

## TCD Practitioner Grant Report

*Community-forest relationships:  
Research results workshops and a participatory mural in Maya communities  
in Mexico's Yucatan Peninsula*

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Degree: PhD in Forest Resources and Conservation

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Location of research: Felipe Carrillo Puerto municipality, Quintana Roo, Mexico

Dates of research: May – June 2022

Dates of practicum: March 15<sup>th</sup> – 28<sup>th</sup>, 2022

### Objectives

- 1) Return the results of a survey on the relationship of community members with the forest to three participating Maya communities (X-Yatil, Dzúlá, and Laguna Kana - Figure 1) via participatory workshops.
- 2) Organize and paint a participatory mural highlighting the past, present, and future of the community of Dzúlá's relationship with its forest.

### Study area

Dzulá, X-Yatil, Laguna Kana are three communally owned Maya *ejidos* in central Quintana Roo, Mexico. The *ejidos* are located between the towns of Jose Maria Morelos and the municipal capital Felipe Carrillo Puerto (each about a 50 minute drive away), and have a history of forest-based livelihoods combined with small scale traditional agriculture. Dzúlá (-88.41572, 19.60230) is a main producer of chicle and has a particular tradition of Maya resistance as the site of the last conflict of the Caste War. X-Yatil, Dzúlá's neighbor to the north, lacks cell service, making communication difficult, but it is more accessible from the highway. X-Yatil is a regional-level traditional Maya religious center and is known for its annual patron saint's festival which features the symbolic harvesting and planting of a "ya'axche" tree, the climbing of a greased pole, rodeos, dancing, household cooperation to offer food to the saints, and dancing with a pig's head. Laguna Kana, the southernmost of the three *ejidos*, is accessible via a road running southward through Dzúlá.

In May and June 2022, I conducted a community survey (n=176) on the relationship with the forest by age and gender in Dzúlá, X-Yatil, Laguna Kana. I conducted the study with a five-person team of young people from participating communities, with permission of the *ejido* authorities, and with IRB approval from the University of Florida (IRB# IRB202200700).

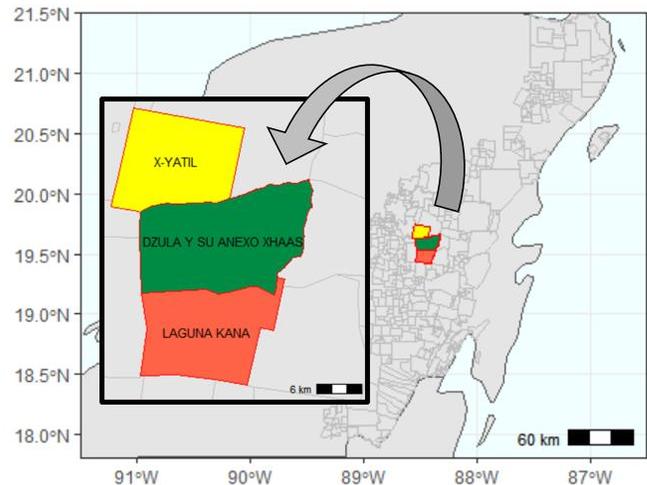


Figure 1: *Ejid*os of X-Yatil, Dzúlá, and Laguna Kana, Quintana Roo, Mexico. Data from Mexico's [Registro Agrario Nacional](#). Map created by Johanna Depenthal using R software.

## **Summarized methods**

### *Research results workshops*

I hosted four research results workshops (two in X-Yatil, one in Dzúlá, and one in Laguna Kana), assisted by members of my survey team. (An initial workshop in Dzúlá was cancelled due to a sudden downpour). I publicized workshops in X-Yatil and Dzúlá by posting flyers outside community shops and handing out flyers to community members (57 flyers in total), announcing the workshop over the community loudspeaker and, in Dzúlá, sharing the workshop flyer on a community Facebook page. The workshops opened with an introduction to the study topic, research questions, and study design. We then did an activity where either participants or the assisting team member, following community members' directions, placed cards representing different forest activities on a graph to indicate whether the activity was conducted a lot or a little more by adults versus by young people. We then compared workshop participants' categorization of the activities to the study results. I then shared the "emotional closeness with the forest" and average number of forest tree species named per group before sharing the "interest in knowing and participating more in the use and management of the forest" graph and opening the floor for discussion. My general conclusion was that young people participate less, feel less close, and know less, but still express interest in the forest.

### *Participatory mural*

I communicated pre-arrival with my survey team member Salvador, who is a talented artist, about the possibility of facilitating participatory murals in participating communities. Upon my arrival, we scouted potential mural locations in Dzúlá, got approval for the mural for local ejidal and municipal authorities, cleaned the wall surface, and met with a local high school teacher, contacted by Salvador, who had previously painted murals with her students. I provided the teacher with a prompt for designs for the mural proposed by students. After buying and borrowing all necessarily equipment, including scaffolding, we worked with the local students to design and paint the mural March 25th – 28th.

## **Main outcomes**

### *Research results workshops*

The first X-Yatil workshop (3/16/23) had an abbreviated format, as I was invited by the X-Yatil comisario to present results to a group of 16-18 male ejidatarios (including at least two survey participants!) attending a meeting regarding a CONAFOR program for forest plantations. Six men and six women, ages about late 40s and up, attended the second X-Yatil workshop on 3/18/23. Team members Salvador and Roger joined the presentation and translated and facilitated workshop activities in Maya. Eight women and two children attended the rescheduled Dzúlá workshop on 3/24/23 thanks to team member Melissa, who invited her aunts and female relatives to attend and also translated in Maya. My workshop in Laguna Kana (3/22/23) was only attended by the comisariado and the head of the ejido's tourism project (the comisariado had turned down my offer to come early to hand out flyers). Salvador accompanied me and translated the meeting. I left about 30 copies of my 'research results pamphlet' (a trifold brochure that summarized the results presented in the workshop) in the Casa Ejidal for their next meeting. The total number of attendants for all four workshops was approximately 42 people, plus my team members Salvador, Roger, and Melissa.

