism, I assumed they rented 2 at a time unless otherwise specified as the mule rotation is 2 mules at a time
- When people gave a range of days paid or services completed (i.e., 3-4 tours), I took an average of the range (i.e., 3.5 days) or half the maximum estimate if only the maximum was provided. Similarly, if items are sold for a range, i.e., 2.5-4 Q/gruesa, I used the average price
- If participants did not know how much they earned in a particular activity and did not give any context, I assigned an income of 1 Q to demonstrate that they earned income from that source. If they gave some context (i.e., at least 20 tours), I used the minimum estimate to approximate income.
- If interviewee mentioned that a family member who somewhat resides in the household (i.e., sleeps there, but manages finances mostly separately), only the portion of income they contribute to the household was counted toward the estimation of household income
- For businesses/restaurants, if the only information was that they made less than 1000 Q a month on average, I used a value of 500 Q a month to approximate income
- Similarly, if someone had earnings from sales every 15 days, but did not necessarily make sales consistently, I assumed they finished selling their product at least once a month. For people who described finding work some months, and not others, I assumed they found work at least half the months (6) of the year
- Used 1 quintal=100 libras conversion and used decimal quintales when price was given per quintal and quantity collected in libras
- If someone indicated that they were paid for renting land for the harvest, I used the assumption that there were 2 harvests in the year
- If respondents could not remember how much they sold of a crop, but remembered how much they earned per unit, I approximated estimating that they sold half of what they harvested

- If participants described how frequently they sold when a fruit was in season, I assumed the season was about a month
- If respondents did not mention a per unit price of gruesa of xate they collected, I used an estimate of 2.3 Q/gruesa as estimates from other xate collectors mentioned prices of 1, 2 and 4 Q per gruesa depending on quality of xate and size of gruesa.
- I looked at income over the past 12 months. If someone had recently started a job or switched jobs, I counted it as a full month if they had been working there at least half the month at the time of interview.
- I used a conversion rate of 7.5 Q to \$1 for remittances or other income reported in USD
- If someone could not remember the salary for a particular job, but other people had mentioned that job, I approximated the income from that job using other people's estimates. For example, 3600 for a plan 22 in the POA, 3000 per month for fire prevention and carpentry, 3600 for employment with a government organization in Yaxha National Park, 3,300/month for clearing fire breaks in Tikal
- If someone could not remember how many tours they went on, I used a minimum estimate of one this year. Similarly, if someone could not remember how many weeks they worked in jornales (day-labor), I used a minimum estimate of 1 week.
- If earned income in washing from both tourism and other washing, and not otherwise specified, I estimated half the washing income was from tourism
- For people earning wages in ASODESTY, I calculated having 3 months of receiving wages at the higher RA, salary, and the rest at 50 Q/day
- For lodging, I used an estimate of their earnings rate times the minimum estimated about of time that they had lodgers.
- Only counted income from tourism as that from as part of a direct service to tourists or as part of a tourism association (i.e., not in government positions in parks that interacted with tourists. I did, however, count these positions as involvement in tourism). I did not include sales in stores to tourists if could not distinguish how many of sales were to tourists or other patrons. If sold artisanal products but did not specify how much of the sales were to tourists or other patrons, I assumed half the sales were to tourists.
- I multiplied quincenal (15-day periods) wages by 2 for a monthly rate and weekly rates by 4 for a monthly rate
- I treated employment described as "casi todos los días" as a 22 work-day month unless otherwise specified. If respondents did not specify months in which they did jornales (day-labor), but said almost every month, I assumed they worked in day-labor when they did not do other jobs. I used a multiplier of 30 days per month when people gave daily earnings that they earned each day for a month, and they specified that they worked the full month.
  - For ventas de caja where people indicated that they went every day and sometimes had sales and sometimes not, I assumed a 22-day working month with sales on half the days

Appendix J: Empowerment indicators and scoring for the three communities

D: Disempowered (1), SD: Slightly disempowered (2), M: Mixed (3), NE: No effect (3), SE: Slightly empowered (4), E: Empowered

(5)

|          | Indicator                                                                              | Carmelita |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Yaxhá |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Socotzal |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|          |                                                                                        | Score     | Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Score | Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Score    | Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Economic | cash earned is shared among many families vs. only local elites participate in tourism | E         | <ul style="list-style-type: none"> <li>Resident perceptions: Interview respondents described that tourism was an important source of income for the entire community, either directly through households earning income in a variety of jobs from guiding to mule rentals to laundry services, or indirectly through tourism service providers' wages supporting the local economy for instance in purchases made at local stores or buying firewood from neighbors. Key informants reported that most of tourism revenues went to the community. Nonetheless, some respondents still felt that tourism benefited a select group more, for example in who was invited to go on exchanges to visit other tourism enterprises or who had administrative roles.</li> <li>Distribution of income: 72.2% of surveyed households earned income in</li> </ul> | SE    | <ul style="list-style-type: none"> <li>Resident perceptions: Respondents described Yaxhá National Park as an important source of employment, and some who worked with tourists described it as a good source of income. However, some suggested that there were few sources of tourism jobs in Yaxhá, such as the hotel, which already had employees.</li> <li>Distribution of income: 35% of surveyed households had earned income in tourism, and 30% had earned income from the park in the past 12 months</li> <li>Wealth difference: There was no difference in mean household income among households that did and did not earn income in tourism (<math>t = -1.6724</math>, <math>df = 12.645</math>, <math>p\text{-value} = 0.119</math>)</li> <li>Income distribution management: ASODESTY member associations invited interested service providers to work in the visitor center on a</li> </ul> | SD       | <ul style="list-style-type: none"> <li>Resident perceptions: Tikal National Park was an important source of employment for a sizeable portion of the community, but these numbers were low compared to the population wanting consistent employment opportunities.</li> <li>Distribution of income: 20.0% of surveyed households earned income in tourism and 38.3% earned income in the park in the past 12 months</li> <li>Wealth difference: Households earning income in tourism earn significantly more total income than households that do not earn income in tourism (<math>t = -3.3052</math>, <math>df = 18.115</math>, <math>p\text{-value} = 0.00391</math>)</li> </ul> |

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|  |  | <p>tourism, and 1.9% earned income in the park in the past 12 months.</p> <ul style="list-style-type: none"> <li>• Wealth difference: Average household wealth did not differ between households that did or did not earn income in tourism (<math>t = -1.0014</math>, <math>df = 17.439</math>, <math>p\text{-value} = 0.3303</math>).</li> <li>• Income distribution management: The Carmelita Cooperative maintained a rotation of service providers and removed people who already provided other services to tourists from the equipment rental rotation for a greater distribution of benefits. However, participants also voiced concerns that people with wage-earning jobs in cooperative administration still rented equipment and mules. Some felt that the cooperative retained too much of the revenue from the tours and/or owed its members dividends, which the concession management does not do. The Cooperative could suspend individuals from the tourism rotation for a lack of professional behavior, yet some respondents felt that these sanctions were unfairly</li> </ul> |  | <p>rotational basis. Respondents described not all members participated because of other commitments</p> |  |  |
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|                                                                                                                     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | applied or a way of limiting critique of the Cooperative |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| visible signs of improvement from tourism revenues (improved water systems, houses made of more permanent material) | E  | <ul style="list-style-type: none"> <li>• Improvements perceived: Respondents noted that tourism infrastructure, particularly the camping areas, have improved over time.</li> <li>• Improvements desired: Some participants noted that the road to Carmelita and the well system in the community still required improvements, however this type of development also depended on funding from the municipality, outside of the Cooperative investing tourism revenues.</li> </ul>                                                                                                                                          | E                                                        | <ul style="list-style-type: none"> <li>• Improvements perceived: A portion of park revenues were used to improve water systems in the community.</li> <li>• Improvements desired: One respondent noted that the road still needed improvements.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                       | NE | <ul style="list-style-type: none"> <li>• Improvements perceived: Respondents noted some improvements in communal infrastructure (schools, installation of water and electric light) over time, but these were not directly attributable to tourism revenues.</li> <li>• Improvements desired: They desired improvements to the road and the community clinic</li> </ul>                                                                                                                                                                                                                                                                  |  |
| community retains access to productive natural resources (i.e., hunting/agricultural lands)                         | SE | <ul style="list-style-type: none"> <li>• Hunting/fishing: Carmelita residents hold limited, regulated hunting/fishing rights (for subsistence purposes) although some respondents reported hunting as broadly illegal. One respondent described a situation where he was detained on his agricultural land by police on suspicion of hunting, when the firearm he carried was for protection, and he was not hunting.</li> <li>• Access to land and forest products: The Cooperative assigns agricultural areas to families for use for planting a milpa, and residents could acquire licenses to gather forest</li> </ul> | M                                                        | <ul style="list-style-type: none"> <li>• Hunting/fishing: Fishing was observed in the area, but there were restrictions on entering the lake because of crocodiles. Per the Yaxhá Management Plan, the park maintains registries of individuals caught hunting and fishing in the park and confiscates hunted game.</li> <li>• Access to land and forest products: Participants described that <i>finca</i> (rural land property owners) could decide what to do on their own land, although only some families had formal land title while others had only possession rights. 95% of surveyed households in Yaxhá have access to their own or family</li> </ul> | D  | <ul style="list-style-type: none"> <li>• Hunting/fishing: The 2003-2008 Tikal Master Plan repeatedly mentions concerns of hunting and non-timber forest product harvesting by neighboring communities as a threat to the park, although it does note that public use of Tikal should benefit adjacent communities. One respondent described a past incident where former residents of the community were shot for hunting in Tikal.</li> <li>• Access to land/forest products: External landowners own the land adjacent to the park entrance. Select members of the community have access to agricultural land or use family</li> </ul> |  |

