Campesino-a-Campesino Pedagogy, Peasant Protagonism, and the Spread of Agroecology:

A Multi-Site Case Study

Roseann L. Kerr

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CAMPESINO-A-CAMPESINO IN SOUTHERN MÉXICO

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Abstract

As more actors embrace agroecology as an alternative to industrial agriculture, it is important to recognize that the ways in which agroecology are taught and learned have a profound effect on whether or not the spread of agroecology will align with the goals of food sovereignty. *Campesino-a-Campesino* (*CaC*), or peasant-to-peasant, is a horizontal, constructivist pedagogy responsible for spreading agroecology among *Campesinos/as* across Latin America in the 1980s and 1990s. *CaC* is characterized by knowledge exchange between peers—a process of collective reflection and action through which peasants share agroecological practices and innovative solutions to problems. The purpose of this study was to investigate both how *CaC* promotes peasant protagonism and what makes *CaC* a unique catalyst for spreading agroecology.

Using critical educational ethnographic methods, this case study analyzed *CaC* in practice in five communities in Calakmul, Campeche, Mexico, supported by the NGO *Fundo Para La Paz* (FPP). Through in-depth interviews and member reflections with promoters, facilitators, coordinators and community group members, as well as observations of agroecology workshops, a case was formed to illuminate socio-cultural and socio-political conditions of engagement/disengagement, the motivations of *Campesinos/as*, and pedagogical tools of *CaC* which influence the adoption of agroecology practices.

The data revealed that these communities were contributing to their food sovereignty by adopting agroecological practices learned through *CaC* processes. After a year as promoter guides, Indigenous women saw themselves as protagonists in their communities. Guiding principles that fostered a culture of participation countering the hegemony of paternalism included (a) promotion of Indigenous knowledge, languages and culture, (b) a focus on relationship and capacity building, and (c) a gradual transfer of responsibility toward community self-sufficiency. In the transition toward agroecology, hands-on workshops, on-farm exchanges of
experience with knowledgeable peers, and promoter guide implementation of practices were important. These results point to CaC’s potential to destabilize the structures of development and agricultural education, and create decolonial action by changing who has the power to create goals and lead discourse. Based on this case study, it is recommended that actors promoting agroecology use CaC pedagogy as a way to foster food sovereignty in Campesino/a communities.
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<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ANAP</td>
<td>Asociación Nacional de Agricultores Pequeños (National Small Farmers Union of Cuba)</td>
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<tr>
<td>CaC</td>
<td>Campesino-a-Campesino</td>
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<tr>
<td>CT</td>
<td>Community Technician</td>
</tr>
<tr>
<td>Coord.</td>
<td>Coordinator</td>
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<td>Int.</td>
<td>Interview</td>
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<td>Fac.</td>
<td>Facilitator</td>
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<td>F. Int.</td>
<td>Follow-up Interview</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FFS</td>
<td>Farmer Field Schools</td>
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<td>FPP</td>
<td>Fondo Para La Paz</td>
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<tr>
<td>FPR</td>
<td>Farmer Participatory Research</td>
</tr>
<tr>
<td>LVC</td>
<td>La Vía Campesina</td>
</tr>
<tr>
<td>P.</td>
<td>Participant</td>
</tr>
<tr>
<td>PESA</td>
<td>El Programa Especial Para la Seguridad Alimentaria (Special Food Security Program)</td>
</tr>
<tr>
<td>PG</td>
<td>Promoter Guide</td>
</tr>
<tr>
<td>PPM</td>
<td>Pan Para el Mondo (Bread for the World)</td>
</tr>
<tr>
<td>PRA</td>
<td>Participatory Rural Appraisal</td>
</tr>
<tr>
<td>PROCAMPO</td>
<td>Apoyos Directos al Campo (Direct Countryside Support)</td>
</tr>
<tr>
<td>T.</td>
<td>Teacher</td>
</tr>
<tr>
<td>MR</td>
<td>Member Reflections</td>
</tr>
<tr>
<td>SMR</td>
<td>Staff Member Reflections</td>
</tr>
<tr>
<td>SAM</td>
<td>Sistema Alimentario Mexicano, (Mexican Food System)</td>
</tr>
<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
</tr>
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Chapter 1: Introduction

My first memory is the sound of the dripping of whey from a cheese cloth into a metal bowl below. We raised goats for milk and lived off-grid, with a propane fridge and a woodstove. My mother made goat cheese and bread every day. When they started a family, my parents joined other university educated North Americans in the ‘back to the land’ movement of the 1960s and 1970s. Now retired, they continue to grow a large market garden. My interest in the lived realities of Campesinos/as cannot be separated from my own upbringing on what some might call a ‘homestead’ in rural Ontario. I am a 5th generation settler Canadian of mixed Irish, Scottish, English, and Welsh descent. I have a vivid memory of learning about the invention of electricity in elementary school and the accompanying realization that I had been living under the false assumption that everyone else had the same upbringing as mine. Compared to my peers, my upbringing in rural Ontario, Canada, was unconventional. I had believed, up until that point, that electricity had been recently invented, when my family and I moved from the old farmhouse at the back of the acreage to the old schoolhouse by the road, which was equipped with electricity and running water. Although I only experienced the ‘homesteader’ lifestyle for a short period of my life, I believe these early years have affected the way I approach life and research. I recognize that my upbringing as a child of homesteaders in a community of small dairy farmers have obvious connections to my interest in peasant and agrarian studies. While others are cynical about the state of the world, I contend that there are alternative, fulfilling visions being created and lived in the world each day. My intention is to use my privilege as a researcher, whose writing could have a global audience, to advocate for those whose voices are not often privileged. Those who are simply living the realities of their own lives, but due to their marginalized status, are not often asked for their opinion of how things are or how they should be or might be.
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My work as a program developer and facilitator in the food movement in Canada has brought me to doctoral work with a focus on educational practices that promote ecologically sustainable food production in the global South. I came to my interest in Campesino-a-Campesino pedagogy through a search for research on contemporary examples of Freirean pedagogy. Upon re-reading Freire’s *Pedagogy of the Oppressed*, I began to reflect on how those of low socio-economic status are regarded in Canada. Freire’s (1970) characterization of oppressor’s view of poor people as lazy and incompetent rings painfully true to my life experiences working with families living on low income in various cities and rural areas in Canada and the USA. It is still common for blame-placeing questions to be posed by those who have more, such as, “Why can’t they just get a job? Why didn’t they try harder in school?” Freire (1970) believes the principle of subjectivity leads the oppressed class to unconsciously adopt the view of reality, roles and purposes that the dominant class set out for them, leading to internalization of the oppressor’s worldview. “So often do they hear that they are good for nothing, know nothing and are incapable of learning anything—that they are sick, lazy, and unproductive—that in the end they become convinced of their own unfitness” (Freire, 1970, p. 49). I was surprised by the similarities between 1970s Brazil and present day Canada, strangely naïve to the persistence of oppressive forces in the North American context, even after three years working in the food justice movement in Ontario and many years working with children of families living on low incomes in urban areas in Canada and the USA.

In Meek and Tarlau’s (2016) framework for Critical Food Systems Education, they critique garden-based learning programs, such as those I designed and led in my three years of working with families living on a low income at The Table Community Food Centre in Perth, Ontario. They claim that, even within the food justice movement, a garden-based education
program can still operate with inherent class assumptions of access to land, and/or economic purchasing power to obtain healthy ingredients. Viewed through this lens, the expected outcomes of these programs, including increasing instances of cooking from scratch at home, are revealed as unattainable for participants. The assumption of choice is made without addressing the question of access to healthy food. I realized that my understanding of the political issues in the food system was limited to the power of consumer choice. As Meek and Tarlau (2016) pointed out, even within a community food justice organization, my programs had a, “focus on the local at the expense of the larger political and economic context and [a] construct of food problems as questions of consumer choice” (p. 254). Consumer choice issues are not relevant to populations with no purchasing power. Framing the debate in this way can make people feel helpless. I needed to expand my knowledge and understanding of global food systems and how they influence local assumptions of choice.

Critiquing my own work led my research interests toward alternatives, including Freire’s (1970) conception of consciousness-raising education where educators are partners or allies in the struggle against structures of oppression. Inspired by Freire’s, *Pedagogy of Hope*, I began to search for contemporary examples of Freirean pedagogy in practice, which honour knowledge that has been marginalized. I came across a paper by Khadse et al., (2017) about the Zero Budget Farming movement in India, which led me to several studies of CaC pedagogy in Latin America. Influenced by reading this literature and Lappé and Collins (2015) edition of their book *World Hunger: 10 Myths*, my focus on food security quickly shifted to food sovereignty, as I began to see issues of poverty as a question of uneven distribution of abundant resources. A key issue I noticed across populations struggling in poverty was the negotiation of autonomy and dependency as it relates to human agency.
Having experienced as a young child what could be described as a peasant lifestyle, I see the loss of food skills and control over our food system as dangerous. Upon discovery of a worldwide peasant movement that seeks to promote the rights of those in the global South who continue to practice this lifestyle, I was immediately intrigued and wanted to know more.

