

Agroecology for Peace and Development
Sotuta, Mexico

Lake Forest College, May 2021- August 2021

Project leader: Mauricio Calderón Castro

Background and importance

Hunger, poverty, and environmental degradation are three closely related issues that deeply affect Mexicans living in rural areas. In the 1990s, through the North American Free Trade Agreement, Mexico opened up to international markets. However, Mexico's lack of infrastructure could not compete with the USA and Canada's agricultural industry, which deliver significant yields for lower prices. Over the following four decades, the agricultural landscape in Mexico changed profoundly. Many agricultural policies and incentives to support rural development were dismantled by the government.¹ As a result, small-scale farmers who previously found agriculture a profitable and sustainable way of life were no longer competitive against international markets.

This holds true in the indigenous village of Sotuta in Yucatán, southern Mexico, where this new economic reality has disrupted their traditional ways of life, women's local economies, and the environment. A lack of economic opportunity in the village often forces men and young people to migrate to nearby cities. In turn, mostly elders and women stay in the town, depending on their family members to send economic resources from the cities where they work to survive. This disruption in the family unit has also accelerated the loss of Mayan language and traditional knowledge. With youth migrating to look for economic activities elsewhere, we face the loss of valuable cultural practices. For example, most of the 'solares' or food gardens found at the back of the traditional Mayan house (which in the past were used for self-consumption) are now abandoned and many of them have become landfills due to a lack of proper waste management in the village. The coronavirus pandemic was a tipping point for the community, leaving most men without a job in nearby cities and leading to greater poverty and food insecurity. Our project focuses on recovering the traditional Mayan food gardens to contribute to food security in the village and we aim to build long-lasting peace by raising the economic standards and quality of life of the people of Sotuta by reviving indigenous Mayan knowledge, creating new economic opportunities for women and youth and promoting sustainable soil management and environmental conservation.

Project description and timeline

The project aims to alleviate the community's food insecurity and poverty by restoring Mayan cultural practices. Through a partnership with CULTIVA, a non-governmental organization promoting community development and agroecology in Sotuta since 2016, we will implement these efforts. I decided to implement this project in Sotuta for several reasons. I am Mexican myself so I will be able to quickly integrate in the local community. Additionally, a main coordinator of CULTIVA is a UWC Mexico alumna which has made our communication very effective.

We will partner with five families interested in restoring their *Solares*. These families have worked in the past with Cultiva, and they have already expressed their interest in being part of the project. We will purchase gardening tools and materials and build irrigation systems, cultivation beds, and a greenhouse. Our purpose is to give families the means to restore their family food gardens and activate the agricultural cycle and the local economy. To involve local youth in these efforts and promote economic opportunities for them, six young people aged 18 to 25 will receive training and workshops on sustainable food systems and work in the solares. The 6 selected individuals receiving this training have collaborated and volunteered with CULTIVA in previous projects.

The training and workshops will be divided into 6 different modules, one every two weeks. The first 2 weeks we will have an introduction on Agroforestry systems, the following 3rd and 4th weeks we will focused on food garden design using agroforestry principles, the 5th and 6th weeks we will have workshops on soil management, composting and fertilizers, the 7th and 8th week we will cover agricultural practices in syntropic agriculture and biomass generation, the 9th and 10th week we will focus on traditional Mayan agriculture practices, and the 11th and

¹ Poverty and food insecurity in the Mexican countryside. Figueroa et al p.18
<http://www.scielo.org.mx/pdf/textual/n71/2395-9177-textual-71-71.pdf>

12th week we will cover biodiversity conservation. The organization CULTIVA has agreed to help coordinate the training in partnership with local agro ecologists and farmers.

We will also organize “tequios”, or traditional community work, of around 12 people to help us rehabilitate the solares and share knowledge about sustainable agriculture with more local people. While we work to restore the food gardens hand in hand with families and local youth, we will also begin a strategy to re-activate the local economy by improving the local “Transformation Center” where we will process the surplus produce from the gardens and turn them into products of added value such as dehydrated fruits and vegetables, jams, preserved foods, flours, bread, etc. As a result, these products will increase food security as they become more long-lasting and become more profitable for the producers as CULTIVA devises a strategy to open new markets and local employment opportunities. A small percentage of the funds will be used to purchase materials needed to improve the transformation center and process the produce into artisanal homemade products for sale. CULTIVA oversees the transformation center, and through activating an economic cycle, we intend to create a regenerative loop to restore more solares in the future.

Timeline- subject to change due to unpredictable COVID-19 impacts on travel and safety concerns

Week	Activities
May 17th to 24th	Purchase of project equipment, visit solares and introduction to partner families and local youth
May 24th to May 30th	First Training and Workshops on Agroforestry systems with local youth
May 31st to June 13th	“Solares” (garden) rehabilitation and workshops on food garden design 1 tequio each week to build cultivation beds
June 14th to June 27th	Workshops on soil management, bokashi, composting and fertilizers 1 tequio each week to generate fertilizers and compost
June 28th to July 11th	Training on syntropic agriculture and biomass generation 2 tequios to build greenhouse
July 12th to July 25th	Workshops on Mayan traditional agriculture practices with local farmers
July 26th to August 2nd	Workshops on biodiversity conservation and Food processing center equipment installation

Prospects for future impact

In the absence of Davis Projects for Peace, our partner NGO, CULTIVA, will ensure the future of this project. The investments in human capital and infrastructure in Sotuta will have a long lasting impact. We hope that the increase in agricultural produce in the “solares”, the improvement in the “transformation center” as well as the investment in human capital among the local youth will encourage the community to preserve Mayan agricultural practices while also lifting the living standards of the community. Our project will hopefully serve as a model for other villages in the region.

Expected outcomes

- Establish a long term partnership between Sotuta’s youth and Cultiva for future endeavours
- Providing short and long term sources of income and food security for the village
- The revitalization of Mayan culture and the preservation of a sense of communal unity among the people of Sotuta
- Restoration of 5 Solares
- Improve the local transformation center
- Develop local economic opportunities for women and youth

Personal background and qualifications

Mauricio Calderón Castro is Mexican and a freshman at Lake Forest College. He is a Spanish native speaker and is a UWC Mostar alumni. He has experience working with rural communities in Mexico and was the Environmental group leader for the two years at UWC. These experiences have provided him with the leadership and communication skills to be a successful leader and inspire others.