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|  |  | <p>resources (like palm leaves used to construct roofs). 72.3% of surveyed households either had their own or access to family's agricultural area.</p> <ul style="list-style-type: none"> <li>• Access to tourism: Mirador management plan allows development of low-impact tourism activities (which in part, are defined as ones that promote the economic development and sovereignty of local communities), and visits and ceremonies in sacred sites. The plan for public use of the park states that tourists must be accompanied by a community guide.</li> <li>• Historical displacement: Some respondents lamented that they lost access to land because the concession's management plan for where to have agriculture, conservation, and forest harvesting areas superseded earlier familial claims to land.</li> </ul> | <p>members' agricultural area. One artisan from ASODESTY wished they could collect deadwood from the park for their products, which was prohibited. Meanwhile, Yaxhá residents could collect wood from their own properties for personal use</p> <ul style="list-style-type: none"> <li>• Access to tourism: One objective of the national park is to provide alternative economic opportunities to surrounding communities through activities like ecotourism.</li> <li>• Historical displacement: Historically, community members lived closer to the park, but people moved out of the settlement both with issues with flooding and when the area was declared protected. There is still an old cemetery by what is currently the park's visitor center. Respondents' interviews suggest that the declaration of the Maya Biosphere Reserve in 1990 resulted in more land conflict than the subsequent declaration of Yaxhá Nakúm Naranjo National Park in 2003, particularly because of ambiguity in the delineation of the location of strictly protected areas in the law declaring the reserve. The creation of the MBR displaced</li> </ul> | <p>members' land (30%) while the majority do not have agricultural land or rent it (70%). While artisan products are not prohibited, collecting woody material from the adjacent park is, and community members report concerns of misunderstandings with CONAP if they work with wood products either for artisanal purposes or for their homes, no matter the source of the material. A few respondents mentioned the threat of jail for collecting forest products from the park, and one woman strongly lamented that park employees let fish from temporary streams die and fruit rot, when poor villagers could make use of them.</p> <ul style="list-style-type: none"> <li>• Historical displacement: After the declaration of the protected area, individuals lost access to xate collection, which had been a dominant livelihood activity in the area and were displaced from the park area, although residents reported a cemetery within park boundaries.</li> </ul> |
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|  |                                                                                                                                                                                                                                                      |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    | livelihoods dependent on natural resource gathering, like fishing, hunting, or gathering the decorative palm xate. Some respondents associated the declines in non-timber forest product harvesting with the advancement of the agricultural front and deforestation.                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                                                                                                                                                        |
|  | Profits invested in community-tourism management or communal benefits (improved communal infrastructure like schools, roads, water collection, waste management) vs. profits accrued by outside agencies (gov., private sector) w/o local investment | SE | <ul style="list-style-type: none"> <li>Investment in community enterprise: The Cooperative invested tourism revenues in improving existing tourism infrastructure and expanding tourism offerings, such as investing in a new destination, Puerto Arturo, within the concession area.</li> <li>Investment in local social benefits: The Cooperative offered tourism employees resources like interest-free loans, and limited funds and transportation for emergencies, although some respondents felt that these forms of support were too limited.</li> <li>Revenue management concerns: Some respondents desired more transparency about how the Cooperative invested tourism revenues or perceived that most of the tourism infrastructure was from donations, rather than investments, and thus felt that</li> </ul> | SE | <ul style="list-style-type: none"> <li>Investments in community enterprise: ASODESTY tourism associations invested profits in items useful for their associations, like first aid kits or the boating organization saving to invest in a new boat, although limited sales delay these types of investments.</li> <li>Investment in social benefits: 10% of tourism revenues from Yaxhá National Park are allocated to development projects in neighboring communities, rotating between the communities. This funding was used to bring a potable water system to Yaxhá. ASODESTY organizations purchased supplies (like certified wood) from other community-based enterprises.</li> </ul> | NE | <ul style="list-style-type: none"> <li>Investments in community enterprise: Socotzal does not currently have a community tourism enterprise</li> </ul> |



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|                                              |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | the Cooperative administration retained more tourism revenues than necessary, instead of using them to pay service providers. One respondent also criticized the delay in receiving tourism pay after returning from a tour. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| Portion of residents' income tied to tourism | E | <ul style="list-style-type: none"> <li>• Portion of income from tourism and park: On average, surveyed households earned 20.2±22.6% of their income from tourism and 1.4±10.0% from the park</li> <li>• Perceived importance of tourism income: Interview respondents described tourism income as personally helpful to instrumental to supporting the local economy. One woman described putting her kids through school from tourism income. However, respondents did note that the park closure during the pandemic dramatically reduced tourism income and that sometimes they had to wait a long time for the tourism rotation to pass. Another respondent suggested that service providers should earn greater wages.</li> </ul> | SE                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>• Portion of income from tourism and park: On average, 12.2±26.1% of surveyed households' income came from tourism, and 20.3±30.4% came from the park.</li> <li>• Perceived importance of tourism income: Participants described that they or their family members benefited from employment in the park, or from participation in ASODESTY, which currently has funding to pay daily wages to members of the association who take turns selling their products and services in the park visitor center. A guide described that he could sometimes earn \$100 for a single tour. However, the commercialization cooperative branch of ASODESTY did not yet have enough funds to pay dividends to its members, which it planned to do at a future date. Tourism revenues fell below service providers' expectations, particularly because of the pandemic. Key informants suggest that some community members were less</li> </ul> | M | <ul style="list-style-type: none"> <li>• Portion of income from tourism and park: On average, households received about 3±10% of their income from tourism and 23±34% of their income from the park.</li> <li>• Perceived importance of tourism income: Some park employees noted the importance of park income in their lives and for their families, while other respondents pointed out that the amount of employment provided by the park is low compared to the number of families that needed jobs, and that many people are employed without permanent contracts. Some people reported that the wages were low, while they were high compared to other, less stable, livelihood activities.</li> </ul> |  |

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|               |                                                                                                                                                                        |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    | interested in tourism because they hoped for a faster, larger payout in the context of unemployment in the communities surrounding Yaxhá National Park.                                                                                                                                                                                                                                                                                                                                                                                                |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Psychological | Self-esteem of many community members enhanced b/c of outside recognition of uniqueness and value of their culture/their natural resources/their traditional knowledge | E | <ul style="list-style-type: none"> <li>• Residents proud of working in tourism: Tourism service providers expressed excitement and pride about sharing the guided tour with visitors, with one person calling it an unforgettable experience. They described that they could both teach tourists and learn things from the experience.</li> <li>• Perceived limitations in tourism knowledge/interest: A key informant lamented that there was limited interest in avitourism among service providers, despite its market potential.</li> <li>• Concerns about portrayal of destination to tourists: A few respondents critiqued that guide training valued textbook over experienced-based knowledge</li> </ul> | SE | <ul style="list-style-type: none"> <li>• Residents proud of working in tourism: Respondents described enjoying when tourists came to visit, and conveyed excitement about what Guatemala and Yaxhá National Park had to offer. Participants described that they had knowledge about plants and animals that they enjoyed sharing with tourists, and one service provider referred to himself as an “ambassador” for Guatemala. However, some respondents voiced that tourists seldom stopped in the community itself on the way to the park</li> </ul> | M  | <ul style="list-style-type: none"> <li>• Residents proud of working in tourism: Socotzal residents who worked in Tikal or worked with tourists spoke with pride that tourists came from all over the world to visit Tikal and presented themselves as ambassadors for Guatemala in their interactions with tourists.</li> <li>• Perceived limitations in tourism knowledge/interest: Other respondents lamented that some residents of the community knew very little about Tikal and that tourists knew more about the history.</li> <li>• Concerns about portrayal of destination to tourists: One respondent lamented that foreigners believed things like Guatemala was an unsafe country or that the Mayan people died out, relegating Mayan civilization as an archeological artefact, rather than a living community</li> </ul> |
|               | Increase in access to employment and cash leads to increased status for traditionally low-status members of community (women, youth)                                   | E | <ul style="list-style-type: none"> <li>• Women/youth involvement: 80.8% of surveyed female household heads reported earning income from tourism at some point in time. 18.5% of surveyed household heads who had ever earned income in</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SE | <ul style="list-style-type: none"> <li>• Women/youth involvement: 30% of surveyed female household heads reported ever earning income in tourism. Most surveyed household heads who had earned income in tourism were under 40 years</li> </ul>                                                                                                                                                                                                                                                                                                        | SE | <ul style="list-style-type: none"> <li>• Women/youth involvement: Women were not well-represented in the Tikal guide association, but there are female students in the new guide class. 38.9% of surveyed household heads who had ever earned</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|                                                                            |    | tourism were 30 years old or younger.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    | old. There were opportunities for women and young people to become involved in tourism through ASODESTY.<br><ul style="list-style-type: none"> <li>• Perceptions of limited status change: A key informant described underdevelopment in the community, especially because of the pandemic.</li> </ul>                                                                                                                                                                            |   | income in tourism were 30 years old or younger. To date, there is no community-tourism enterprise                                                                                                                                                                                                                                                                                                                                                                       |
| Have confidence to talk with tourism donors                                | E  | <ul style="list-style-type: none"> <li>• Successful applications for projects: The Carmelita Cooperative repeatedly applied for and secured funding or technical assistance (like training workshops) from governmental and non-governmental organizations. The separate family-run tourism enterprise in the community has also applied for and received donations.</li> </ul>                                                                                                                      | E  | <ul style="list-style-type: none"> <li>• Successful applications for projects: Yaxhá community and ASODESTY leaders described filing applications for and securing projects, funding, and tourism training opportunities from the municipality or NGOs. ASODESTY leaders also discerned between sources of funding, and turned down project invitations from institutions that did not align with the association's goals.</li> </ul>                                             | E | <ul style="list-style-type: none"> <li>• Successful applications for projects: The tourism commission of the COCODE actively seeks funding for projects from institutions like MAGA, the municipality and NGOs. It secured subsidized funding to host a guide training class in Socotzal while navigating a bureaucratic process to host classes</li> </ul>                                                                                                             |
| Confusion/frustration /disinterest/disillusionment with tourism initiative | SE | <ul style="list-style-type: none"> <li>• Overall perception: Respondents were generally positive about tourism development.</li> <li>• Disappoint about level of benefits: Some described that the level of benefits did not reach their expectations</li> <li>• Complacency: Key informants suggested service providers did not demonstrate strong interest in expanding their skill sets for tourism, for example from not dedicating to foreign language study or attending trainings.</li> </ul> | SD | <ul style="list-style-type: none"> <li>• Overall perception: Respondents did not see a major effect from tourism in the community, and many perceived that relatively few people from Yaxhá were involved.</li> <li>• Disinterest: Some community leaders believed that youth/young adults were not interested in tourism and considered it a waste of time. Some survey respondents were disinterested in tourism involvement. Focus group respondents of individuals</li> </ul> | M | <ul style="list-style-type: none"> <li>• Overall perception: Participants voiced interest in tourism.</li> <li>• Concerns about tourism development: Some key informants noted a conflict between the COCODE and the teachers about using the classrooms for the guide class, which caused some community members to be concerned about older students using the classroom for the class. Another respondent noted that some parents were hesitant for their</li> </ul> |