The survey results held few surprises for workshop participants: most were keenly aware of and concerned about young peoples' lower participation in forest-related activities and knowledge about

the forest. Participants' perceptions of who does forest activities more also seemed well aligned with the "reality" of who carries out activities, as determined in our analysis of self-reported participation in forest activities over the past month. While I think that the workshops went well, I wish I had been able to facilitate something more solutions-oriented. Participants did, however, seem surprised by the large percentage of young people who agreed or strongly agreed with the statement that they were interested in knowing and participating more in the use and management of the forest.

### *Participatory mural*

Our approximately 7 x 2.5 m mural on the community's abandoned primary school depicts the past, present, and future of Dzúlá's relationship with its forest, using a central design drawn by one of the students. The students were amazingly enthusiastic and committed, arriving early (often before breakfast) and staying late in the evening painting session. Multiple types of cultural knowledge were shared during painting and/or are publicly illustrated in mural, including the type of tools previously used for corn planting, the growth form of the corn plant, the change in house construction over time, and the correct order (Maya ts'aak, not ts'aak Maya) on the "maya medicine" book depicted in the mural. A community member who was formerly a chiclero drew the chiclero's face, corrected the machete grip (I had previously drawn the chiclero with one hand on the rope and one hand holding the machete), adjusted the rope position to be around the hips instead of the waist, and drew the chicle-collecting bag. The turquoise-browed motmot (known as the pajarito reloj, or 'clock bird' in Spanish) represents the passage of time. The mural includes a recognizable depiction of several community buildings, including the former primary school where the mural itself is painted. Community members and leaders responded very positively to the mural, and a Maya-language post about the mural on a community Facebook page was liked 77 times and shared 25 times.

I presented on both the research results workshops and the mural in an April 18<sup>th</sup>, 2023 Tropilunch.

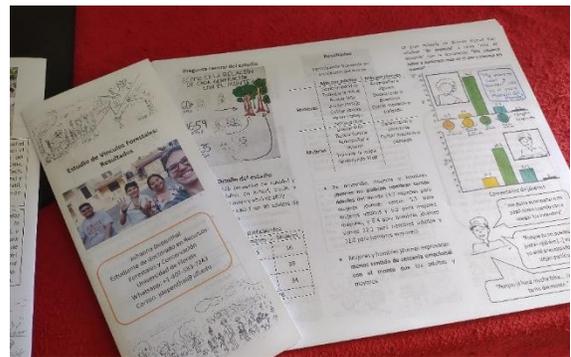
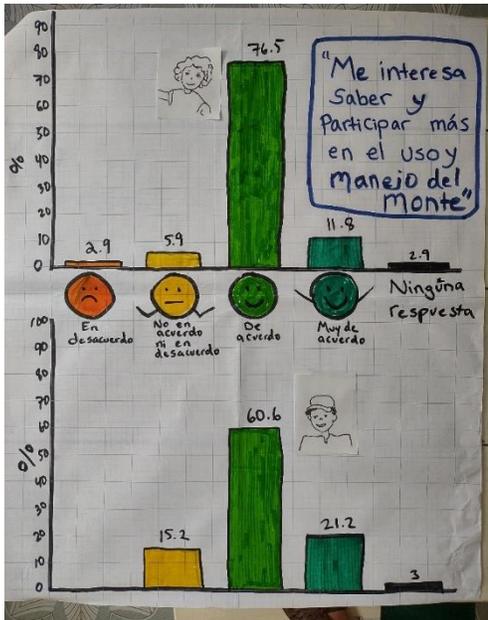
### **Changes to the initial proposal**

My initial TCD Practicum proposal was a mini-documentary film about chicle production, but I soon realized that the project was unfeasible due to limited technical capabilities and low responsiveness from the proposed partner institution. I also initially hoped to paint murals in all three participating communities, but had significantly underestimated the time and effort required for this scale of participatory artwork.

### **Acknowledgements**

I could not have conducted this research and practicum without the support, commitment, and enthusiasm of the survey team (Salvador Cima, Melissa Ake Santos, Roger Uitzil Cach, Andrés Jiménez Tec, and Yoni Dzúl Itza – Salvador also co-led the mural project), my host families in X-Yatil and Felipe Carrillo Puerto, the students from the Telebachillerato comunitario in Dzúlá and their teacher Gilda Loreila, community members in X-Yatil, Dzúlá, and Laguna Kana, my advisor Dr. Karen Kainer, committee members Dr. Geraldine Klarenberg, Dr. Wendell Cropper, Dr. Jose Antonio Sierra-Huelsz, and Dr. Trent Blare, and lab mates past and present. The survey was funded by the American Philosophical Society's Lewis and Clark Fund for Exploration and Field Research and TCD's Field Research Grant. The results workshops and mural were funded by the TCD program's Practitioner Grant. Permission was granted for the use of all photos.

Photos



Left to right, top to bottom: Youth interest in the forest graph; team members Salvador and Roger leading the forest activities activity; forest activities graph in X-Yatil; team member Melissa at the Dzulá workshop; participants in the X-Yatil workshop; results presentations flyers left in the casa ejidal in Laguna Kana.



Right to left, top to bottom: Students and Salvador working on the mural; final depiction of the chicleero; the pájaro reloj, representing the passage of time; students having breakfast on the scaffolding on Sunday morning.



Top left: students working by phone light to finish the mural on time; top right: the acknowledgements panel; bottom: the final mural (top level only – ground-level murals were pre-existing).