

## **Semillas Sostenibles (Sustainable Seeds)**

Central Valleys, Oaxaca, México

May 15<sup>th</sup> - July 31<sup>st</sup>, 2019

University of North Carolina at Chapel Hill  
Project leader: Maya Weinberg, USA

University of the Americas in Puebla  
Team member: Paulina Covarrubias Álvarez Mexico

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### **Background and Project Goals**

Mexico's food system has been implicated by the country's drug war that has been waged since 2006. Concurrently, Mexico has reached its highest levels of inequality and extreme poverty in decades, in part resulting from the country's rural food producers being in direct competition with imports (Villareal 15, 2010). The Mexican government put subsidies in place for several years following the North American Free Trade Agreement, encouraging many of them to cease their crop rotations from amaranth, sorghum, chile, and beans in favor of producing only corn (Villareal 11, 2010). When the subsidies ended and Mexican corn was exposed to international prices, small-scale farmers throughout southern Mexico lost their major source of income. Furthermore, the seeds of their non-corn crops were lost due to their lack of annual propagation. Children of farmers in Oaxaca are now targeted by cartels that offer higher wages to produce poppy--the key source of heroin, opium, morphine and codeine--which fuels the drug war (Ospina et. al. 9, 2018). Working with cartels divides families and communities and puts the lives of those involved at risk of the extreme violence they use to maintain control. The resulting divisiveness and distrust has disrupted systems of collaboration that had existed to promote communal and shared work. It is this disruption of the communal fabric, the depressed economic incentives, and the degradation of food sovereignty in these communities that motivate this project.

These issues were brought to our attention last summer while we spent a month interviewing 30 corn farmers to support Maya's honors thesis on the decline of subsistence farming and the change in attitudes of youth towards traditional diets in Oaxaca, México. Our gatekeeper for these interviews was Puente a Salud Comunitaria, an organization that creates initiatives to increase food autonomy in Oaxaca. During our analysis of these interviews, we identified three goals that our initiative will address: (a) to explore economic incentives to keep young farmers in the community, (b) to organize and solidify a platform of collaboration among growers to share farming tools and plan communal work, and (c) to develop strategies to increase interest among youth towards the traditional local food system.

### **Project Description**

In the past, Puente has worked with a few farmers in Oaxaca to promote the production of amaranth, a crop native to the region that farmers ceased planting because of policies that economically incentivized corn farming. Amaranth has recently gained popularity as a superfood, both in Mexico and internationally, selling for significantly higher prices than other crops and proving resilient to drought (Iowa State University, 2010). With this knowledge, and Puente's support, we would like to create a seed bank and educational gardens that would address the three goals identified by the interviews with community members. By providing seeds and educational resources to grow amaranth, we can address the need for a higher and more reliable source of income. Reinforcing a platform for collaboration will be addressed through the seed bank's use as a space for gathering, discourse, and resource-sharing across and within four towns. Finally, the educational gardens will serve as a tool to restore value to local production which is being undermined by the import and easy availability of processed foods. We believe this will restore food security and support the local economy based on the communities' common good.

We have discussed with Puente how this initiative will address the identified goals while maintaining the cultural integrity of the region, in addition to drawing on the pre-existing skills of farmers--including their market relationships. The seed bank will be a collaborative project among four towns where we conducted interviews and identified interest, namely; San Sebastián Xocchililco, Santiago Suchilquitongo, San Isidro Zautla, and San Pablo Etla. The seed bank will be constructed in Villa de Etla, a town within 20 minutes of our four community partners in which we have located a building space that previously functioned as a food pantry and is for sale. We will also create a leadership board with representatives from each of the communities that will be used as a platform for discourse, collaboration, and determining the membership system of the bank. Finally, the educational garden in each town will grow three varieties of amaranth and be run by Puente volunteers, providing youth from the community

with the opportunity to learn about the significance of amaranth in their heritage through cooking demonstrations while farmers have the opportunity to learn about production methods. We will have access to volunteers from Puente's student affiliate at the Universidad de la Sierra Sur (USIS) in Oaxaca throughout project implementation.