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|  |                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |   | involved in tourism suggested that they put more interest in tourism when they had to pay for part of the training opportunities than individuals assisting more recent classes for free. Some of them mentioned a failed former tourism project in the community, or a pig-raising co-op that collapsed, raising concerns about communal projects                                                                                                                                                                                                                                                                             |    | teenage daughters to enroll in the guide class at night.                                                                                                                                                    |
|  | Fear of losing control over local planning and decision making | M | <ul style="list-style-type: none"> <li>Concerns about losing local control: Participants voiced concerns about proposed or rumored contemporary and historic plans to construct a highway or train to Mirador National Park, for fear that these “megaprojects” and powerful interest groups would undermine community management and displace/outcompete locally provided tourism services. The Mirador Management Plan describes conflicts over proposed legislation to expand the boundaries of Mirador National Park. One key informant described the need to make alliances with helicopter tour companies so that community members could still benefit from these types of tours. The Mirador Management Plan also notes a</li> </ul> | M | <ul style="list-style-type: none"> <li>Concerns about losing local control: Key informants noted concerns that if ASODESTY did not use the visitor center, the park may rescind permissions to sell tourism service there, which resulted in a complicated situation during the pandemic when there were too few sales to tourists to pay workers to come sell products/services to tourists.</li> <li>Mitigating external threats to local control: ASODESTY recently signed a new agreement with the park extending the organizations’ permissions to sell services to tourists from the park’s visitor’s center.</li> </ul> | NE | <ul style="list-style-type: none"> <li>Low level of local control: There is currently little local decision-making authority in Socotzal, and participants did not mention concerns of losing it</li> </ul> |

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|  |  | <p>risk that helicopter tourism would promote elite tourism.</p> <ul style="list-style-type: none"> <li>• Mitigating external threats to local control: Other respondents suggested the train project was only speculation or that the Cooperative would support it if it could manage it. Some service providers described that tourists strongly preferred the adventure of hiking to Mirador National Park and would oppose train development. The Plan for Public Use of Mirador recommends that highways to Mirador would not be consistent with the laws about protected areas. The Carmelita Cooperative applied for, and renewed the community concession contract</li> </ul> |  |  |  |  |
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| <p>Pride in skills to offer tourists vs. perceived lack of skills to engage with tourists</p> | <p>E</p> | <ul style="list-style-type: none"> <li>• Confidence in tourism skills: Respondents described improvements in tourism skills over time, strong knowledge of local flora/fauna/insects/fungi/archaeology/geology/astronomy/Mayan cosmology, an ability to interpret the needs of different tourist groups, reoccurring access to tourism service training opportunities, extensive experience in and knowledge of tour position responsibilities, first aid and medicinal plant knowledge, and confidence in their abilities in tourism services. Some described skills and experience organizing and selling tour packages.</li> <li>• Perceived improvements in skills needed: Some respondents noted some needs for improvement in the quality of tourism service provided, including a need for English language training. Key informants suggested that tourism service providers needed to enhance their skills and perhaps earn degrees to truly be empowered in tourism or compete with other larger tour companies if a highway was constructed to Mirador.</li> <li>• Critique of others' skills A few respondents suggested that the guide authorization was an</li> </ul> | <p>M</p> | <ul style="list-style-type: none"> <li>• Confidence in tourism skills: Respondents described taking classes and experience in guiding, marketing, bird identification and investigation, human relations, artisanship, and English, as well as knowledge of medicinal plants.</li> <li>• Perceived improvements in skills needed: However, others noted the low levels of formal education completed in the community and the fact that most tourism hotels and restaurants were outside of the community as obstacles to providing services to tourists in Yaxhá. Some respondents noted the need for greater training in customer service, foreign languages (i.e., English) and financial management, particularly.</li> <li>• Nervousness around tourists: One respondent described being a bit nervous to chat with tourists, but then growing more accustomed and enjoying it.</li> </ul> | <p>M</p> | <ul style="list-style-type: none"> <li>• Confidence in tourism skills: Participants reported that community members had/were developing skills that could be useful for tourism like in apiculture, woven baskets, agricultural practices of interest for agritourism and extensive knowledge of flora, fauna, medicinal plants, and archaeology. Some respondents have completed technical training and/or obtained guide authorization.</li> <li>• Perceived improvements in skills needed: Participants frequently described limited opportunities for formal educational attainment or guide training and authorization that they believed precluded them from tourism involvement. Some described English-speaking abilities as instrumental for participation in tourism</li> <li>• Nervousness around tourists: Some respondents mentioned feeling shy around tourists.</li> <li>• Critique of others' skills: Others noted concerns that guides gave incorrect information to tourists or that other community members had limited knowledge of Tikal or tourism.</li> </ul> |
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|  |  |  | artificial distinction because they felt they had better skills in tourism than individuals currently working in tourism. |  |  |  |  |
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| Social | Community equilibrium maintained or enhanced vs. disharmony or social decay | M | <ul style="list-style-type: none"> <li>• Conflicts about tourism: There are some conflicts between tourism service providers and about the distribution of tourism benefits in the community. Some respondents described that speaking contrary ideas in assemblies led them to feel they were perceived as enemies</li> <li>• Overall perception of town: Residents described that people in the town knew each other, and it was a peaceful town. However, a women described concern about departing for tours and leaving her adolescent daughter home alone because of concern that men would harass her</li> <li>• Effect of tourists: Respondents suggested that tourists did not have much of an effect on the community, because they spent little time there before leaving on the hike or returning to the city.</li> </ul> | SE | <ul style="list-style-type: none"> <li>• Overall perceptions of town: Respondents described a positive relationship with the park and its employees. Some respondents noted that horse robberies had occurred in Yaxhá, but that the town was overall peaceful and safe</li> <li>• Historical conflicts in community: Respondents noted historical violence in the community, with many people leaving during the Civil War. There were some disputes about how to divide a large finca in the area when the owner turned it over to the community, with some individuals advocating for more communal areas like a school, while other preferred that each family would have their own, smaller, landholdings. Some respondents attributed the collapse of a previous attempt at a communal tourism enterprise to deficiencies in human relations capacities. A resident of the neighboring town to Yaxhá who used to participate in tourism, described that he was once threatened for encouraging conservation.</li> <li>• Effects of tourists: The current tourism activities in Yaxhá or through ASODESTY did not have an observed,</li> </ul> | NE | <ul style="list-style-type: none"> <li>• Conflicts about park: A Tikal Park guard reported concerns of creating “enemies” within their community because they were responsible for preventing hunting, which other residents of Socotzal engaged in.</li> <li>• Historical conflicts in community: Another respondent noted social tensions living in the community during the Civil War, because one was not sure if their neighbors may be collaborating with the guerillas or the army.</li> <li>• Effect of tourists: The above concerns were not directly attributable to tourism.</li> </ul> |
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|  |                                                               |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |   | major effect on the community, apart from ASODESTY tour guides offering periodic classes and excursions to school children.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|  | Improved community cohesion by working together on enterprise | M | <ul style="list-style-type: none"> <li>• Conflict resolution mechanisms: The auxiliary mayor has a responsibility for mediating social conflicts in the community, none of which reached the level of the Cooperative. The Mirador Management Plan notes that past, unorganized tourism development initiatives and a lack of leadership divided communities.</li> <li>• Feelings about tourism: Participants noted that tourism did not affect the sense of community as tourists spent little time in Carmelita itself or anticipated tourist arrivals with excitement. However, another respondent described being considered an “enemy” for criticizing tourism management in the community.</li> </ul> | M | <ul style="list-style-type: none"> <li>• Mutual support: Members of ASODESTY organizations described encouraging tourists to purchase goods/services from the other organizations as well.</li> <li>• Growing interest in community enterprise: One key informant related how the community began organically organizing and how she was able to get more people in the community interested in ecotourism activities. ASODESTY incorporates 12 communities surrounding the park and seven member associations of tourism good/service providers. The group of boat drivers described coming together, investing in a boat, and hiring another community member to build it.</li> <li>• Past, failed tourism projects: Some projects in the community have been less successful at organizing, such as a previous community-based tourism restaurant, a community co-op to raise pigs, or one to harvest a particular plant, which some respondents attributed to poor management and internal disputes. Others</li> </ul> | SD | <ul style="list-style-type: none"> <li>• Mutual support: One tourism employee reported positive experiences working with colleagues.</li> <li>• Current disputes about tourism: Some respondents described a current dispute with the teachers in the community about the use of the classrooms for offering classes and workshops to adult members of the community, particularly a guide training class.</li> <li>• Past, failed tourism projects: Others reported examples of past failed community tourism enterprises, including one in Socotzal at least 20 years before where someone burned down bungalows built for tourism lodging. Respondents did not recall details of the incident, although some attributed the fire to jealousy or suspicion that one of the community members on the project was using funds for private gain.</li> </ul> |

