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Using ecotecnias for environmental education initiatives through the creation of an Environmental Education Center



The Ecochavos used camera traps to take photos of wild animals. The cameras captured photos of raccoons, opossums, squirrels, armadillos, foxes, wild boars, coatis, ring-tailed cats and a jaguarondi.



The Ecochavos took turns presenting their findings to students in the community to share their photos, discuss the threats to biodiversity and to practice their public speaking skills.

The municipality of Zacualtipán de Angeles, is one of the 8 municipalities that compose the Biosphere Reserve of Barranca de Metztitlán. Negative effects of climate change, contamination, and loss of natural resources are the most prevalent environmental issues in the municipality and in collaboration with the ejido of La Mojonera, the Universidad Tecnológica de la Sierra Hidalguense (UTSH), the Reserva de la Biosfera Barranca de Metztitlán (RBBM) and fellow Peace Corps volunteer, it was decided that creating an environmental education center would be an excellent way to address these issues.

The center would serve as an example of what a sustainable home can look like with the use of ecotecnias making it virtually self-sustaining and be a place of knowledge where students and researchers could stay while they do their studies as the forest is right in its backyard. The ejido quickly recruited the local university students and the reserve staff to help in her ambitious project. With the help of USAID funding, we were able to successfully turn this vision into a reality.

Through the building process of the center, students learned about climate change effects, climate change mitigation/adaptation, monitoring and conservation techniques and sustainable living. The students were given presentations about climate change and ecotecnias, then tasked with designing and implementing two ecotecnias, a solar water heater and fog water catchment system. They also participated in a two-day biological monitoring workshop where they learned about the types of monitoring done within the reserve and then were given the opportunity to implement the reserve's technique in fauna monitoring by installing camera traps. "This was an amazing opportunity because as natural resources conservation students this information is highly relevant to the type of work we want to be doing" said one UTSH student.

In the center we were able to implement a rain and fog water catchment system, a biofilter, cistern, solar panels, efficient wood burning stove, solar water heater, water efficient bathroom, and an eco-brick boundary wall. More than half of the ecotecnias involved in this project were either proposed and/or implemented by the university students. "This was a big project and we weren't sure how it was going to turn out but thanks to everyone's hard work it is looking great, I've invited several professors to look at the place and they have all been amazed at what we have done here" said RBBM office manager, Raul Gomez Villegas.

While the center still needs some minor cosmetic finishing touches to make it ready for its opening, everyone involved are thrilled with the turnout of the project. "I had a vision for this piece of land, to turn it into something that could an example of what others can do in their own homes to help our planet and this has turned out to be even better than what I had imagined. Now we just need to get ready for the opening and we hope to see everyone there." said ejido Bertha Ramirez Vera.