My approach to this topic reveals my research bias toward exploring hopeful alternatives. In the words of Fine et al. (2003), “social researchers must create vision and imagination for ‘what could be’” (p. 192). I believe we have much to learn from Campesinos/as engaged in social movements. My worldview is close to what Hansen (2013) calls discerning cosmopolitanism and what Noddings (2012) explains as ecological cosmopolitanism. Cosmopolitanism (Hansen, 2013) means being open to learning from people who have different views and values and moving away from valuing different ways as inferior. As Hansen (2013) explains, field-based research can shine a light on, “how creativity in response to change materializes in diverse, unscripted forms from which other people—including from very different cultural origins and dispositions—can learn and benefit” (p. 3). My view also echoes that of Noddings’ (2012) concept of ecological cosmopolitanism in its recognition of interdependence of people and problems across national boundaries and its emphasis on maintaining diversity in our conceptions of society.

My relationship with México, and specifically the region in this case study, dates back to 2005 when I was traveling through México and met my husband. Since he was living in Campeche and working in Calakmul at the time, I returned to this region for several months at a time, spending almost a year in total between 2005 and 2007 learning Spanish and participating in internships. During my time living in México, I became skeptical of judgements of a region’s level of ‘development’ as highly subjective and relative, depending on which aspect of society you focus on, and with whom you speak. In specific reference to food skills, in Canada, in many ways, we are lost. We are steeped in an industrial agricultural system that has allowed for a
widespread loss of food skills across our population. So deep is this loss that chefs have become elevated to celebrity breed, seen to be born with special skills, not accessible to all. Children’s books need to be produced and promoted to teach children that the food they eat does not spontaneously materialize in the grocery store. Further, our conception of food skills goes only as far as skills in the kitchen. To most Canadians, at least settler Canadians, urban and rural alike, growing our own food, even in limited quantity, is beyond the realm of imagination. We are so disconnected from our land and modes of food production, lulled by the ever-present abundance and variety in the grocery store, remaining blissfully unaware that most of what is offered does not grow in Canada. That abundance and variety that we have grown to demand depends on the global South.

Working in solidarity requires understanding and empathy. Sharing in experiences and learning from peasants and promoters how CaC pedagogy operates in context, I hope, will allow me to contribute to a movement whose reported successes have benefited Campesinos/as in moving toward their goals of food sovereignty (Rosset et al., 2011). This work has meant continually challenging my Western thinking about food production and progress. I strive to be an ally to Indigenous peoples by valuing Indigenous epistemologies and ways of being in the world and continuing to challenge myself and others to decolonize our ways of knowing and being in the world.

**Contextualizing the Research**

Agriculture, in its many diverse forms, is a human activity that embeds us in our ecosystem. Whether we are conscious of it or not, humans both shape and are shaped by land, water, and global ecological processes. No matter how we view our place in global ecological processes, we all need to eat. Persistent and increasing global issues affecting food security include soil and ecosystem degradation, climate change, loss of biodiversity and leveling of
agricultural yields (Altieri & Toledo, 2011). Despite significant advances in agricultural technology since the 1950s, hunger persists as a contemporary global problem. It is widely recognized that one of the reasons that hunger persists is because of the unequal distribution of resources and power (Lappe & Collins, 2015; Patel, 2012; Sen, 1981) including the unequal distribution of, “income, land, water, seeds and other resources” (Altieri & Toledo, 2011, p. 589). Unfortunately, many of the world’s hungry people are small-scale farmers and landless farm workers or peasants (Lappe & Collins, 2015).

Peasants are a culturally diverse, heterogeneous group including the rural poor, small scale farmers, landless agricultural workers, hunter gatherers and fisher people who have been historically marginalized and continue to experience economic vulnerability (Edelman, 2013). This research will focus on peasant farmers in Latin America or Campesinos/as, a group that experiences food insecurity despite their access to land and knowledge in food production. Based on estimates from 2010 the Latin American peasant farmer population was 65 million, with 40 to 55 million of those speaking approximately 725 languages (Altieri & Toledo, 2011). This population is not only culturally diverse, but also ranges from subsistence farmers to semi-commercial and commercial farmers with links to national or international markets (Altieri & Toledo, 2011).

Historical marginalization of peasant farming population has been both social and geographic. In Latin America, Campesino/a, has been used as a derogatory term signifying rural peasant farmers, often from Indigenous and/or racialized communities, with little education and value. I will use the term Campesino/a throughout this study because rural peasant movements in Latin America have been working to reclaim the term Campesino/a as a positive signifier of collective knowledge and power to produce food and community (P. Rosset, personal communication, December 1, 2017). Campesinos/as are characterized as people who cultivate
food for subsistence without accumulation of capital, use mainly family labour, and have distinct relationship with the earth through their food production (Garcia Pérez, 2017).

In many countries in Latin America, since the beginning of colonization Campesinos/as have been pushed off prime farmland towards mountains or desert (Altieri, 2002) where poor soil, steep slopes, and unpredictable rainfalls lead to poor yields and subsequently, food insecurity (Chávez-Mejía et al, 2001). This geographic and social marginalization has led to poverty and hunger among Campesino/a populations in Latin America (Holt-Giménez, 2006). In México this has been a result of government policies which served the project of “freeing up land and labor from the peasant sector and transferring them to supposedly more efficient uses” with the aim of encouraging increased agricultural productivity and participation in domestic and international markets (Bellon & Hellin, 2010, p. 1434).

Widely promoted as a way to end hunger and poverty by increasing agricultural production, adoption of Green Revolution techniques and technologies have been encouraged in the global South since the 1960s (Astier, et al., 2017). The goal of the Green Revolution was to increase production of staple crops such as maize, wheat, beans and rice by applying scientific techniques for soil fertility, breeding, and chemical pest control, developed under laboratory conditions in developed countries (Chávez-Mejía et al., 2001). Ideological pressure to adopt the Green Revolution model in the global South came from the United States with the goal of, “modernizing agricultural practices to increase the productivity of soils and labor with the objective of modernizing and industrializing societies that were considered primitive and rural” (Astier, et al., 2017, p. 331). This model has promoted practices such as monoculture planting, mechanization, application of artificial growth factors (chemical fertilizers, herbicides and pesticides) and the use of irrigation systems and hybrid and transgenic seeds (van der Ploeg, 2010). This model, which continues to operate today, follows a logic of modernization as
necessary and inevitable, including the implicit assumption that all “agriculture should be modernized and primary producers should become agricultural entrepreneurs whose decisions are guided by market logic” (van der Ploeg, 2018, p. 489, italics in the original).

Unfortunately, despite the initial success and wide adoption of these industrial agricultural practices, recent research has shown that with long term and sustained use, Green Revolution practices create a consistent pattern of leveling and/or declines in yield, due to declines in soil productivity, increases in soil compaction, and an increase of crop pests (Mulvaney et al., 2009; Pingali et al., 1997; Radford et al., 2001). Industrial agriculture has also been shown to increase topsoil erosion and aquatic death due to chemical fertilizer run-off, as well as significantly contribute to atmospheric greenhouse gases (Lappe & Collins, 2015; Mulvaney et al., 2009; McMichael et al., 2007).

Altieri and Toledo (2011) explain that the vulnerability of industrial agriculture lies in its dependence on fossil fuels for fertilizers, pesticides and machinery, the limiting of its genetic base by using transgenic crops and the promotion of low ecological diversity through monoculture planting. Using an ecosystem services approach, Tomich et al. (2011) argue that the spread of industrial agriculture since World War II has led to the uncoupling of agriculture from ecosystem services—chemical inputs and fossil fuels replacing ecological functions and labour. For example, “purchased inputs have substituted for local recycling of resources, particularly manures in integrated crop-livestock systems, and for crop rotation sequences that promote biological N fixation or suppress pests and diseases” (p. 199). With the rising cost of fossil fuels combined with increasing climate change events, a continued dependence on industrial agriculture will result in increasing threats to food security (Altieri & Toledo, 2011).

Several scholars have noted however, that Green Revolution technologies were not widely adopted by the most resource poor farmers. Initially this was blamed on ‘farmer ignorance’, but
researchers have since concluded that Green Revolution technologies were not appropriate to the needs and resources of small holder farmers (Schulz, 2002; FAO, 1995). In México, for example, technical kits were geared toward larger farmers, and “research simply, did not perceive campesino reality, needs and objectives” (Chávez-Mejía et al., 2001, p. 114). In other words, despite industrial agricultures success in increasing food production on a global scale, the benefits of this success have been unequally distributed toward larger scale farmers.