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|  |                         |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    | <p>described frustration that NGOs encouraged communal projects (like raising pigs in a co-op) when household level assistance would be more useful.</p> <ul style="list-style-type: none"> <li>• Limited options for tourism: Some respondents perceived limited tourism participation opportunities in the town of Yaxhá itself and/or limited participation in ASODESTY organizations</li> </ul>                                                                                                                                                                                                                                                                                                                                            |    |                                                                                                                                                                                                                                                                                                                                                                          |
|  | Strong community groups | M | <ul style="list-style-type: none"> <li>• Internal organization and social ties: Carmelita residents have a long history of community-tourism group development. Outside of tourism, they campaigned for and secured the community concession, with increasing membership in the community cooperative and improved organization over time. The tourism rotation tries to maximize tourism benefit distribution across the community.</li> <li>• Challenges achieving unity: Nonetheless, some respondents mistrusted the Cooperative management and/or felt it selectively benefited certain groups. Some noted challenges organizing, communicating across, and achieving union in the community.</li> </ul> | SE | <ul style="list-style-type: none"> <li>• Internal organization and social ties: Park workers in Yaxhá are connected to the union of workers in Tikal. Among the ASODESTY member associations, individuals work by rotation to sell goods/services to tourists in the visitor center. Each ASODESTY member association and ASODESTY itself have an internal leadership structure, as does the commercialization cooperative associated with ASODESTY. Several interviewees held positions on the community development board. The vision of ASODESTY is that the Yaxhá territory has its own identity and supports sustainable development.</li> <li>• Low involvement in tourism: Members of ASODESTY associations noted low levels</li> </ul> | SE | <ul style="list-style-type: none"> <li>• Internal organization and social ties: One guide described participation in international networks. Socotzal community members described a strong sense of community, where everyone knew everyone</li> <li>• Low involvement in tourism: Respondents noted current limited involvement in tourism in the community.</li> </ul> |

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|                                                                                                                      |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>of membership and that sometimes individuals with other jobs did not participate in selling goods/services in the visitor center.</p> <ul style="list-style-type: none"> <li>• Leadership challenges: Some perceived that leadership was less invested in tourism because leaders had other jobs, or feared that the associations would not be sustained without a motivated leader</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Disadvantaged groups (i.e., women) bear brunt of costs of tourism development and do not share equitably in benefits | NE | <ul style="list-style-type: none"> <li>• Participation of particular groups/limited local costs of tourism: Some women participated in services that did not accompany tourists on the hike to care for children at home but were not negatively affected by tourism .</li> <li>• High-risk jobs: Some respondents described that muleteers had dangerous and potentially life-threatening jobs when they climbed trees to harvest leaves to feed mules while on the tours, but muleteers did not seem to constitute a particularly socially disadvantaged group outside of tours.</li> </ul> | SE | <ul style="list-style-type: none"> <li>• Participation of particular groups: Women were more heavily represented in some service provider positions (like the artisanal food organization), and less represented in others (like the guide organization)</li> <li>• Limited local costs of tourism: Respondents either perceived tourism as a positive opportunity or felt that it did not affect them, as tourists just passed through the community.</li> <li>• Participation of particular groups: One member of ASODESTY described that jobs the organization provided were particularly helpful to her as a single mother.</li> </ul> | NE                                                                                                                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Participation of particular groups: Community leaders identified young people as an important group for whom to foster development in the community, while one respondent noted concerns that women may experience fewer job and education opportunities as compared to men, because they tended to spend more time caring for the home</li> <li>• Limited local costs: No disadvantaged groups bore particular costs of tourism development.</li> </ul> |
| Individuals/families compete rather than cooperate                                                                   | SD | <ul style="list-style-type: none"> <li>• Cooperation mechanisms: One key informant described that the cooperative tried to look out for social and gender equity, and another described the recent agreement between the Cooperative and the</li> </ul>                                                                                                                                                                                                                                                                                                                                       | NE | <ul style="list-style-type: none"> <li>• Tourism service provider freedom: Residents of Yaxhá can decide to invest in their own tourism businesses or join an ASODESTY organization or both. Guides part of the ASODESTY guiding</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                | NE                                                                                                                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Past examples of competition: Some participants noted concerns from a past attempt at tourism development where someone burned down bungalows intended for tourism,</li> </ul>                                                                                                                                                                                                                                                                           |

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|  |  | <p>separate family tourism enterprise in the community that the separate company would pay a percentage of sales to the Cooperative in recognition that the Cooperative managed most of the hiking route and paid taxes on the land.</p> <ul style="list-style-type: none"> <li>• Competition for tourism: A separate tourism enterprise developed when the Carmelita Cooperative replaced the formerly independent tourism commission in the community, and some residents dissented. Many respondents noted ongoing tensions between the Cooperative and the separate tour company, which perceived the agreement as a violation of their rights and argued the Cooperative was not upholding agreements about tour prices or joint use of camping areas. Some respondents held strong preference for when families worked in tourism individually before the Carmelita Cooperative and were angry with the tourism oversight of the Cooperative or felt that they were unfairly treated with suspicion that they would conduct tours on their own because they were not cooperative members. Some tourism service providers criticized the quality of</li> </ul> | <p>association can work in Yaxhá, or, if they are authorized, in other national parks, with the expectation that they pay a percentage of the tour price to the ASODESTY guide association only if they organized the tour through it.</p> | <p>or repeated an allegory about competition in Guatemala</p> <ul style="list-style-type: none"> <li>• Lack of current tourism competition: More broadly, participants did not report specific, current examples of competition.</li> </ul> |
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|  |                                                                                                |   | services offered by the other tourism enterprise or other service providers. Some respondents perceived selfishness in the community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|  | See positive opportunity for intercultural interaction vs. negative interactions with tourists | M | <ul style="list-style-type: none"> <li>• Positive feelings toward working with tourists: Service providers described that they and tourists learned from each other and that they could make new friendships. Many described working with tourists as enjoyable or at least not inconvenient.</li> <li>• Communication challenges: Some mentioned challenges communication or disappointment if the tourists did not speak Spanish.</li> <li>• Difficult tourists: Some service providers also mentioned issues working with demanding, less physically fit, or suspicious tourists, and one tourism employee described one experience working with a racist tourist. Another respondent questioned why tourists frequently asked for discounts when he assumed that tourists tended to be wealthy. The Cooperative also faced past issues with tourists attempting to complete the hike without hiring a guide, although this issue lessened with greater controls over tourism during the pandemic.</li> </ul> | M | <ul style="list-style-type: none"> <li>• Positive feelings toward working with tourists: Participants described interactions with friendly tourists, with whom they shared and learned from each other. Some described working with tourists from all over the world and suggested that most tourists were polite.</li> <li>• Communication challenges: Some individuals who worked with tourists said it could be challenging when the tourists spoke a different language,</li> <li>• Difficult tourists: Other respondents noted that sometimes angry or stressed tourists came to the park (sometimes angry about the quality of the road). Service providers suggested challenges with tourists if they asked many difficult questions of the guide or were more athletic than the guide, or when arguing couples on tours created a negative experience for the whole group.</li> </ul> | M | <ul style="list-style-type: none"> <li>• Positive feelings toward working with tourists: Respondents who worked with tourists described enjoying working with tourists from different countries. Communication challenges: Respondents described difficulties working with tourists who did not speak Spanish.</li> <li>• Difficult tourists: They also described some difficulties working with demanding or entitled tourists, or tourists who were high. One participant described feeling like tourists knew or studied more than him, and a Tikal employee described dealing with tourists who were frustrated with him for enforcing regulations, like the ban on drones in the park.</li> </ul> |

