AGRO-ecology Exchange

Ideas in Practice

By Rachel Northrop

In November 2018, a delegation from Mexico traveled to Nicaragua to take part in the farmer exchange portion of the Assessment of Diversification Strategies in Smallholder Coffee Farms in Mesoamerica project. Less than a year later, in August 2019, five representatives from PRODECOOP in Estelí, Nicaragua, traveled to the CESMACH cooperative in Chiapas, Mexico, for the second half of the exchange. With both halves of the exchange complete, participants reflect on the experience and on how they are putting ideas gleaned from the exchange into practice. »

IN ZAPATA, CHIAPAS with CESMACH cooperative farmers and visitors from ECOSUR, the Univeristy of Vermont, Community Agroecology Network, industry partners from Equal Exchange, and cooperative leaders from PRODECOOP Nicaragua.

ESTABLISHING AN EXCHANGE FORMAT

In addition to the two cooperatives, the project also included four universities—ECOSUR Mexico, Universidad Nacional Agraria Nicaragua, Santa Clara University in California, and University of Vermont—and one nonprofit, the Community Agroecology Network (CAN) for a total of seven participating organizations.

The universities' involvement speaks to the project's multifaceted nature; the goal is as much to develop new strategies for agroecological diversification on coffee farms as it is to critique and improve the participatory action research methods that generate those strategies. Henry Duarte Canales, Agronomy faculty at UNA Nicaragua, describes the five aspects of the project as "diversification, food security, gender equality, resilience to climate change, and beekeeping."

"These five axes are linked," he says, and are also the areas where both cooperatives wanted to learn from each other.

Leticia Velasco López, CESMACH Board President, sees these dimensions come together when producers visit each other's farms.

"When I went to Nicaragua, I saw many things I shared with everyone here in Mexico," she says. "I think the same was true of our colleagues from Nicaragua. They saw coffee fields planted with vegetables and for me it was motivating to see what CESMACH's members were already doing."

RECONSIDERING FOOD

One of the most important outcomes of the exchange in Mexico was the realization that plants that grow in both places are consumed as food in Mexico while being disregarded as weeds in Nicaragua. This not only showed the Nicaraguan participants a new food source to share with their cooperative back home, it served as a reorienting reminder to take stock of resources that are already available.

"In Mexico, I saw that the same weeds we burn and chop down with herbicides and machete, they cook and eat. They could serve us too," says Duarte. "We eradicate hierba santa [also called hoja santa] because we aren't used to thinking of it as food. I've spoken with many students who live in the mountains and have gone back and shared this idea with their families."

Because Duarte works both with students pursing a degree in Agroecology and with PRODECOOP's staff and »

PHOTO BY CARMEN J. CORTÉZ

members, the ideas from the exchange have a wide reach. Part of the exchange's design is to involve diverse voices and perspectives so that strategies can circulate in new ways.

"I work in PRODECOOP's finance department," says Yusmari Arauz. "Maybe it's not very common to be in the fields, but through the project I've been involved in this aspect too. It's very important, as the one to verify everything that's on our documents, to see it take place.

"Most notable in Mexico," she continues, "was the variety of plants that families use to complement the nutritional value of their meals. Seeing their use of hierba mora, hierba santa, and chipilin motivated me to try to implement something similar."

One of PRODECOOP's project coordinators, Rudis Antonio Espinoza Bejerano, had a similar reaction.

"We saw the number of plants they make the most of," he says. "Maybe we use them in Nicaragua as organic fertilizer or animal feed, but we learned they have high concentrations of protein and can be a substantial part of our diet."

PHOTO BY MATEO MIER Y TERÁN GIMÉNEZ CACHO

The CESMACH hosts felt that the exchange fulfilled its goals as they watched their colleagues make these realizations.

"Our companions from Nicaragua learned about plants that they recognized but didn't consume as food," says David Armando Anzueto Coutiño, a community facilitator with CESMACH and a honey and coffee producer.

The exchange encourages producers to think more broadly, beyond relying solely on coffee as a cash crop, and to rediscover the natural abundance possible from farms managed using diversified agroecology strategies.

FINE-TUNING COLLABORATIVE ROLES

"Coffee is one of the least diversified crops in Nicaragua," explains Duarte. "The idea of the project is that by diversifying their farms a little more, farmers can have access to food during periods of crisis."

Duarte notes that UNA's biannual faculty summit, where professors share their research with one another, is an opportunity to integrate the project's findings into teaching approaches.

"How can we bring this information back to students?" he says. "Most are from the countryside, and they take what they learn here back to their families."

Agronomy courses teach how to grow a crop, but what if growing that crop really well—by productivity and quality metrics—still leaves farmers hungry? Agroecology courses look beyond the agronomics of a crop to the potential of full farm and community ecosystems to provide for those who live on and from the land they farm.

The exchange makes it possible for people to learn from others in the same roles in different places, namely professors, cooperative staff, and cooperative members also acting as community facilitators. Coutiño of CESMACH was "inspired by the cooperativism they have in Nicaragua. They support more than just their members through schools and other services."

