

LU'UM KUXTAL

Ecorise Mayab

OVERVIEW

As future environmental engineers, we are aware of the problems that climate change and its variants bring to our environment, negatively impacting our quality of life in unequal ways. Water, as an environmental service, has seen its efficiency and availability reduced in areas most affected by the ecological imbalance caused by human activity, impacting vulnerable communities in these regions most significantly.

About 70 kilometers from our city is Maxcanú, a town where we noticed this very issue. Lu'um Kuxtal was born from the desire to support this community in the management and distribution of water so that everyone can exercise their right to make efficient and responsible use of this resource.

GOAL

Our initial goal was to provide them with a rainwater harvesting system in a common area, due to the evident lack of access to water in their homes and the droughts the area has been experiencing.

CHALLENGES

Over the past few months, we were only able to visit the community once due to university responsibilities and time constraints. At the same time, it took a while to find advisors who could directly support us with this project, and it was more time-consuming and tedious than expected to establish communication with Maxcanú's local leaders.

TIMELINE AND PROCESS

- We immersed ourselves in the community by getting familiar with their customs and values. We conducted surveys in various households across different parts of the area to understand how they've perceived climate change and water access in recent years.
- We met some of the community leaders who provided us with demographic data, information on their current water access systems, and the rules that govern their distribution.
- We also reached out to organizations and analyzed how feasible their proposed support would be for us.

IMPACT AND OUTCOMES

- After surveying the citizens, we reached the following conclusions: People who live closer to the water source are better able to make use of it, storing it in tanks and covering secondary needs. This, in turn, reduces water availability for those living farther away. In conclusion, the problem doesn't lie in water access itself, but in the lack of awareness and empathy — which are the main factors behind the water management and distribution issue.
- They do, in fact, suffer from droughts, and their climate seasons have notably shifted in timing. The community didn't have an up-to-date climograph, so based on the data we received and using information from a nearby community 15 kilometers away, we created our own estimate.
- Finally, we partnered with *Centinela del Agua*, an organization that focuses precisely on the area we want to impact. Following their recommendations, we relocated the installation site of the water system to the church. We will also take advantage of future visits to implement talks and workshops to raise awareness, aiming to foster a sense of community and strengthen our relationship and responsibility with water.

POTENTIAL FOR ONGOING IMPACT

Our progress hasn't moved as quickly as we hoped up to this point, but we are now affiliated and more committed than ever to making this project a reality.

OUR EXPERIENCE

It's often believed that creating change in our environment is an easy task, when in reality it's much more complex than it seems. Visiting the community and witnessing the gratitude of the people for our interest in supporting them made us realize how deep and valuable the feeling of belonging to our environment can be.

We are deeply grateful to the PGC for opening its doors and supporting our desire to be part of the change. Thank you for showing us we are not alone on this path and for demonstrating that there are people in different parts of the world equally committed to making a difference. Everything we've learned throughout this challenge has been extremely valuable — not just for this project, but for our lives and our perspective on the environment. This experience motivates us to apply what we've learned and share the message about the concerning reality we face, as well as the urgent need to create change.