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| Political | Community's political structure fairly represents needs/interests of all community groups | SE | <ul style="list-style-type: none"> <li>• Management structure: Governing institutions in Carmelita include the Cooperative which manages the concession, the auxiliary mayor and the COCODE which oversee the residential parts, infrastructure, and social context in the community. The COCODE also meets with teachers in the community. The Cooperative has the most management authority in practice in the community of the three institutions. Residents of Carmelita elect the auxiliary mayor and the members of the COCODE. Cooperative members have the ultimate authority as a general assembly to elect the Cooperative directing board. This directing board then appoints a manager and coordinators for the projects it manages in the concession, including tourism.</li> <li>• Communication challenges: Despite having an opportunity to speak in general assemblies, some respondents described that they did not out of discomfort speaking in public/to avoid conflict. One non-Cooperative member voiced frustration that the Cooperative was not sufficiently transparent about management decisions.</li> </ul> | E | <ul style="list-style-type: none"> <li>• Management structure: The auxiliary mayor/president of the COCODE is a joint, elected role in Yaxhá. This position watches out for the well-being of the community and represents the community's interests in development projects before the municipality when deciding how to allocate funding from park revenues directed to the communities. Each ASODESTY association, and ASODESTY as an umbrella organization, has a directing board elected by members. The Yaxhá COCODE also has a small, tourism committee.</li> </ul> | E | <ul style="list-style-type: none"> <li>• Management structure: The community leader is the auxiliary mayor, who is also the president of the COCODE. These community institutions support families in the community in extreme poverty through assistance like roof reconstruction and represent the community before the municipality.</li> <li>• Equity: Although there was some concern that the auxiliary mayors preferentially supported their own family members, the auxiliary mayor and community development board positions are decided by elections in the community and change every 2 or 4 years.</li> </ul> |
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|  | <p>Political structure provides forum for addressing questions/concerns with tourism</p> | <p>M</p> <ul style="list-style-type: none"> <li>• Local, internal, tourism leadership: Participants mainly described that the Carmelita Cooperative made tourism management decisions, and some suggested that service providers could mention complaints or offer suggestions during assemblies. They identified the person who sold tours from the office in Flores, the Cooperative manager, the tour rotation logistics coordinator, and the Cooperative president among community leaders they could bring questions/concerns about tourism in the community. The separate family tourism business in Carmelita has its own elected directing board.</li> <li>• Confusion about tourism political structure: Interviewee's responses also suggested some conflicting ideas and confusion about tourism management. For example, some thought the position in the tourism agency in Flores was an elected position (before the Carmelita Cooperative began overseeing tourism, the person responsible for selling tours was an elected position), perhaps because this individual held a different, elected position on the Cooperative directing board.</li> </ul> | <p>SE</p> <ul style="list-style-type: none"> <li>• Local, internal, tourism leadership: ASODESTY associations host meetings and assemblies, where they make decisions, such as about accepting new individuals into the association or new associations into ASODESTY. The Yaxhá COCODE has a two-person tourism committee that aims to promote tourism opportunities in the community, such as guide training</li> <li>• Limited tourism involvement: Promotion of tourism opportunities tended to be a bit ad-hoc in the community, and some respondents described that there was little tourism activity in Yaxhá.</li> </ul> | <p>SE</p> <ul style="list-style-type: none"> <li>• Local, internal tourism leadership: The Tikal guide association has an elected directing board. Within the community, the community development board (COCODE) was responsible for soliciting projects like tourism capacity building opportunities, and sharing project ideas, once closer to fruition, with the community through an assembly.</li> <li>• Limited tourism involvement: At this time, however, there was little community engagement in tourism except for the current guide training class.</li> </ul> |
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|                                                                                                                         |    |                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Limited community feedback: Some respondents described that though they made management suggestions to the Cooperative, these were not taken into account. They desired more transparency around tourism revenues and expenditures and recounted that tourists questioned why service providers wages were not higher based on what they paid for the tour. The COVID-19 pandemic limited in-person reunions, affecting service providers abilities to gather and ask questions about tourism management. People who provided indirect services like laundry described seldom being invited to participate in reunions.</li> </ul> |                                                                                                                                                                                                     |    |                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Opportunities for socially disadvantaged groups (women, youth, special interest groups) to be on decision making boards | E  | <ul style="list-style-type: none"> <li>Women in leadership: Women currently hold leadership position in Cooperative management and on the directing board of the separate family tourism enterprise and have in the past as well.</li> </ul> | E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>Women/youth in leadership: Women and young adults serve in leadership positions in ASODESTY and on the Yaxhá COCODE.</li> </ul>                              | SD | <ul style="list-style-type: none"> <li>Women in leadership: Several women from the women’s focus group noted that they rarely went to Tikal, and a key informant described that there were few women in the guide association at Tikal.</li> <li>Distribution of decision-making power: One participant noted concerns that only people selected by the auxiliary mayor had authority.</li> </ul> |  |
| Power over tourism making decisions decentralized from national to local level                                          | SE | <ul style="list-style-type: none"> <li>Local management authority: The Carmelita Cooperative makes management plans for the concession area, including the archeological sites at</li> </ul>                                                 | SE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Government recognition: Respondents described positive relationships with the park and that it prioritized providing jobs and supporting economic</li> </ul> | D  | <ul style="list-style-type: none"> <li>Governmental recognition: The Tikal Master Plan notes that the park should give preferential employment opportunities to residents of adjacent towns.</li> </ul>                                                                                                                                                                                           |  |



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|  |  | <p>Tintal, along the touristic hiking route to Mirador National Park, of which about 80% passes through community concession area.</p> <ul style="list-style-type: none"> <li>• Governmental recognition: The Cooperative campaigned and made alliances with the National Council of Protected Areas to be recognized as the sole service providers along the concession hiking route. The Cooperative still has to seek permissions and approval after an environmental impact study to develop tourism infrastructure at Tintal, and permissions are even more limited in Mirador National Park, outside the concession.</li> <li>• Community-level disagreements: Despite these management rights at the Cooperative level, some residents of Carmelita disagreed with the Cooperatives land and forest management practices and felt that these were imposed upon them, especially because the Cooperative received support from national and international NGOs.</li> <li>• Local participation in park management planning: Community members did participate in the elaboration of the most recent Mirador national Park management</li> </ul> | <p>alternatives in surrounding communities, a fact echoed in the law declaring the park. Some pointed out that the agreement for surrounding community members to provide services in the park was a unique form of park management in Guatemala.</p> <ul style="list-style-type: none"> <li>• Community-protected area disputes: A key informant described that there was initially conflict over the declaration of the Maya Biosphere Reserve, but that residents of 11 affected communities were able to negotiate that the boundary of the multiple use zone be further north and that they would be in the buffer zone. Yaxhá, however, is located within the multiple use zone and residents who did not legalize their land titles prior to the reserve's establishment can no longer do so. Some respondents lamented that park administrative positions were not as effective at conserving the area as they would like. For example, adjacent to the park there was a finca known as the invaded finca because people had moved into the area and started illegally harvesting and raising cattle. The finca was land under investigation because an ex-governmental official who</li> </ul> | <p>There is a legal initiative for more funding from Tikal to go to the local municipality to support public works in adjacent communities. Even at the municipal level, tourism-decision making power was limited because Tikal revenues were directed to Guatemala City before being returned to the park. Respondents described that the park hired people from distant communities and that park administration positions were often political appointments, resulting in a lack of continuity or not necessarily hiring administrators with extensive archaeological or biological knowledge.</p> <ul style="list-style-type: none"> <li>• Local participation in park management planning: There were 2 gateway community representatives (one from Socotzal) out of 135 actors involved in the Tikal management plan.</li> <li>• Limited authority over tourism in community: In Socotzal, some respondents described a desire to charge helicopter tour operators for landing in the communities' field, which currently does not bring any benefits to Socotzal.</li> </ul> |
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|                                                                                                                                                             |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>plan, and the plan emphasized the importance of this participation. Five Carmelita representatives participated in the Mirador National Park Management plan (out of 101 involved actors) and 21 participated in the plan for public use of the park (out of 135 involved actors).</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>had business on the land was accused of corruption. One key informant critiqued that government leaders kept referring to residents of adjacent communities as the parks owners and responsible for protecting it, when industry representatives were never asked to participate in meetings about environmental impacts.</p> <ul style="list-style-type: none"> <li>• Local participation in park management planning: There were representatives from 11 COCODES from surrounding towns on the Yaxhá Management Plan development, including 1 representative from Yaxhá, among 72 individuals participating in the elaboration of the plan.</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| appropriate institutions for training in tourism finances and technical skills vs. lack of institutional capacity to develop skills and training in tourism | SE | <ul style="list-style-type: none"> <li>• Access to training: Respondents described access to and participation in guide training classes, training in customer service, exchanges with other tourism enterprises, among other learning experiences. Cooperative management actively and repeatedly organized training opportunities and sponsored educational scholarships.</li> <li>• Training still needed: Some respondents described needs for additional training in avitourism or challenges for English classes to meet service</li> </ul> | SE                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>• Access to training: Respondents described participating in training in marketing, food preparation, artisanship, guiding, boating, and first aid, among others. They volunteered with NGOs to study birds.</li> <li>• Training still needed: Some described needing to know a foreign language to communicate with tourists.</li> <li>• Obstacles for training: Some respondents noted obstacles to attending some courses, like being unable to leave the town to take classes because of small</li> </ul> | M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>• Access to training: Park employees from Socotzal and current tour guides described access to classes like a one about jaguars, biosecurity, and literacy, in addition to the current guide-training course in Socotzal.</li> <li>• Obstacles for training: Respondents noted that there was a lot of red tape to secure classes for the community, and some noted limited access to trainings such as those offered by the leading Guatemalan institution for technical training</li> </ul> |  |

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|                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>providers' schedules and needs.</p> <ul style="list-style-type: none"> <li>• Disinterest in training opportunities: Some respondents voiced that people did not participate in training opportunities or that the tourism training opportunities were excessive, and funding would be better spent directly supporting service providers.</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>children at home, the pandemic, or course fees.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>(INTECAP) because of cost and transportation barriers.</p> |
| self-sustaining operation through administrative capacity | SE | <ul style="list-style-type: none"> <li>• Administrative capacity: Key informants described that the Carmelita Cooperative has to balance economic needs creating a viable enterprise with social demands to support equitable job opportunities and tourism benefit distribution in the community.</li> <li>• Financial sustainability: Historically, the cooperative would lose money on tours provided to small groups, but they were able to correct that issue by coming to price agreements with other tour agencies selling the tour, particularly in the context of increased tourism oversight during the pandemic. As a result of the price increase, they also increased service providers wages. Tourism revenues cover expenses and provide enough funding to cover investments like maintaining solar panels in camping areas, while the</li> </ul> | SD                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• Administrative capacity: COINCY manages revenues for ASODESTY and pays taxes. ASODESTY has legal authority to negotiate contracts and bundles and sells tour packages with services from the member organizations.</li> <li>• Financial sustainability: Presidents of some of the associations reported profits for their associations. However, there have not been large earnings for ASODESTY because of the pandemic. Workers' wages are currently subsidized with NGO funding that ASODESTY leaders sought because the businesses were generating debt by being required to pay workers to show up when there was little tourism.</li> <li>• Management concerns: One key informant acknowledged that ASODESTY had less experience in the way of tourism management because</li> </ul> | SD                                                     | <ul style="list-style-type: none"> <li>• Administrative capacity: Participants voiced a desire for projects, particularly foreign projects, for local tourism development, suggesting limited financial and administrative resources for community-based tourism development. The tourism commissioner of the community development board sought access to classes for the community but did not manage funding.</li> <li>• Management concerns: One participant criticized that the auxiliary mayor and community development board president had been consolidated into one post when the positions had different functions.</li> </ul> |                                                               |