Possible reasons for the unequal adoption of Green revolution practices, and persistent poverty among Campesinos/as in Latin America can be found in a document created by The Food and Agriculture Organization (FAO) of the United Nations (1995), outlining the issues small farmers in Latin America faced in the 1990s. Problems of small farmers included possession of small quantities of poor quality land in marginalized areas that was often not sufficient for production beyond subsistence level. Agricultural services and supports that were insufficient and often excluded smaller farmers or did not address their needs, expensive machinery and industrial inputs, and scarce and highly bureaucratic farmer credits, were also identified as obstacles faced by small farmers in Latin America. FAO (1995) also called attention to the centralized top-down system of agricultural policy implementation in Latin America that did not consider the above conditions faced by small farmers and did not provide avenues for them to express their needs or accomplish their agricultural goals.

Despite the lack of widespread adoption of industrial farming methods among the poorest peasant farmers in the years of the Green Revolution, Mexican government incentives aimed at modernizing agriculture by targeting peasant farmers have since succeeded in slowly transitioning peasants, even those who practice rain-fed subsistence agriculture, away from traditional practices toward the use of purchased industrial inputs and monoculture planting (UNCTAD, 2013; FPP, 2016a). These programs included federal programs such as SAM Sistema
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*Alimentario Mexicano*, (Mexican Food System 1980-83) (Austin & Esteva, 1987) and more recently PROCAMPO *Apoyos Directos al Campo* (Direct Countryside Support), and also various hybrid seed and fertilizer subsidies provided by different levels of government created to reduce the costs of industrial inputs. PROCAMPO was designed to shield the poorest farmers from the effects of NAFTA by giving money directly to them to encourage domestic corn production, and evidence suggests it was successful in supporting medium and large-scale corn producers (García-Salazar et al., 2011). However, evidence shows that PROCAMPO had the effect of reproducing existing inequalities among Mexican farmers because it did not reach the poorest of farmers (Fox & Haight, 2010).

As Medellín Erdmann (1987) points out, the efforts to modernize agriculture rested on the premise that either peasants, or the peasant lifestyle would die out in the process of modernization. Peasants were considered inefficient producers:

> a transitional class based on a precapitalist mode of production that is generally being destroyed by the expansion of the dominant capitalist mode of production. Only when capitalism is fully developed and has turned all peasants into proletariat can they contribute to a radical transformation of society (Medellín Erdmann, 1987, p. 150).

Despite this prediction, recent articles have shown the persistence and even a resurgence of the peasant form of agriculture. van der Ploeg (2010) describes a recent trend reversal away from modern agriculture and toward peasant modes of production. Peasant modes of production are characterized by Chayanov and his contemporaries by the absence of capital-labour relationship. Labour in peasant farming is not wage labour but is based on the principle of reciprocity where labour is exchanged outside of the market (van der Ploeg, 2013; Quijano, 2000). As such, a peasant farm exists within the dominant capitalist systems, but is not in itself a capitalist unit of production. According to van der Ploeg, the turn away from modernization and toward peasant farming is manifesting as a rebalancing away from commodity relations and a reconnection of
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farming to nature (van der Ploeg, 2010). As such, peasant agriculture can be understood as co-production, “the interaction and mutual transformation of human actors and living nature” (van der Ploeg, 2014, p. 4).

Over the past 30 years, agroecology has been growing as viable alternative practice to industrial agriculture for small holder farmers in the global South. Agroecology is a system of agricultural practices based on the principles of ecology (Altieri, 2002). In examining the feedback loop of interaction between agriculture, climate change and food security, agroecology shows promise in both increasing food production, resilience to climate change events, as well as reducing the detrimental effects of agriculture on the environment (Tomich, et al., 2011). Recent research on the increasing adoption of agroecology practices at the farm level has identified Campesino-a-Campesino (CaC) as an important catalyst for the spread of agroecology practices. CaC is a farmer-to-farmer pedagogy used to learn/teach agroecology among Campesinos/as in Latin America that has spread to various regions in the global South (Khadse et al., 2017; Rosset et al., 2011). Within the CaC approach, farmers co-generate knowledge and share innovative or traditional rediscovered solutions to problems that are common among families (Rosset et al., 2011).

The following section will introduce key terms relevant to this study including agroecology, Campesino-a-Campesino, food sovereignty and La Vía Campesina, agricultural extension, and peasant protagonism. This will be followed by the purpose, guiding research questions, and a rationale for this study.

**Key Terms**

**Agroecology.** Agroecology is a set of farming practices, a movement and a scientific discipline. As a science, agroecology refers to designing and managing sustainable food systems by applying ecological concepts (Tomich et al., 2011). It is important to acknowledge that the
principles of agroecology originated within farming and Indigenous communities as they experimented and adapted to changing conditions (Altieri & Toledo, 2011). In a review of literature on agroecology in México, Astier et al. (2017) described the emergence of agroecology as a science in the 1980s and 1990s, as the result of Mexican agronomic scientists being inspired by traditional Indigenous peasant farming practiced by communities and social groups. Intense field work during the 1970s documented scientific evidence of agroecological benefits of traditional peasant and Indigenous farming systems. Examples of these systems include traditional agroforestry coffee growing and, native corn-growing systems, such as the Mayan Milpa where corn, beans and squash are grown in functional biodiversity (Astier et. al., 2017). With contributions from studies of agroecology practices worldwide, agroecology has gained legitimacy as a scientific alternative to the Green Revolution model (Astier et. al., 2017).

Agroecology is a set of low-cost farming practices based on principles of ecology that focus on regeneration of soil fertility and pest management without external inputs (Altieri, 2002). These principles include increasing biomass recycling, covering soil to preserve organic content, polyculture planting, crop rotation, minimizing nutrient losses through functional biodiversity, and synergisms between system components (Altieri, 2002).

An important distinction is made by Altieri and Toledo (2011) between organic agriculture and agroecology and how each relates to the autonomy of farmers. Organic agriculture simply replaces chemical inputs with organic inputs, while continuing to share characteristics with the industrial agricultural model including crop monoculture and irrigation systems. They argue that the input substitution approach, which does not challenge monoculture planting, “does not move farmers toward the productive redesign of agricultural ecosystems that would move them away from dependence on external input” (p. 588). On the other hand, agroecology shifts the focus toward synergisms within the system and reduces external inputs.
This shift makes it attractive to small holder farmers who cannot afford, for example, expensive inputs or irrigation systems. Altieri and Toledo (2011) also take issue with organic agriculture’s reliance on volatile, niche markets of consumers in the North, as they fall prey to the “same problems of any agro-export scheme that does not prioritize food sovereignty…often perpetuating dependence and at times hunger” (p. 588).

The adoption of agroecology has meant that peasant farms in Latin America have increased their productivity, while eliminating or reducing their dependence on external inputs by stopping erosion, regenerating soil, diversifying crops, and reforesting hillsides (Holt-Giménez, 2006). Increasingly, scientists are finding peasant agriculture more resilient to extreme climate events and more adaptable to climate change than industrial agriculture (Altieri & Koohafkan, 2008; Altieri & Toledo, 2011; Rosset et al., 2011). In a study comparing ten agroecology practicing farmers to ten of their conventional farming peers in Guatemala, Pruan et al. (2017) found farmers using agroecology to be more resilient because of, “a more diversified production system, a higher agricultural income, and a stronger social network” (p. 2).

In addition, peasant agroecology methods have been shown to result in higher levels of total production per unit area despite requiring lower amounts of external inputs and lower labour per unit area (Rosset et al., 2011). In a review of agroecology practices Tomich et al. (2011) explain that this high yield despite lower inputs is due, in part, to synergies within the agroecology system. The proliferation of agroecology methods has been shown to have positive effects on peasant families including building farm sustainability by minimizing external dependency, diversification of opportunities resulting in family members returning from urban areas (Rosset et al., 2011), and giving youth viable options to remain on the land (Meek & Tarlau, 2016).
Tomich et al. (2011) explain that biodiversity has been associated with productivity and resilience. Species richness spreads out sources of food and habitat for pests and diseases, provides refuge for beneficial insects, and supports diversity of pollinators, pest predators and soil microorganisms. Genetic diversity within species helps crop resilience against pests and diseases. On a temporal scale, biodiversity is maintained through crop rotation, which also improves soil nutrient balance and diversity of soil microorganisms. Tomich et al. (2011) identify several agricultural management practices that have reduced global agrobiodiversity including, “hedgerow removal, clearing of natural vegetation to expand field size, land leveling, intensive tillage, pesticides, mineral fertilizers, clonal propagation and planting of extensive monoculture” (p. 200). Authors of this review have also found that with the reduction/elimination of agrochemical use, agroecology systems are conducive to restoration of agrobiodiversity.