Similar to Coutiño, Bernardo Roblero Perez is also a CESMACH honey and coffee producer serving as a community facilitator.

"The most interesting part of the exchange was the visit to the farms [in three communities of the Sierra Madre: Zapata, Vista Alegre, and Laguna del Cofre]," he says. "As a facilitator, we don't always have time to look closely at what's already growing. We could see the variety on one piece of land."

Having visitors provides an opportunity for the hosts to take stock of their own operations and note either what is working well or what could be revitalized. Both CESMACH and PRODECOOP present a remarkable willingness and openness to change. One of the strengths of the exchange program is that it frames the discovery of areas ripe for improvement as something to be excited about. Participants are motivated to find areas they can tweak and new practices to implement.

DIVERSIFIED AGROECOLOGY IN PRACTICE

Developing better research methods is one of the exchange's core tenets, and the cooperatives are eager to implement practices learned from researchers to better understand their members: what they are already doing, what their needs are, and how to address them.

"Some producers lost 60 to 90% after the leaf rust epidemic and we're trying to recuperate quality," says PRODECOOP's Bejarano. In Mexico, CESMACH used a producer survey model to "make observations of plants that were resistant after the leaf rust attack, essentially breeding their own local variety. They've propagated seeds and given them to producers."

Duarte also noted the difference between CESMACH's centralized nursery and the Nicaraguan tradition of producers saving their own seeds: "If the plant is healthy when it goes into the producer's field, you know it will give good production. Some producers here who make their own nurseries have problems with nematodes and bacteria."

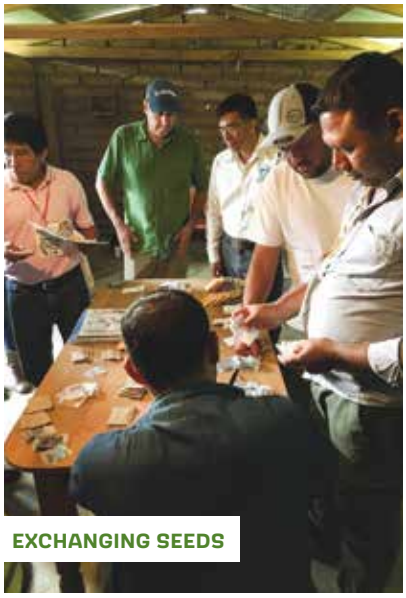
According to Bejarano, "from what we've seen, there is not better solution than plants adapted to climate change in their own zones." The next step is to create focus groups by zone "to identify resistant plants in that soil and at that elevation."

Surveys, record keeping, and documentation are crucial skills to implementing diversification strategies. »

RESEARCHERS & PRODUCERS

from chipilin, pacaya, mucuy, and hierba santa."

While this iteration of a farmer-to-farmer exchange took place between Chiapas and Estelí, there are similar exchanges happening in other places, in cities as much as on rural farms. In Miami, for example, a group called Buenazas created a free urban foraging guide to Little Haiti and hosts walks to teach which wild plants are edible. Overtown Green Haven Project grows produce in an abandoned lot to provide free food to neighbors and teaches how to cook vegetables that might be unfamiliar. Though the Assessing Diversification Strategies project is specific to coffee agroecology, the idea of exchanging cross-cultural food cultivation practices and recipes can be applied anywhere; the age-old practice is finding new roots as we all face threats from rising food costs and changes in climate.



EXCHANGING SEEDS

DOÑA CATALINA prepares the harvest from her farm.

"We're creating a diagnostic of edible plants to see what people are using and what they aren't," says Bejarano. "We don't have that data. We have very little information about what else we can grow because we've been focused on basic grains like corn and beans. It's not just about eating; it's about eating healthy."

Acknowledging the correlation between health problems affecting PRODECOOP members and imbalanced diets, he says, "We're preparing a register of recipes to possibly promote in the future."

Beyond the recognition that plants considered weeds are in fact nutrient-rich and very much edible, the other biggest takeaway from the exchange was the exchange of recipes. It is one thing to know that a plant is full of protein and another thing to know how to prepare it.

"We shared recipes," reflects PRODECOOP's Arauz, "including the name of each plant and how to cook it."

The delegations also shared new ways to prepare familiar foods.

"We were excited to try their version of malanga, which in Mexico they eat with sugar and call 'camote,' while in Nicaragua we cook with salt and serve with cream," says Arauz. "We also learned to make tamales

In Mexico, CESMACH's members are ready to get to work.

"Based on what I learned from the exchange," says Coutiño, "I want to plant a patio garden behind my house."

According to board president Lopez, "we accomplished even more than we planned to! I've already gotten chickens and I want to start growing mushrooms. I'm still harvesting chayote. We all fought for this exchange to turn out well."

PHOTOS BY ALEJANDRA GUZMÁN LUNA (TOP AND RIGHT), MARTHA CASWELL (BOTTOM LEFT)