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|                                                                                             |   |                                                                                                                                                                                                                                                                                                                                            | <p>Cooperative needed to seek external funding to support larger projects, like building a hotel in Puerto Arturo, a new tourism destination in the community.</p> <ul style="list-style-type: none"> <li>• Management concerns: Some respondents raised concerns about poor management of tours, and one respondent described that a tourist once died unexpectedly on a tour. Some service providers criticized that the Cooperative did not send all service providers (guide, cook and muleteer) with small tour groups to cut down costs, when this decision limited job opportunities and resulted in more work for the tourism service providers who did go on the tour. Some participants perceived that the Cooperative received a lot of external funding and were concerned with a lack of transparency or suspicions about funding mismanagement.</li> </ul> |                                                                                                                                                                                                                                                                                                                                | <p>tourism was mainly seen as one tactic toward achieving sustainable development and conservation in the Yaxhá territory. Some respondents perceived that ASODESTY needed stronger vision and leadership to be competitive, for example getting internet or phone access in the visitor center so the community-managed restaurant could take reservations.</p> <ul style="list-style-type: none"> <li>• Past, failed projects: Participants reported that a former community tourism organization in the area collapsed despite receiving lots of funding, and one was concerned about the decision to make community-enterprises for-profit</li> </ul> |                                                                                                                                                                                                                                                                                                                                              |
| Community rights over tourism resources and revenues/awareness of value of community assets | E | <ul style="list-style-type: none"> <li>• Awareness of value of community assets for tourism: Respondents described feelings of ownership over tourism enterprises and mentioned opportunities for increasing tourism in the community, such as Puerto Arturo, which has high potential for bird and jaguar tourism, among other</li> </ul> | SE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>• Rights over tourism resources: Participants described that the park had a legal commitment to provide sources of employment for the community, and that 10% of park revenues were directed toward projects in the communities. However, one key informant pointed out that</li> </ul> | D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Awareness of value of community assets for tourism: Respondents described ideas for local tourism development, like lodging, stores, and a camping area.</li> <li>• Perceptions of limited tourism offerings: However, they currently perceived that they had limited tourism offerings,</li> </ul> |

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|  |  | <p>types of wildlife. Some respondents also saw opportunities for increasing tourism to Carmelita itself through developing attractions out of the existing apiculture enterprise or by creating a community garden.</p> <ul style="list-style-type: none"> <li>• Rights over tourism resources: Informants described that the community controlled 80% of the hiking route to Mirador National Park in the concession area.</li> <li>• Perceptions of use of tourism assets: A few respondents felt that other members of the community did not properly value the natural capital the community had access to or the archeological sites and Mirador, or that people with knowledge valuable for tourism were excluded from guiding tours because they did not have authorization.</li> <li>• Limits to controlling tourism: The community faced some issues in the past with tourists hiking on their own, without contracting services from Carmelita, although this is criticized in the Plan for Public Use of Mirador National Park.</li> </ul> | <p>these revenues were split across the communities, so each community had to wait for its turn. ASODESTY has a license and signed an agreement with CONAP to sell tourism services in the park visitor center.</p> <ul style="list-style-type: none"> <li>• Awareness of value of community assets for tourism: Respondents saw potential to sell new products and services to tourists, such as selling snacks or locally grown produce produced without fertilizer/pesticides, camping, avitourism, interpretive trails. Some expressed excitement over living close to the lake and archeological sites at Yaxhá, seeing potential for tourism.</li> <li>• Perceptions of limited tourism offerings: Some participants described that Yaxhá did not receive as many tourists as more-visited places like Flores or El Remate, which had ex-patriot owned tourism enterprises. Others pointed out that the presence of the army at the park entrance created a standoffish atmosphere for tourists</li> <li>• Limits to controlling tourism: Another respondent described that foreign nations took most of Guatemala's wealth, for example by excavating and</li> </ul> | <p>and that tourists rarely stopped in the community on their way to the park.</p> <ul style="list-style-type: none"> <li>• Limits to controlling tourism: Some residents described losing access to selling handmade snacks inside of the park because of regulations that they seek permissions to do so.</li> </ul> |
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|  |                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   | removing archaeological artefacts and sending back replicas. Some respondents suggested that park administration was doing little about the illicit activities happening in the finca adjacent to the park.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|  | Community members feel they have little to no say in whether or how tourism operates | M | <ul style="list-style-type: none"> <li>• Perceptions of having a voice: Some participants felt that they had a voice in tourism decisions and that the cooperative took their ideas into account. However, others perceived that if they were not part of an “in group” they did not have a voice or that there had to be considerable pressure from service providers/enough of them describing the same issue for there to be a reunion. Some felt uncomfortable speaking in reunions, and others felt that even if they did speak, management would not listen to their ideas. Respondents described that Cooperative management made decisions alone.</li> <li>• 51.9% of surveyed household heads, indicated that overall, they had a voice in tourism decisions in the community.</li> </ul> | M | <ul style="list-style-type: none"> <li>• Perceptions of having a voice: ASODESTY members described coming to agreements within their groups. However, one leader within one of the associations said the real decision-making power was allocated to the president of ASODESTY.</li> <li>• 35% of surveyed household heads in Yaxhá felt like overall they had a voice in tourism decisions.</li> <li>• Loss of control of local situation: Some described that neither the establishment of the park nor its employees negatively affected them, but there were disputes with the community when the MBR was formed. One respondent suggested the law establishing the MBR was written “behind a desk” without much knowledge of the actual context. Another suggested the government did not pay sufficient attention to local actors trying to protect the forest.</li> </ul> | D | <ul style="list-style-type: none"> <li>• Perceptions of having a voice: Tourism service providers mainly indicated that their bosses made decisions about tourism management.</li> <li>• 35.0% of survey respondents indicated that overall, they felt they had a voice in tourism decisions.</li> <li>• Loss of control of local situation: Helicopters companies now give the community advance notice before using the field to land, but still do not compensate Socotzal for use of the field.</li> </ul> |

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| Participation in tourism remains passive                   | E  | <ul style="list-style-type: none"> <li>• Participation in management decisions: All tourism management positions (the person who sold tours through the Flores-based tourism office, the Cooperative financial management, and the tourism logistics coordinator) were staffed by people from Carmelita.</li> <li>• Participation in supervisory roles: Most participants in tourism participated as service providers. Some positions, like laundry services and mule/equipment rentals entailed less interactive participation with tourists while positions like guiding entailed substantial training and responsibility. Two randomly selected surveyed household respondents indicated serving or having served in tourism administrative roles, one currently did so</li> <li>• Participation in tourism associations: 53.7% of surveyed household heads indicated participating in a tourism association</li> </ul> | E  | <ul style="list-style-type: none"> <li>• Participation in management decisions: Several interviewees in Yaxhá had leadership positions either on the COCODE or on directing boards for ASODESTY member associations. Some Yaxhá residents characterized their involvement in tourism as having their own business.</li> <li>• Participation in supervisory roles: 5 surveyed household heads held leadership positions in tourism either from serving on a board or managing their own business</li> <li>• Participation in tourism associations: 15.0% of surveyed household heads indicated participating in a tourism association</li> </ul> | SE | <ul style="list-style-type: none"> <li>• Participation in supervisory roles: Most participation in tourism in Socotzal by interviewed household heads was in Tikal National Park, followed by employment in restaurants. Some respondents who participated in tourism had supervisory duties. No surveyed household heads currently held tourism leadership positions</li> <li>• Participation in tourism associations: 10.0% of surveyed household heads indicated participating in a tourism association</li> </ul> |
| External institutions do or do not support CBT development | SE | <ul style="list-style-type: none"> <li>• External institutions promote CBT: Respondents described that international and domestic NGOs supported tourism training, technical support, and</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SE | <ul style="list-style-type: none"> <li>• External institutions promote CBT: Participants described that NGOs and government organizations, particularly CONAP and the municipality,</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SD | <ul style="list-style-type: none"> <li>• External institutions promote CBT: Respondents described that national and international NGOs, government, and educational institutions have</li> </ul>                                                                                                                                                                                                                                                                                                                      |