A key component of agroecology is its focus on principles rather than recipes, making it adaptable across various geographic and cultural settings (Rosset et al., 2011). This adaptability facilitates farmer innovation as a central theme in agroecology. Social networks have been key to spreading information about benefits and costs of agroecology innovations (Tomich et al., 2011). The recent rapid spread of agroecology practices has led social science researchers to identify agroecology as a social movement. This movement’s goals are to empower the rural peasantry, recognize knowledge of small Indigenous farmers, reduce dependence on agrochemical inputs, and align agricultural production systems with natural ecosystems (Astier, et al., 2017).

In the 1980s and 1990s, political parties, social movements, farmer networks, and civil society organizations in Latin America embraced and promoted agroecology as a way toward rural sustainable development for communities. Diverse groups were united by their shared experiences with production guided by principles of farmer autonomy, agrobiodiversity and environmental conservation (Astier, et al., 2017). As McCune and Sánchez (2018) explain, social
movements have taken up agroecology because they find, “in its practice and theory, a tool for joining labor and nature to meet human need outside of capital’s imperative to exploit” (para 2). Throughout peasant populations in Latin America, South East Asia, Africa and Europe, agroecology has been growing in popularity as the chosen method for sustainable agriculture (Martínez Torres & Rosset, 2010).

**Campesino-a-Campesino.** An example of constructivist teaching and learning, *Campesino-a-Campesino* (*CaC*) is one among several educational methodologies used to spread agroecology. *CaC*, or peasant-to-peasant learning, is a Freirean pedagogy that developed in México and Guatemala in the 1970s, as a way to share agroecology practices among *Campesinos/as* (Freire, 1970; Holt-Giménez, 2006). Recent scholarship highlights the importance of *CaC* as an educational methodology in the growth of agroecology and food sovereignty movements (Rosset, et al., 2011). Holt-Giménez’s (2006) book, *Campesino-a-Campesino*, chronicles how international peasant farmer exchanges spread sustainable agricultural practices from Guatemala to México, Nicaragua, Honduras and Cuba during the 1980s and 90s.

In consultations with *Pan Para el Mundo* (PPM), a German NGO that supports many *CaC* projects, ANAP (Cuba’s small farmers’ union) has defined *CaC* as:

> a form of promotion and improvement of production systems, which places farmers in a position to achieve higher levels of sustainability, based on the principle that participation and empowerment of the actors themselves are intrinsic components of sustainable development, and therefore focuses on the initiatives and protagonism of peasants” (Machín Sosa, et al., 2013. p. 73).

The PPM document, *Construyendo processos de Campesino-a-Campesino* (Building Peasant-to-Peasant Processes), characterizes *CaC* as a simple participatory tool that ensures *Campesinos/as* are included in agricultural development as the drivers of knowledge construction and sharing activities (PPM & ESPIGAS, 2009).
In comparison to traditional agricultural extension methods, where extension officers (agronomists) bring knowledge to farmers who are viewed simply as passive recipients (Freire, 1973) CaC places farmers as protagonists, choosing, applying and adapting agroecology principles to local conditions (Rosset, et al., 2011). CaC promotes “peasant protagonism and enthusiasm through a horizontal learning experience, where farmers themselves are both students and teachers, and education is a collective process of reflection and action” (Khadse et al., 2017, p. 4). This protagonist approach involves the generation and sharing of technologies and practices. Farmers looking for solutions to problems visit other farms to learn from a farmer using an innovative/traditional solution and can see the results with their own eyes. They are then encouraged to try the technique on a small plot on their own farm. CaC is based on local needs, and environmental conditions, relationships of trust between farmers and active experimentation.

In CaC Pedagogy, two main roles are of crucial importance: the promoter and the facilitator. The promoter is a Campesino/a who uses agro-ecological practices and is enthusiastic about sharing them with others. The facilitator can be a Campesino/a, a former technician, agronomist, or a community member with good communication skills. Importantly, the facilitator role is not a teaching role, but is responsible for identifying and building capacity of the Campesino/a promoters, who do the teaching on their farms. Facilitators also organize farm exchanges and work with promoters to design workshops (ANAP, 2016). The facilitator role allows for the participation of agricultural researchers and technicians, provided they are willing to embrace a different approach where they take a backseat to promoters (Machín Sosa, et al., 2013).

Machín Sosa, et al. (2013) outline the important steps of the CaC pedagogy as they have developed in Cuba: (a) participatory diagnosing and assessing on-farm issues; (b) testing and adapting practices learned to specific farm conditions; and (c) promoting adapted practices.
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among other Campesinos/as. These three steps are not only the first steps in adopting
agroecology, they are also cyclical and ongoing on farms that are in the process of adopting
agroecology practices. Machín Sosa, et al. (2013) also outline five guiding principles of CaC that
are responsible for the pedagogy’s success.

1. *Start slow and start small.* In the life of a working farmer, reducing the risks and time
involved in learning new practices allows for fuller participation. It also allows time
for reflection, evaluation and correction of errors.

2. *Limit the introduction of technologies.* Introducing agroecology techniques one by one
allows Campesinos/as to become confident with each technique and integrate it into
the farm and stabilize their use before learning another.

3. *Attain quick and recognizable success.* Begin with techniques that require the lowest
investment and aim to solve the largest issue identified by the Campesino/a. Success
is the most effective motivator and enthusiasm leads to the generation of new ideas.
“The word may convince, but the example prevails” (p. 77).

4. *Experiment on a small scale.* By testing, sharing, adapting and adopting, “the farmer
becomes an active and innovative experimenter and the farm, his or her rich and
permanent laboratory” (p. 78).

5. *Develop a multiplier effect.* A constant process of communication between farmers
about the results of their experiments, lessons learned, and successes builds a network
for learning agroecology. Farmers who are skilled in production and communication
become promoters, teaching others through their example.

It is important to note that CaC developed among peasants as a way to share agroecology
practices among farmers, with the goal of improving their livelihoods and therefore cannot be
separated from the practice of agroecology (Holt-Giménez, 2006).
Food sovereignty and La Vía Campesina. The food sovereignty movement grew out of resistance to globalization, and modernization, led by La Vía Campesina (LVC), an international peasant organization that evolved from the Latin American peasant movement. LVC, a network of grassroots organizations, focuses on empowering peasants to sustainably produce food through agroecology practices. CaC is one of many methods supported by LVC member organizations to promote the spread of agroecology. Founded in the 1990s to advocate for small holder farmers and landless workers, LVC has been growing steadily for the past 25 plus years (LVC, 2017). The LVC (2017) mission is to, “promote small-scale sustainable agriculture, build resilient agroecosystems, [and] promote social justice and dignity” (p. 1). In 2017, LVC had 149 member organizations in 69 countries, had established more than 40 agroecology schools world-wide, and as of calculations in 2010, collectively represented approximately 500 million rural families (Martinez Torres & Rosset, 2010).

Food sovereignty, a concept first articulated by LVC, is defined as “the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems” (Meek & Tarlau, 2016, p. 245). Rather than focusing on peasants as victims in need of foreign or state government aid, food sovereignty shifts the focus to peasant resilience, protagonism, and innovation. Food sovereignty emphasises a desire by those producing food for control over land, water, seeds, and production decisions, which are increasingly being influenced by global market forces (Martinez Torres & Rosset, 2010). Food sovereignty as a concept can be understood as both a project and a process (McMichael, 2008), with diverse meanings and manifestations depending on the actor and the context, making implementation complex. Food sovereignty in theory and action is seen as “a form of resistance to neoliberal economic development, industrial agriculture, and unbalanced trade relationships” (Carney 2012, p.72). Importantly, Grey and Patel (2015) explain
that “food sovereignty is the continuation of anti-colonial struggles in ostensibly postcolonial contexts” (p. 433).

Critiques of food sovereignty centre around the complexity of its implementation including the presence of potentially competing interests between its insistence on sustainable food production methods and the autonomy of farmer choice to define their own agricultural systems (Edelman et. al., 2014). Critiques also point to a lack of focus on gender equality and youth issues (Agarwal, 2014). With regards to gender equality, some have questioned if the food sovereignty project rooted in cultural traditions is able to challenge gender inequalities inherent in some cultural gender roles (Bezner-Kerr, 2010). However, several authors acknowledge the key role that women played in the process of defining food sovereignty itself, especially the emphasis on a reduction in the use of agro-chemicals and the right of people to produce their own food in their own territory (Desmarais, 2003). In response to these critiques, there has been a recent push within La Vía Campesina to continue to make space for the involvement of women and youth in rural peasant movements (P. Rosset, personal communication, December 1, 2017).