#### **Phase 1: Committee Formation, May 15th- June 1st**

- Visit communities to gauge interest by farmers for membership of the seed bank and create a leadership board based on Puente's relationship with each community
- Meetings at Puente's headquarters in Oaxaca City with members of the communal leadership board
- Create promotional materials for the seed bank and gardens

#### **Phase 2: Seed Bank Preparation, June 1st- June 15th**

- Convert the purchased space in Villa de Etla into a seed bank with the help of students from USIS.
- Purchase storage containers and supplies that will make the space welcoming as well as functional.
- Meet with farmers who have piloted the production of amaranth to purchase seed stock from them.

#### **Phase 3: Development of Educational Gardens, June 15th-July 1st**

- Work with staff members of Puente to prepare the land for amaranth planting.
- Plan and create educational resources that will accompany the garden including informational, waterproof posters that will be placed alongside each variety.
- Create cooking programs and purchase supplies that will be aimed at children of amaranth producers to share ways of cooking amaranth in community members' homes and lessons on its history in the region.
- Programs will be designed with Puente staff who will carry on their implementation after the summer.

#### **Phase 4: Implementation, July 1st-31st**

- Seed bank opens at the beginning of the month to coincide with cessation of the temporal fall rains
- Educational gardens will open and be used (a) to give demonstrations to farmers on the planting process of amaranth and (b) for cooking demonstrations to community youth to learn more about its uses.
- We will facilitate these classes along with Puente staff who will continue them after we return home.
- Each of the gardens will open with a community celebration, including foods made with amaranth.

#### **Expectations, Sustainability, and Growth Potential**

While this project will begin in the Central Valley's region of Oaxaca with the seeds of one crop, our goal is that the seed bank and educational gardens will be replicated in other parts of the state and southern region of the country. Semillas Sostenibles will hopefully become part of a network organization in which different groups, civil associations, and nongovernmental organizations work together to promote peace, health, and autonomy in the region. Additionally, we hope that this bank will be able to support other crops endemic to the region that yield higher prices at the market, such as sorghum and specialized herbs and spices. These modes of sustainability and growth will be overseen by Puente and their student volunteer affiliates. When the funds of the Davis award have been fully invested in the project, Puente has agreed to take on additional expenses that may arise, such as the purchasing of additional seed storage from their general operating budget. They will also work with beginning amaranth farmers to gain market access. To maintain the supply of seeds in the bank, each member will be asked to contribute slightly more seeds during their harvest than they took out. This mechanism will be determined by the bank committee. The operation of the educational garden program will be continued by Puente staff and volunteers after the summer, with different programs addressing different parts in the production process. Puente will keep track of the growth of the seed bank, gardens, and overall success of the project by conducting annual interviews to assess the impact on youth and community interest in amaranth production, rates of emigration to work for cartels, and increased production of amaranth. If successful, the project will become a part of the daily lives of people in the Central Valleys of Oaxaca, teaching youth to recreate a stronger bond with their communities' traditional diet and providing a tool for sharing their knowledge that both strengthens and diversifies their local economy.

*Amaranth*. Iowa State University Extension Service. <https://www.extension.iastate.edu/alternativeag/cropproduction/amaranth.html>  
Villareal, M A. (3 June 2010) *NAFTA and the Mexican Economy [PDF]*. Congressional Research Service, 11-14. Retrieved from [fas.org/srgp/crs/row/RL34733.pdf](https://fas.org/srgp/crs/row/RL34733.pdf).

Ospina, Guillermo A, Hernandez Tinajero, Jorge (Feb. 2018), et al. *Poppies, Opium and Heroine: Production in Colombia and Mexico [PDF]*, 9. Transnational Institute, [www.tni.org/files/publicationdownloads/poppiesopiumheroin\\_13042018\\_web.pdf](https://www.tni.org/files/publicationdownloads/poppiesopiumheroin_13042018_web.pdf).