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|               |                                                                                                |   | <p>provided donations for tourism development in the community. They felt that external institutions were invested in conserving the area, describing the Peten as a “lung” because of the oxygen-producing forests.</p> <ul style="list-style-type: none"> <li>• Support does not meet expectations: Some respondents critiqued what they perceived as a lack of development in the community, or development for only select individuals given the level of international support for the concession. One felt that the emphasis on providing training opportunities was unnecessary because training would not feed a family if there were not jobs</li> </ul> |   | <p>supported ASODESTY and the community, for example, through capacity-building. The NGO Rainforest Alliance was currently funding tourism service providers wages for going to the visitor’s center to sell service to tourists. ASODESTY maintained connections with individuals working for local government. Some respondents mentioned revenues from when the TV show Survivor came to film in the area.</p> <ul style="list-style-type: none"> <li>• Support does not meet expectations: However, respondents also pointed out deficiencies or inappropriate support such as the need for improvements to the road or the desire for household-level projects rather than pig/poultry raising co-ops. One respondent described a plethora of NGOs as dividing the department and another described issues with external tourism companies scamming tourists.</li> </ul> |    | <p>brought projects to the community.</p> <ul style="list-style-type: none"> <li>• Perceptions of lack of support: However, they also noted that tourism-development projects were uncommon in Socotzal, and some projects fell apart because of lack of follow-through. Many described feeling abandoned by government institutions and authorities for tourism development in Socotzal and tourism promotion. Some described wanting legislation to make guides mandatory in Tikal to support a greater local benefit</li> </ul> |
| Environmental | low impact ecotourism activities and management plan vs. no environmental policies for tourism | E | <p>Community environmental management plan: The Cooperative maintains a sustainable management plan for the concession area and deliberately does not harvest around the tourism hiking route for aesthetic reasons.</p> <ul style="list-style-type: none"> <li>• Environmental challenges: Participants described concerns</li> </ul>                                                                                                                                                                                                                                                                                                                            | M | <ul style="list-style-type: none"> <li>• Community environmental management: The agreement between ASODESTY and CONAP specifies some environmental considerations about working in the park:</li> <li>• Park management plan: Yaxhá National Park has a management plan, although it is not up to date. Participants</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | NE | <ul style="list-style-type: none"> <li>• Park management plan: Tikal National Park has a management plan, although it is not up to date</li> <li>• Environmental challenges: Some park employees noted concerns with tourism in the park, such as graffiti or drone flying endangering birds. However, there were not</li> </ul>                                                                                                                                                                                                   |



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|  |                    |   | <p>with litter around the community and people doing laundry in the stream because there was not enough water at the public washing station. Yet, these environmental concerns were not directly attributable to tourism.</p> <ul style="list-style-type: none"> <li>• Park management plan: Mirador National Park has an (outdated) management plan.</li> </ul> |    | <p>described that the park is better monitored and protected in the present than in the past.</p> <ul style="list-style-type: none"> <li>• Environmental challenges: The park still faced challenges from illicit timber extraction, cattle ranching, and forest clearing on the private finca adjacent to the park. Some suspected the involvement of organized crime and narcotrafficking in the clearing of forest land on the parcel.</li> <li>• Improved environmental management: Some perceived that tourism and the agreement between the park and the communities lessened the tensions over the declaration of the Maya Biosphere Reserve and there was less illegal extraction and occupation in the park after the agreement. One respondent described that access to water in Yaxhá lessened pressures to wash in the lake, reducing sources of contamination</li> </ul> |   | <p>environmental effects of tourism in the community of Socotzal.</p>                                                                              |
|  | rubbish management | M | <ul style="list-style-type: none"> <li>• Service providers pack up all non-biodegradable waste during the hike, but there is still some litter around the community of Carmelita itself and some households burn trash.</li> </ul>                                                                                                                               | SD | <ul style="list-style-type: none"> <li>• The community participates in cleaning up the town and Yaxhá National Park as waste receptacles, but respondents lamented litter in the community and the absence of a waste collection system. One interviewee criticized a neighbor for dumping trash, while others thought that</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | D | <ul style="list-style-type: none"> <li>• Socotzal does not have a public waste management system. Most households burn inorganic waste.</li> </ul> |

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|                                            |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                            | people from outside the community littered while driving by. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| community conservation area and monitoring | E | <ul style="list-style-type: none"> <li>• Perception of conservation: Participants voiced a strong conservation ethic. Respondents described pure and fresh air in Carmelita and the surrounding forest.</li> <li>• Monitoring communal areas: The Carmelita Cooperative funds guardian positions at the touristic sites of Tintal, Mirador, and Puerto Arturo through tourism revenues, in addition to maintaining other monitoring/conservation jobs like fire prevention. The concession area is divided into a residential zone, and agricultural area, areas for sustainable timber and non-timber forest product harvesting and conservation areas.</li> </ul> | M | <ul style="list-style-type: none"> <li>• Perception of conservation: ASODESTY made a commitment to help protect the park</li> <li>• Monitoring: The community has a forest fire fighting committee.</li> <li>• Lack of communal land: However, given the organization of Yaxhá, there was not community land (even the school was on an individual's property) meaning that land-use decisions largely depended on individuals.</li> </ul> | M                                                            | <ul style="list-style-type: none"> <li>• Perception of conservation: Respondents did describe that economic necessity encouraged hunting in the park and one key informant described an incident where a suspected member of the Socotzal community deliberately started a fire in the park in protest after being repeatedly denied employment.</li> <li>• Monitoring: The community has a forest fire combatting commission that also helps, as necessary, prevent fires in Tikal National Park. However, participants also noted concerns about inadequate equipment.</li> <li>• Communal land: Socotzal holds some areas of communal land.</li> </ul> |  |
| natural environment utilized for tourism   | E | <ul style="list-style-type: none"> <li>• Nature-based tourism: Participants described the adventure tourism hike to Mirador as a more environmentally conscious type of tourism that the tourists preferred to train-based transportation to the park. They described that tourists went on the tour to avoid the sounds of the city, and to see nature. Respondents described attractions such as seeing the</li> </ul>                                                                                                                                                                                                                                            | E | <ul style="list-style-type: none"> <li>• Nature-based tourism: The vision of ASODESTY suggests links between utilizing the natural environment for tourism, sustainable development, and conservation.</li> </ul>                                                                                                                                                                                                                          | SE                                                           | <ul style="list-style-type: none"> <li>• Nature -based tourism: Respondents described access to natural capital for tourism, such as proximity to Tikal National Park, apiculture in the community, and birds and other wildlife.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                              |  |

|  |                                                          |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                                                                                                                                                                                                                                                             |
|--|----------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |                                                          |    | <p>sunset, wildlife (like bird species, crocodiles, and jaguars) and one participant described the high potential for avitourism at Puerto Arturo, noting that over 163 species of birds had been observed there during a study by technicians from the National Council for Protected Areas. The Mirador National Park management plan notes that major and minor archaeological sites are located within the concession area, and that the forest -based Petenero culture of Carmelita is also an element for conservation.</p> <ul style="list-style-type: none"> <li>• Environmental effects: Respondents did not mention concerns about environmental degradation from tourism</li> </ul> |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                                                                                                                                                                                                                                                             |
|  | feel positive toward conservation activities for tourism | SE | <ul style="list-style-type: none"> <li>• Interest in conservation: Several respondents emphasized the importance of protecting the forest and some noted that this also helped the economy, as tourists came to experience nature-based tourism.</li> <li>• Resistance to conservation: One respondent noted that some community members resisted environmental regulations and preferred to have a milpa where they wanted or got angry when they</li> </ul>                                                                                                                                                                                                                                  | SE | <ul style="list-style-type: none"> <li>• Interest in conservation: Various respondents described an interest in and importance of conservation and believed that participation in tourism lessened the need to convert forest land or extract forest products illegally. Conservation is a key component of ASODESTY’s vision.</li> <li>• Resistance to conservation: However, some still described that economic necessity would limit people’s abilities to conserve.</li> </ul> | SE | <ul style="list-style-type: none"> <li>• Interest in conservation: A few participants described efforts by institutions to teach the community about the importance of conservation and felt that employment lessened dependency on natural resource extraction.</li> </ul> |

|  |  |  |                                                 |  |                                                                                                                                                                                                                             |  |  |
|--|--|--|-------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|  |  |  | had to request permissions to extract branches. |  | <ul style="list-style-type: none"><li>• Promotion of conservation: ASODESTY guides offered environmental educational classes in schools and took children on field trips to the park for International Water Day.</li></ul> |  |  |
|--|--|--|-------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

## Appendix K: Empowerment focus group questions

### *English translations in italics*

Bienvenidos y gracias por aceptar reunirse conmigo. Mi nombre es Hannah Legatzke. Soy estudiante de la Universidad de Minnesota y estoy realizando un estudio, “Comparando los impactos del manejo de turismo en los sustentos y el empoderamiento comunitario,” en las comunidades de la Reserva de la Biosfera Maya con el objetivo de conocer los impactos del turismo en sus comunidades y las oportunidades que ustedes tienen para participar en esta actividad. El propósito de este taller es entender cómo el turismo puede contribuir de una manera mejor al empoderamiento en su comunidad y en otras aldeas donde llegan los turistas. La institución donde estudio ha trabajado previamente en la zona y ha apoyado a Rainforest Alliance y ACOFOP colocando información y dando recomendaciones sobre cómo mejorar los impactos del turismo en comunidades locales según las recomendaciones de los miembros comunitarios. Nosotros nos comprometemos a mantener sus respuestas individuales confidenciales y compartiremos los informes finales con ustedes para que ustedes pueden documentar los logros con el turismo en su comunidad y/o desafíos con turismo que quieren enfrentar. La información que usted nos brinde no afectará su relación con Rainforest Alliance, ACOFOP o la Universidad de Minnesota.

*Welcome, and thank you for agreeing to meet with me. My name is Hannah Legatzke. I am a student at the University of Minnesota, and I am conducting a study, “Comparing the impacts of tourism management on livelihoods and community empowerment,” in Maya Biosphere Reserve communities with the objective of learning about the impacts of tourism in the communities and opportunities to participate in tourism. The goal of this chat is to understand how tourism can better contribute to empowerment in your community and other towns where tourists visit. The institution with which I have previously worked in the area has supported Rainforest Alliance and ACOFOP by gathering information and providing recommendations of how to improve the impacts of tourism for local communities according to the recommendation of community members. We promise to maintain your individual responses confidential and share the final report with you so you can use it to document your community’s achievements in tourism or challenges with tourism you want to address. The information you share will not affect your relationship with Rainforest Alliance, ACOFOP, or the University of Minnesota.*

Les invitamos porque ustedes viven en Carmelita/El Socotzal/Yaxhá y quizás usted o algún conocido suyo ha trabajado o ha tenido contacto con turistas y sus opiniones nos ayudarán mucho en entender cómo el turismo puede ser mejorado según las necesidades de su comunidad.