Critics recognize that despite the complex issues involved in implementing food sovereignty, its popularity has been successful in uniting very diverse actors around principles of food justice and farmer rights. Food sovereignty, a concept developed by peasants, is offered as a counterpoint to food security. Food insecurity is a “prolonged lack of access to enough food to meet basic needs” (Carney, 2012, p. 72). In 2010, FAO estimated that 925 million people experience chronic hunger worldwide (FAO, 2010). Food security, a concept developed by industrialized nations, is often critiqued for focusing only on the end goal of providing food to the hungry, no matter the means. In other words, as part of a global project, food security measures are criticized for focusing on food quantity but not quality, and often ignoring power dynamics, which keep control of production and food distribution decisions in the hands of those who are
food secure (Carney, 2012). Food sovereignty provides a conceptual framework to examine global issues that recognizes peasant autonomy as a priority.

McCune and Sánchez (2018) provide a clear analysis of a divide within the food sovereignty movement between those working toward scaling out agroecological practices through CaC, often (and historically) supported by NGOs, and La Vía Campesina’s political-agroecology training schools. This divide manifests in critiques of the weaknesses of the other: with NGOs critiquing social movements for their focus on national/global political advocacy at the expense of much needed local organizing, and social movements accusing NGOs of creating short-term dependent programs that leave communities in the lurch when the funding runs out. While social movements focus on politicizing peasants through emancipatory Freirean pedagogy, NGOs tend to shy away from global politics and instead focus on promoting local organizing for the promotion and implementation of sustainable food production practices. While recognizing that both strategies are needed to spread agroecological practices at a community scale and to advocate for food sovereignty at a global scale, McCune and Sánchez (2018) call for a deeper analysis of educational practices of both strategies in order to better understand collective processes leading toward food sovereignty.

**Agricultural extension.** Agricultural extension is the term used for methods of dissemination of knowledge and technology in agriculture. As Schulz (2002) explains, traditional extension is characterized by top-down approaches where farmers gain knowledge or expertise from government officials, researchers or company extension programs. Researchers typically identify problems, prioritize and develop solutions in the form of new techniques or technologies. These solutions are often packaged in kits containing, for example, new seed varieties, and recommended fertilizer and pest control varieties as well as instructions for care. These kits are then given to extension officers to disseminate to the farmer population (Schulz, 2002). This
method has been widely critiqued on the grounds that it lacks avenues for farmers to influence problem prioritizing and technology development, leading to a mismatch between technology available and the issues faced by farmers (Schulz, 2002; Machin Sosa, et al., 2013). In the document Desarrollo Agropecuario: De la dependencia al protagonismo del agricultor (Agricultural Development: From dependence to farmer protagonism) FAO (1995) called for a method of agricultural extension that was based on farmer protagonism, calling the traditional agricultural extension system in Latin America at the time, weak, inadequate and inequitable.

In his book, Extension o Communicacion, Paulo Freire (1973) critiqued traditional extension methodologies on epistemological grounds. Extension as Freire defined it, involved bringing an already elaborated concept to someone who presumably does not know it. He believed that this act effectively erased the capacity of people to gain the intended knowledge. Freire believed that knowing required a subject’s action in transforming their own reality. In Freire’s analysis, without participation in the construction of the elaborated concept, the target of extension becomes an object. As an object the farmer is expected to passively receive this information and put it into practice. But, as Freire (1973) argues, only a subject can act, and through this acting, know.

This method also has the effect of negating the knowledge already possessed by farmers themselves. For example, peasant and Indigenous farmers report experiences with extension agents recommending against planting associated crops, such as corn, beans and squash, traditionally planted together in the millennia old Milpa peasant agriculture system, (Chávez-Mejía et al, 2001). In traditional extension, researchers, extension workers and technicians are active subjects in generating knowledge, agricultural technologies and in sharing these technologies, but “the peasant or rural farmer’s capacity as an innovator is excluded entirely from
the process” (Machín Sosa, et al., 2013, p.75). Farmers act only at the end of this process by deciding to either adopt or reject the proposed technology.

According to Machín Sosa, et al. (2013), the effectiveness of traditional extension in disseminating sustainable agricultural practice is limited by the number of extension officers, the budget of extension institutions, farmer’s trust in extension officers, and its pedagogical form. The top down pedagogy of traditional extension does not trigger an ‘auto-catalytic’ response, which often leads to cases where technologies are adopted only by a few farmers, and only in the short term. Then, when extension officers leave, enthusiasm fades (Machín Sosa, et al., 2013; Rosset et. al, 2011). On the other hand, CaC is “a dynamic process, which moves at its own pace and reaches much further in less time than extension technicians have been able to” (Machín Sosa, et al., 2013, p. 68).

**Peasant protagonism.** Peasant protagonism is a term used by La Via Campesina (LVC). Although often used, the phrase peasant protagonism is never fully defined, perhaps because the Spanish word *protagonismo* has no direct translation. Sometimes translated as peasant initiative, or peasants in a driving/leadership role, peasant protagonism is often used to describe an auto-catalyzing, or self-catalyzing dynamic that leads to adoption and spreading of agroecological practices.

A protagonist means both the most prominent character or leader in a situation and an advocate of a cause (Oxford, 2016). A peasant protagonist is therefore the principal actor in a story or plot, as well as a champion of the causes of peasants. The joining of these two words creates a distinctly political term, given that peasants have been historically marginalized. With this in mind, the change toward protagonist can be imagined as empowerment to act rather than being acted upon. Protagonism, as opposed to a single protagonist, seems to characterize collective movement in its implications of empowerment, action, and leadership. Peasant
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protagonism is used in literature nested within a broader concept of food sovereignty. The cause peasants champion is therefore their own right to health and independence through food sovereignty. This study focuses on Campesinos/as whose food sovereignty rests on their rights and ability to grow food for sustenance and sale.

The political aspects of peasant protagonism are much wider than the individual peasant family or community. Peasant protagonism implies both an individual and collective power. Scholars are increasingly recognizing the role of peasantry as central in the story of resistance against the advancement of industrial agriculture and neoliberal policies (Altieri & Toledo, 2011). Crucial to this political peasant protagonism is access and control of land used to sustainably produce food (LVC, 2017).

Purpose

My aim, in the broadest sense, was to understand how learning agroecology through CaC pedagogy functions in a social system to promote protagonism among farmers. “Understanding [CaC] as pedagogy is key to understanding the importance of culture and autonomy, not only in the movement, but in the practice of agroecology” (Holt-Giménez, 2006, p. 110). Following this logic, it is important to investigate how the culture created by CaC pedagogy and agroecology practices themselves promote the development of protagonism among farmers.

The purpose of this study was to investigate both how CaC promotes peasant protagonism and what makes CaC a unique catalyst for spreading agroecology practices among peasants. The study was guided by the overarching research question: How does the culture created by CaC pedagogy in practice promote the development of peasant protagonism among Campesinos/as?

Four sub-questions included:

a) What sociocultural conditions enable/hinder co-participation in CaC?

b) What pedagogical aspects of CaC influence the adoption of agroecology practices?
c) What social, cultural and political factors motivate *Campesinos/as* to change farming practices toward agroecology?

d) Once *Campesinos/as* use agroecology practices, what motivates them to share these practices with others by becoming peasant promoters?

**Rationale**

Some authors identify *CaC* as a unique and critical case in the broader food sovereignty movement (Rosset, et al., 2011). Because of *CaC* successes in spreading agroecology practices in various countries in Latin America, claims have been made that *CaC* pedagogy is critical in the broader movement toward both food sovereignty and the growth of agroecology practices (Holt-Giménez, 2006; Rosset, et al., 2011). These claims alone give reason to study the phenomenon further.

Several authors call for a deeper investigation of what factors influencing knowledge flow among small holder farmers in the global South and how this influences the adoption of new agricultural practices (Dutrénit et al., 2016; Mashavave et al., 2013; Davis et al., 2004). In research on contemporary extension in the global South, Dutrénit et al. (2016) identify farmer-to-farmer knowledge transfer as critical to, “the success of the overall production cycle” (p. 6). In their study based on (2011) survey results with Mexican farmers, Dutrénit et al. (2016) identified two important factors that facilitate knowledge flow among farmers including belonging to organizations, and regional cultural factors that characterize the South of México as a communal type of culture. They also point to other studies whose findings indicate the important role of trust among farmers and social capital in knowledge sharing practices (Sligo & Massey 2007; Gómez-Limón et al., 2014).

Agroecology as a sustainable agricultural practice has been well studied, beginning in the 1970s (Altieri, 2002; Astier et al., 2017). Given the recent burst of scholarly interest in social
movements in the global South, Meek et al. (2017) have identified a gap in research investigating educational practices of social movements. Educational methodology plays a crucial role in advancing the goals of food sovereignty (Meek et al., 2017). One of these goals is to scale-out agroecology practices. The term *scaling-out* is used rather than *scaling-up*, to emphasize the goal of promoting agroecology in large numbers of small farmers, rather than increasing the scale of farms themselves (Rosset et al., 2011). *CaC* has been identified as an important catalyst for the scaling-out of agroecology practices perhaps because of its methodological alignment with agroecology and its common goals with food sovereignty. Indeed, one of the principles of *CaC* is “there is more value in a good idea in the minds of a hundred people, than a hundred ideas in the mind of one person” (ANAP, 2016, p. 12).

In a recent study by a research group looking at what factors positively influence the adoption of agroecology practices at the community level, the group identified several important factors by using emblematic cases (Giménez Cacho et al., 2018). Important factors included the synergy between the agroecology system and gains in farmer autonomy, such as reducing external inputs, and the use of technological approaches that prioritize “diversity, synergy, recycling and integration” (Altieri & Toledo, 2011, p. 588) leading to the subsequent reduction in dependencies on subsidies and creditors. Gains in farmer autonomy are also synergistic with agroecology’s emphasis on farmer’s knowledge and “the capacity of local communities to experiment, evaluate and scale-up innovations through farmer-to-farmer research and grassroots extension approaches” (Altieri & Toledo, 2011, p. 588).

Giménez Cacho et al. (2018) also identified influential internal factors including (a) the existence of a high level of social organization in the community, (b) the presence of mobilizing discourse about agroecology as a viable alternative to the green revolution model of agriculture, and (c) a model of constructivist teaching and learning. They characterize the model of
constructivist teaching and learning as horizontal teaching/learning based on traditional, local and or contemporary/popular knowledge. In other words, knowledge comes from farmers and is co-constructed. They also identify autonomy of participation as an important characteristic of the teaching/learning model. Presumably this means farmers have choice over how they participate. Important external factors included (a) a state of crisis triggering the need to change, (b) external allies including NGOs offering resources and support, (c) favourable markets or other mechanisms for connecting to consumers, and (d) a recognition among local political entities that a move away from the promotion of green revolution technologies was needed. Authors studying the spread of agroecology caution that when working with external allies offering resources, there is always a negotiation between maintaining autonomous processes of agricultural development and creating dependency that makes lasting change difficult to achieve (Giménez Cacho et al., 2018).

In 2006, Holt-Giménez released a comprehensive book about the CaC pedagogy, its history and spread across Latin America, and in so doing included many voices from actors in the movement. Holt-Giménez’s accounts of CaC activities in México are mostly from the late 80s and early 90s. Although there is recent literature on CaC activities in Cuba and other Latin American countries, there are few recent examples of literature exploring recent examples of CaC activities in practice in México. This gap in research gives cause to investigate whether the ‘self-catalyzing dynamic’ that CaC is said to be (Rosset et al., 2011, p. 168) has continued to spread agroecology throughout México, one of its important birth places.

Benefits of this study to the research community and society include increasing our understanding of how the CaC pedagogy functions to increase peasant protagonism and to help spread sustainable agriculture practices. The study may also raise the profile of the capacity of peasants as capable agents of change by privileging their perspectives and highlighting their role
in social development and sustainable agriculture. This research will also serve the broader food sovereignty movement by clarifying the processes within CaC pedagogy involved in development of autonomy and empowerment of Campesinos/as, as well as highlight political and sociocultural conditions that enable co-participation in CaC and motivate Campesinos/as to adopt agroecology practices.

In the review of literature in Chapter 2, I begin by providing a brief historical context of Campesino/a agriculture in Mexico. I then examine broad theoretical discourses of global development including post-development critique of the development, the basic needs approach, and the human development paradigm. To illuminate how these theories manifest in practice, I discuss literature evaluating Progresa/Oportunidades, a rural development program with a long history of operation in México. I also briefly review literature specific to women in agriculture as well as literature on contemporary agriculture extension as it compares to CaC. This section is followed by an in-depth review of social learning theories as they relate to CaC and peasant protagonism including modeling, role modeling, self-determination theory, and theories related to social structures and agency.

Chapter 3 outlines the methodology of the study, beginning with an examination of challenges inherent in cross cultural research in Indigenous communities and followed by an in-depth description of the methodology of this study. I then outline the three research phases detailing the methods in each phase. A brief outline of the case context is included as well as a description of the approach to analysis and presentation of results.

Chapter 4 consists of a narrative description of the program understudy and thick description of four of the sites in the case study. Chapter 5 provides an in-depth discussion of the themes of the case study which emerged from the data, including participant quotes to illuminate
each theme. The final chapter discusses interpretations, implications and limitations of the case study as well as provides recommendations for practitioners and further research.
Chapter 2: Literature Review

Historical Context

Indigenous peoples have been farming in what is now called México for thousands of years. As Astier et al. (2017) remind us, the Rockefeller Foundation began the agriculture modernization project in cooperation with the Mexican government in the 1940s. The Rockefeller Foundation provided technical knowledge, tools and extension agents with the goal of creating high-yield plant varieties, promoting the mechanization of agriculture and the use of agrochemicals (Astier et al., 2017). Importantly, early resistance to modernization of Mexican agriculture was voiced by a diverse group of scientists in the 1940s including Efraim Hernandez Xolocotzi, Maximinino Martinez, Augusto Perez Toro, Manuel Maldonado Koerdell, Carl Sauer and French scholars Gabriel Itei and Leon Fourton (Astier, et al., 2017). They highlighted economic and cultural risks as well as risks to local genetic resources of using hybrid seeds, mechanized agriculture and agrochemicals. They also argued that, “attention should be paid to local knowledge before ‘modernizing’ Mexican agriculture because local knowledge is the fruit of wisdom accumulated over generations and the best method of ensuring annual production year after year” (p. 333). These researchers’ careful documentation of local knowledge, “on its own terms” (p. 332) and the documented use of biological pest control, green manures, and crop rotation, were foundational to the later founded scientific discipline of agroecology.

Between 1940 and 1970, agricultural production in México grew more than 5% per year, due to a combination of factors including the success of Green Revolution technologies (Chávez-Mejía et al., 2001). This growth fueled México’s industrial and urban development. Unfortunately, since increasing productivity through the use of technological packages was out of reach for many Campesino/a families, this growth was uneven and most rural areas remained resource poor (Chávez-Mejía et al., 2001).
In México, many of the issues faced by small farmers today arose, or worsened, during the 1980s when rising interest rates (ranging between 12% and 96%), the collapse of global oil prices, and large foreign debt, led the government to seek assistance form the International Monetary Fund (IMF) (De La Peña, 2007; Holt-Giménez, 2006). In exchange for loans from the IMF, the Mexican government implemented structural adjustments to economic policies. These adjustments included devaluation of the Mexican Peso to make exports inexpensive for trade, deregulation, privatization of industry and utilities and fiscal austerity. Fiscal austerity meant a reduction in social services, especially agricultural subsidies, credits and extension services (Holt-Giménez, 2006). Investment in the rural sector fell 50% between 1981 and 1988, leading many farmers to decrease cultivation and move toward raising cattle (De La Peña, 2007). In 1985, 70% of producers were surviving below a basic level of subsistence (De La Peña, 2007). Many groups protested the austerity measures, but, as De La Peña, (2007) explains, the government agenda of the times, including that of President Salinas, had two goals: “opening the Mexican economy to international markets by ending protectionism and ‘modernizing’ the countryside” (p. 318) by encouraging partnerships with agribusiness.

With the goal of modernizing the Mexican countryside, President Salinas changed article 27 of the Mexican constitution in 1992, privatizing the ejido (De La Peña, 2007). Ejidos are a system of communal land tenure in México (Brown, 2004). They consist of pieces of land held in common by inhabitants of a village, and cultivated both cooperatively and individually. Ejidos were formed when peasant armies of the Revolution demanded agrarian reform and Article 27 was added to the Mexican Constitution of 1917. Article 27 declared, “all land, water, and mineral rights to be the property of the people of México” (Kelly, 1994, p. 542). This reform also gave the government the right to redistribute land from large landowners to Campesinos/as for communal land ownership in the form of ejidos. Ejido ownership, previous to the 1992
amendment to Article 27, could only be passed down through generations of Campesinos/as, but not sold. After the 1992 change, Campesinos/as worried about privatization leading to an erosion of their economic, cultural and community social structure, since land could now be parceled off and sold to companies, and foreigners (Holt-Giménez, 2006). With the removal of tariffs and quotas in the 2008 under NAFTA and other trade agreements, below-cost food imports flooded the market and farmers were pushed further into poverty, causing an increase in sale of land and migration to urban centres or to the USA. (UNCTAD, 2013).