*We have invited you because you live in Carmelita/El Socotzal/Yaxhá and you have perhaps interacted with tourists or seen your neighbors working in tourism. Your perspectives help us a lot to understand how tourism can be improved according to the needs of your community.*

Por esto, tenemos interés en cómo ustedes y las personas en su comunidad participan en el turismo y si han visto cambios por causa de tener turistas en su comunidad. No hay respuestas o

comentarios buenos o malos, todas las respuestas o comentarios son bienvenidos. Este es un taller participativo, así que por favor siéntanse cómodos(as) y libres en responder o comentar a las preguntas que haré. Yo estaré básicamente para escucharlos. Es por esta razón, que les pido me den permiso para grabar la conversación, que al igual que sus respuestas serán confidenciales, y solo serán usadas para fines de este estudio. ¿Puedo grabar la conversación? [sí o no]

*Therefore, we are interested in how people in the community participate in tourism and if they have seen changes in the community because of tourist visitation. There are no good or bad comments. All comments are welcome. This is a participatory conversation, therefore please feel free to respond to whatever question. I am mostly here to listen. With that in mind, I would like to ask permission to record the conversation. The recording will be confidential and only used for the purpose of this study. Can I record?*

Por favor, siéntanse libres de pararse, estirarse, o servirse una merienda cuando sienta la necesidad en cualquier momento de este taller o conversación.

*Please feel free to get up and stretch, serve yourself a snack or leave briefly when you need to during this chat.*

Opening: Para empezar, porque no seguimos el orden del círculo y nos presentamos (*si ya no nos conocen*) y describimos nuestra parte favorita sobre vivir en Carmelita/El Socotzal/Yaxhá.

*Opening: To begin, why don't we go around in a circle and introduce ourselves (if participants do not already know each other) and describe our favorite part about living in Carmelita/El Socotzal/Yaxhá.*

Empezamos con describir cómo es participar en turismo en Carmelita/El Socotzal/Yaxhá. *We will begin by discussing what it is like to participate in tourism in Carmelita/El Socotzal/Yaxhá.*

- Introductory: Actualmente, ¿cómo participan las personas en su comunidad en el turismo? ¿Antes de la pandemia? *How do people in your community participate in tourism right now? Before the pandemic?*
- Introductory: ¿Cuáles son los papeles y responsabilidades de miembros de la comunidad en el turismo? ¿Las personas en su comunidad participan en la toma de decisiones sobre el turismo? ¿Cómo? *What are the roles and responsibilities of community members in tourism? Do community members participate in decision making in tourism? How?*
- Key: ¿Quiénes toman las decisiones sobre el manejo de turismo en su comunidad? ¿Cómo participan miembros de la comunidad o no en la toma de decisiones sobre el turismo? *Who makes decisions about tourism management in your community? How do community members participate in decision making or not?*

Ahora, repasamos si han notado cambios en la comunidad que tiene que ver con el turismo. *Now, we will go over if you have noted changes in your community associated with tourism.*

- Key: ¿Ha habido beneficios económicos de turismo en su comunidad? ¿Si, sí, cuáles? ¿Cuántos? ¿Por persona? ¿Por familia? ¿Como están distribuidos los beneficios

económicos? *Have there been economic benefits of tourism in your community? If yes, what kinds and how much? What have been the benefits per person and per family? How are the benefits distributed?*

- Key: ¿Cómo ha impactado el turismo la convivencia en Carmelita/El Socotzal/Yaxhá? *How has tourism impacted the sense of community in Carmelita/El Socotzal/Yaxhá?*
- Key: ¿Han visto cambios sociales que tienen que ver con el turismo? Por favor descríbanlos. *Have you seen social changes related to tourism? Please describe any that you have noticed.*
- Key: ¿Cómo se sienten sobre la llegada o tránsito de turistas en su comunidad? *How do you feel about the arrival/transit of tourists in your community?*
- Key: ¿Están relacionados el turismo y el medioambiente? ¿Cómo? *Are tourism and the environment related? How?*

Finalmente, repasamos sus prioridades y perspectivas sobre cómo mejorar el turismo. *Finally, we will go over your priorities and perspectives about how to improve tourism.*

- Key: El empoderamiento es la capacidad de un hombre o una mujer de soñar, influir las circunstancias que les afectan y lograr sus metas. Tomando esta definición ¿Para ustedes, que significa empoderamiento? ¿De qué manera el turismo en su comunidad contribuye al empoderamiento o no? *Empowerment is the capacity of a man or woman to dream up and achieve his/her goals. Taking into account this definition, for you, what does empowerment mean? In what ways is tourism in your community contributing to empowerment or not?*
- Key: ¿Hubo cambios no esperados en la comunidad a causa de turismo? ¿Cuáles? *Have there been unexpected changes in your community due to tourism? What kind?*
- Key: ¿Cuáles son los desafíos con el turismo en la comunidad? *What are challenges with tourism in your community?*
- Ending: ¿Cuál es su visión para el futuro del turismo? ¿Cuáles serían sus prioridades para mejorar el turismo? *What is your vision for the future of tourism? What are your priorities to improve tourism?*
- Ending: En su opinión, ¿cuáles han sido los puntos más importantes sobre lo que hemos hablado hoy? *In your opinion, what is the most important thing or things that we have discussed today?*

## Appendix L: Participants' definitions of empowerment codebook

Bulleted-pointed items denote codes, followed by exemplary quotations.

- **Jobs:** Refiere al empoderamiento económico en turismo especialmente en oportunidades laborales
  - **143** [00:56:11] Este, llevar a vender el servicio de lancha todos. Entonces eso es empoderamiento. Entonces, bueno, está eso es como el desarrollo del lugar, porque el poder es poder hacer las cosas va, entonces empoderamiento es poder vender todo lo posible que se fue en el lugar.
  
- **Conocimientos:** Considera el empoderamiento como lo que uno sabe o se puede hacer
  - **121** [00:08:07] Bueno, el empoderamiento empoderamiento podría ser el turismo por todo lo que es el manejo forestal, es por los conocimientos que van desarrollando a través del mismo trabajo que uno va, va, va teniendo, va desarrollando las capacidades.
  
- **Acceso a educación:** personas perciben falta de estudios o capacitaciones (especialmente para ser guía) como un obstáculo a empoderamiento
  - **170** [01:00:19] Viera que. Volviendo a lo mismo de que. De que el estudio es la base, la base principal. Entonces la verdad es que uno que no ha tenido el estudio este se le pone un poco difícil trabajar con turismo. Porque por ejemplo, los guías de turismo ellos este sí se relaciona y tienen mucho que ver con turismo. O sea, sus sueldos vienen de ahí prácticamente. Pero uno que no, que no, que no, que no ha estudiado pues, no tienen la oportunidad, por lo menos ahorita piden un grado para poder sacar el curso con la capacitación de guía.
  
- **Futuro:** Considera que el empoderamiento enfoca en los jóvenes, niños, y generaciones futuras
  - **113** [02:00:43] Bueno, creo que entre los temas más importantes que hablamos fue la educación para nuestros jóvenes



- Power over: Es una definición negativa de empoderamiento donde la definición es más parecido a apoderarse y aprovechar de personas con menos poder
  - **037** [00:33:22] Pues el empoderamiento como pueda hacer, como la persona que está logística de que avenga y se apodere de los trabajos por donde nos pongamos. Pienso yo de que, pienso yo de que por mi rigor yo no le voy a dar su tour a ella, me voy a apoderar de eso, voy a apoyar[] a la persona que me parece. Es así.
  
- Logros: Considera logros personales o superarse
  - **97** [00:03:18] Bueno pues. Yo soy una persona que he logrado algunas metas de darle estudio a mis hijos, porque yo he tenido. Yo tengo ahorita 18 años de estar viuda y asimismo yo le he dado estudios, por lo mismo a mis hijos a dos hijos de esto mismo, porque he trabajado sobre esto, ¿no?
  
- Political: Refiere a empoderamiento como empoderamiento político, como haciendo alianzas con entes del gobierno
  - **116** [00:21:57] Podría decirse que es tener casi el control de la actividad. Algo que en los últimos meses se ha venido digamos fortaleciendo porque se han tenido que hacer alianzas para poder, para que esto está reconocido como los únicos prestadores de ésta, de este circuito. Que se han hecho alianzas con las, por ejemplo, con CONAP, con la misma gente interna nuestra, y eso nos permite tener ya el control, digamos, de hasta cierto punto de la actividad.
  
- Social: considera el empoderamiento como empoderamiento social, siendo parte de un grupo
  - **107: 0:20:12.5** El empoderamiento [] aquí en la comunidad habemos algunos que sí . Bueno por ejemplo yo en mi caso me asocie e inicie a la cooperativa como socio.
  
- Environmental: considera que el empoderamiento refiere a un compromiso de conservación o sostenibilidad

- **2** [01:00:31] Nuestras asociaciones tienen que tener socios responsables que estén comprometidos con la conservación de nuestros recursos. Porque podría ponerle como ejemplo un socio que solo le interese ganar plata y la parte de hacer turismo responsable y sostenible no le interesa. Entonces eso tenemos que tener mucho cuidado. Yo considero que. Me atrevería a decir que casi todos estamos en ese mismo fin.
- Respetar leyes: define el empoderamiento como el cumplimiento con normas y leyes y la gobernanza
  - **31** [00:13:34] Ellos siempre de los comunitarios tienen acercamientos de leyes que ya están establecidas y que debe de haber gobernanza de las [] **H** [00:13:45] Ok. **31** [00:13:46] Y eso les da empoderamiento a ellos, verdad? Es poder decir yo soy parte de un movimiento comunitario que protege el patrimonio natural y cultural y también obtengo beneficios por turismo por ejemplo