México has a long history of rural organization for autonomy, land reform and Indigenous resistance to state control, and the 1990s was no exception (De La Peña, 2007). The Indigenous insurgency in 1994 led by the Ejercito Zapatista de Liberacion National (Zapatistas) arose to “challenge the neoliberal project, demanding effective democracy along with economic and social justice” (De La Peña, 2007, p. 380). In the past 30 years, Campesinos/as have lost trust in national governments, international finance institutions and political parties due to economic policies that led to the deterioration or closing of institutions that had once supported peasant and family agriculture (Martinez-Torres & Rosset, 2010). Despite the predicted “disappearance of the peasantry as an inevitable result of the penetration of agriculture by capitalism [see Kaustky 1899; Hobsbawn 1994]…in recent years peasants have organized in a sophisticated, transnational way to respond to the neoliberal phase of late capitalism” (Martinez-Torres & Rosset, 2010, p. 149).

This transnational organization began in Latin America in the 1980s when peasant civil society groups began networking at yearly conferences and grew into a larger movement in the context of the “50 years of Indian Resistance” Campaign in the 1990s. Martinez-Torres and Rosset (2010) explain that participants of this growing transnational peasant movement strove to “maintain and reproduce non-capitalist relations on the inside,” (p. 154) while recognizing the
necessity of participating in capitalist market relations. Peasant organizations advocated for community economic relationships based on, “the logic of reciprocity and production for subsistence” (p. 154). Several authors argue that this international alliance was able to bring this concept of “…‘moral economy’ directly into the global debate over the future of agriculture, counter-posing it to the dominant ‘market economy paradigm’” (Martinez-Torres & Rosset, 2010). Indeed, as Altieri and Toledo (2011) describe, one of the common features of diverse manifestations of traditional agroecosystems is the presence of, “collective forms of social organization including normative arrangements for resource access and benefit sharing, value systems, rituals, etc” (p. 591). This movement led to the formation of La Vía Campesina and the popularization of the term food sovereignty.

Development

The push to modernize the Mexican countryside originates in its designation as an ‘underdeveloped’ country. In their critique of the project of development, Escobar (1995) and Sachs (1992) and Esteva (1992) trace this designation back to a speech by Harry Truman made in 1949 wherein he called for the more developed countries of the world to solve the problems of underdeveloped countries, thus dividing the countries of the world into a hierarchical binary that reproduced the colonial relations of the previous historical period. The project of development was to be accomplished by increasing production through the application of modern science and technology (Escobar, 1995). In practice, the solutions to ‘underdevelopment’ came in the form of a continuing push for agricultural modernization, and loans to nation states in exchange for structural adjustment policies. By the 1990s it was clear that these policies were not solving the issues of poverty but were perpetuating or deepening inequalities. In México, for example, the gap between the rich and poor of the nation grew significantly during this period with almost half of the population in 1990 living in poverty (42 million) and the number of people living in
extreme poverty increasing from 18 million in 1992 to approximately 20 million in 1995 (Heredia & Purcell, 1995). The food sovereignty movement grew out of this dire situation, which was being experienced in many ‘underdeveloped’ countries around the world, with the radical idea articulated in 1996, to put “the control of productive resources (land, water, seeds, and natural resources) in the hands of those who produce food” (Desmarais, Wittman & Wiebe, 2010, p. 3).

Writing in the early 1990s, scholars in what is now called the post-development school of thought, characterized the development project as imperialist and an active continuation of the colonial project into the post-colonial era (Sachs, 1992). This claim rests on the assumptions of superiority inherent in the development project, which decolonization theorists argue, continue in the contemporary practices of development (Grosfoguel, 2011). For example, in Truman’s speech the people of ‘underdeveloped’ nations were characterized as suffering poverty because of primitive and stagnant economic policies and those from more advanced nations had a moral obligation to help (Escobar, 1995). This helping was done with the assumption that the helper knew the best solution for the helpless (Gronemeyer, 1992). Particularly relevant to a Campesino/a population today was the project of development’s perpetuation of hierarchies constructed at the time of colonization including, the privileging of Western knowledge over other forms of knowledge, urban over rural, white over other races/ethnicities, men over women and western forms of pedagogy over other forms (Grosfoguel, 2011; Quijano, 2000). Post-development theorists advocated for a critique of modernity and development ‘as growth’, as well as the disengagement of the local from dependency on external power, and emphasized conviviality, Indigenous knowledge and cultural diversity (Escobar, 1995; Esteva, 1992; Sachs, 1992). Post-development theorists have reminded development studies scholars and practitioners that each person’s view is contingent, not ‘normal’ or ‘natural’ and that labeling a country as
CAMPESINO-A-CAMPESINO IN SOUTHERN MÉXICO

‘underdeveloped’ is a process of “naturalising the norms and historical processes of the European Self” (Ziai, 2017, p. 2551).

In the 25 plus years since the articulation of post-development critique of the development project as an unjustified intervention in the lives of those who were deemed as less developed, development practice has continued and changed. Post-development theory has been criticized on several grounds, including that it was an oversimplification that did not account for the diversity of practices within the development project (Nederveen Pieterse, 1998). There were many schools of thought and practices at work in development at the time of the post-development critique including alternative development, human development, dependency theory, to name a few. For example, in the 1970s the alternative development model, or development from below, emerged as a critique of mainstream development (growth, modernization, neoclassical economics) and introduced practices that were local in scale, people-centred, participatory and emphasized basic needs and agency, “people’s capacity to effect social change” (Nederveen Pieterse, 1998, p.345).

Post-development theorists critiqued alternative development as failing to offer an alternative to development. In other words, they felt it was sharing the same underlying goals, but simply using different means to achieve them (Ziai, 2017). As Nederveen Pieterse pointed out in 1998, many of the practices of alternative development had already been incorporated into mainstream development practice (although inconsistently), in its shift from a focus on the state level to the community level and its use of NGOs to carry out community development projects. Critics of alternative development were dissatisfied with the lack of unifying framework or explanatory theory. However, some conceded that the very idea that alternative development is practice oriented comes from an underlying assumption that, “genuine development knowledge is also people’s knowledge and what counts is local rather than abstract expert knowledge”
This is a view of development as constantly changing and responding to local knowledges and goals.

The basic needs approach, first developed by the International Labour Organization in 1976 (Lisk, 1977) was a response to the persistence of poverty despite growth in a countries GDP during the first years of implementation of development policies. Recognizing that development’s focus on income was not benefiting those living in extreme poverty, the focus of the basic needs approach was on providing basic needs for human flourishing such as food, water, shelter, health, sanitation and education (Stewart, 2019). Proponents of the basic needs approach favoured policies such as investment in more labour-intensive production of basic goods, reorientation of social services toward those in extreme poverty, more equitable access to land ownership, credit and education, and participation of “the masses” in decision making around what constitutes a basic need in each cultural context (Lisk, 1977). This approach influenced decision makers in the World Bank who created programs in education, health and shelter in the late 1970s. The influential economist Amaryta Sen critiqued the basic needs approach, for being too narrowly focused on meeting people’s material needs by supplying commodities, but ignoring human rights, agency and freedom (Stewart, 2019), and proposed a capability approach.

The human development paradigm grew out of the theorizing of both Sen’s capability approach and Mahbub ul Haq’s (1995) push to change the focus of development economics to people-centred policies rather than an accounting of national income (Fukuda-Parr, 2003). The human development approach conceptualizes development as a process of broadening the range of what people can do and be in their lives by focusing on enlarging capabilities (Sen, 1999). This was to be achieved by removing obstacles that limit people’s freedom and agency including illiteracy and lack of access to resources, political freedoms and healthcare (Fukuda-Parr, 2003). The aim was to influence policies that would remove these obstacles at a national level. This
approach goes beyond simply the well-being of people, but also their agency in achieving their goals or maintaining their values. It has a focus on equity issues of gender, race and class and in its later iterations recognized the importance of participation in household and local decision making as important freedoms (Fukuda-Parr, 2003). This framework has been praised for being a flexible policy lens that could change with the times and cultural context, but also being grounded in a comprehensive theory (Stewart, 2019). The influence of this framework on development policy can be seen in the UN Human Development Reports and its contribution to improving the measurement of equity in development by creating various indexes that went beyond the measure of GDP including the Human Development Index (HDI). Its focus on alleviation of the conditions of poverty through increasing people’s capabilities creates a stark contrast to neoliberal approaches that simply focus on national economic growth.

*Oportunidades/Prospera.* For Campesinos/as in México, development policy is manifested in practice as agricultural extension, state and federal subsidy programs, rural development programs and poverty alleviation programs. An example of a Mexican national poverty alleviation program that was influenced by the human development approach is the long running (1997-2019) ‘conditional cash transfer’ program for the poor and very poor, called *Oportunidades* (later Prospera). In this program, money was given to mothers in exchange for their children’s attendance at school and health clinic visits for check-ups and children’s vaccinations. Funds were conditional on attendance of health talks, children’s consumption of nutritional supplements, and participation in community work such as cleaning and maintenance of local health clinics. This program has been praised by the World Bank for the, “positive impact of the program on school enrolment rates and education levels; significant improvements in nutritional status; and better health prevention” (World Bank, 2014, para, 6) and its adoption in 50 other countries as of 2014.
In a case study of the operationalizing of the human development approach in the implementation of *Oportunidades* in Oaxaca, Tjelta (2005) gives ample evidence of Sen’s influence on the design and rationale for this program, including an understanding of poverty as removing people’s freedom to choose, and the importance of education and health in removing barriers to freedom. Tjelta explains that the idea of providing money directly to mothers was to increase their capabilities for household decision making as well as encourage decision making in communities. This is done through the election of three volunteer female beneficiaries as *Vocales* in each community to help with practical aspects of program implementation and to invite other women to send their children to school. One of the unintended positive effects of this program has been the retention of traditionally local varieties of corn, presumably through women’s increased capital to purchase seed, combined with their preference for their favourable characteristics for cooking, storage, and resistance to drought (Bellón & Hellin 2010).

Tjelta concluded, however, that implementation of the program in communities reflected more “traditional views on poverty as an income/consumption-based problem” (p. 59) that were not aligned with the human development approach, because of views held by those involved in implementation. The basic goal of the program was to provide investments in human capital (health, education, nutrition) that would result in higher wages in the future. However, as Levi (2007) explained in his evaluation of the program, the promise of higher wages in the future depends on many factors including opportunities for access to wage labour in communities, which is based on structural elements of economics in México. Indeed the program’s emphasis on health and education as human capital (capital to be used in wage labour) is flawed since the economic conditions in México do not give opportunities for wage labour to the majority of beneficiaries. Also, given that the major focus of the program was rural areas, *Campesino/as* may not value wage labour over subsistence agriculture. This wage labour orientation has the effect of
creating a dependence on the fund for survival. Tjelta, (2005) acknowledged that this program, as it is operationalized by state actors, might be an example of what critics of the human development approach, call paternalistic programs. Tjelta offered that this could be countered in the case of Oportunidades by incorporating local participatory decision making in the current top-down model of the program.

The human development approach has been criticized for focusing only on the individual, and not accounting sufficiently for the role of social structure, power and collective action in human choices (Tjelta, 2005). There have been complaints about Progresa/Oportunidades effects on community relationships, since specific targeting procedures result in some families in communities not receiving benefits. Participants in Tjelta’s (2005) study in Oaxaca said that those who do not qualify for the benefits do not send children to school and they do not participate in community work which recipients are obligated to do as part of the program (Tjelta, 2005). This is problematic because of the way it has affected the communal structure of las fajinas, or community work, a traditional part of community membership in ejidos in México (Navarro-Olmedo, et al., 2018). For example, in a case study of the effects of Progresa/Oportunidades in communities in the municipality of Calakmul, Olvera et. al (2016) reported how tensions are created in communities through the work that this program obligates its participants to do. They quote a community member in a personal communication explaining:

Those of us who received the Prospera and PAL [another assistance program] are not the only ones who benefit from the clinic, so the whole ejido should help; I think this is an extortion by the government of the people who benefit from these programs, since it forces us to do many things. If the government wants to help, let him just do it, without obligating those that it gives certain financial contributions (Córdoba, 2015, as cited in Olvera et. al (2016) author translation).
This sentiment is echoed in another study done by Navarro-Olmedo, et al., (2018) in Calakmul that identified unfairness of the distribution of government support programs, as the largest source of conflicts in the communities under study.

Other challenges with *Progres/Oportunidades* identified by Tjelta (2005) included language barriers and cultural barriers. These included cases where Indigenous women did not understand (due to the fact that health talks were in Spanish) or did not agree with the ideas presented at the health talks because they represented modern medicine and do not take into account their traditional medicinal practices and worldviews. This is an example of a continuation of a historical process that Wotherspoon, (2015) describes as the “devaluation of ways of knowing and forms of learning essential for the social and cultural viability of Indigenous communities in the process of colonization” (p. 85). Because of the obligatory nature of the health talks, this is an example of what post-development theorists would call imperialistic development education.

Although in this program and others, access to schooling is seen as a good in itself, what is not often recognized is “education’s complicity with neoliberalism and how programmes for inclusion can function to reproduce inequality” (Khoo & Walsh, 2016, p. 11). Many in the food sovereignty movement have pointed out that schooling prepares their children for wage labour in a non-agrarian lifestyle, resulting in youth exodus from rural communities and threatening their future (McCune & Sánchez, 2018; Rosset, et al., 2011). Within the lens of post-development thought, *Progres/Oportunidades* would be an example of a program which is helping, but with strings attached. A program that is creating relationships of dependency and paternalism that privilege Western knowledge and goals of economic growth, specifically entry into the market through wage labour. Decolonization theorists might characterize this program as a continuation...
of practices that promote global designs in spite of local cultures, with the aim of creating a 
homogenized national character (Khoo & Walsh, 2016).

**Women, Agriculture and Rural Development**

It has long been recognized that women are food producers in ‘developing’ countries, 
playing many roles in farm systems depending on the cultural and geographical context including 
raising animals, cultivating vegetables, tree crops, and grains, weeding fields, sowing seeds, 
harvesting, processing harvest, selling food at markets, cooking, feeding families and the passing 
on of food related knowledge to the next generation (Cloud, 1985). In ‘developing’ countries, 
79% of women report agriculture as their primary activity (Doss, 2014). This work has been 
historically ignored by those who assess agricultural productivity and rural development because 
it is non-wage labour which either produces food for household consumption or for sale in the 
informal sector at local markets, or represents informal education (Quisumbing, et al., 2014). 
Studies in the 1970s and 1980s documented what was conceptualized as a gap between men and 
women in agricultural production in ‘developing’ countries, as men took advantage of credit, 
extension services and new technologies which increased their agricultural production while 
women’s lack of access to these resources left their productivity static. These differences in 
access to agricultural projects was in part due to assumptions that men were sole or primary 
farmers (Quisumbing, et al., 2014). There were, however, studies which showed that productivity 
of male and female/hectare remained the same, but women used more labour to maintain 
productivity instead of labour-saving technology with monetary input costs (Cloud, 1985).

In response to the ‘gender gap in development’, the women in development movement 
began creating programs specifically for women in the 1970s and attempted to make women’s 
roles in agriculture more visible through creating better assessment based on households rather 
than on individuals. This movement was critiqued for not recognizing agriculture as an
“intrinsically collaborative endeavor” (Cloud, 1985, p.13) where the roles of women and men are interrelated. Doss (2014) points to the fact that “most food is produced with labor contributions of both men and women” (p. 70) showing that efforts to shed light on the invisible nature of women’s work in agriculture has obscured statistics. The gender in development approach called for an analysis of “the social roles, norms, and resources ascribed to women and men and how these gender roles shape the opportunities and constraints faced by both women and men” (Quisumbing, et al., 2014, p. 9). The gender in development approach used a collective model of the household that recognizes that

men and women of different generations may have separate plots, animals, or production activities, with varying degrees of independent control over the output, and varying degrees of claims on the land, labor, income, or other resources of other household members (Quisumbing, et al., 2014, p. 12).

Partially due to the influence of the human development approach there was much focus on education in building capabilities for women (Quisumbing, et al., 2014). Heward (1998) highlighted that legislative frameworks that had been instituted in many countries meant to close the ‘gender gap’ had little success at the community level. Both Heward (1998) and Stromquist (1998) argued that the focus given to access to education for women, typically ignored the content of said education and failed to recognize the potential for education to reinforce accepted gender identities and perpetuate inequality. They called for a focus on analysing social relations that “sustain the unequal distribution of resources” (p. 3) and a refocus on empowerment education through participatory bottom-up models which engaged women directly in planning of programs at the community level (Heward, 1998). Specifically related to peasant women, Stromquist (1998) advocates for women’s role to be strengthened and supported through legal rights to land tenure, providing water access, appropriate technologies and education. Suggestions included technologies that would bring fuel and water to the household to reduce the time and
labour women expend daily, and education that would include relevant topics such as animal husbandry and soil fertility.

**Contemporary Agricultural Extension and CaC**

Contemporary agricultural extension is heterogeneous and evolving. Today, there is significant emphasis on creating sustainable change through community level dissemination of information and technologies. In response to the ineffectiveness of the traditional extension model, since the 1980s farmer-centered and participatory systems of agricultural research and development have been growing (Schulz, 2002) and today include for example, Participatory Rural Appraisal (PRA), Farmer Participatory Research (FPR) and Farmer Field Schools (FFS). In these participatory models, “the producer brings expertise, analyses specific situations, compares, reviews and makes decisions based on what they learned” (Dutrénit et al., 2016, p. 6). These models represent a move away from a linear, top-down extension approach to a systematic approach to learning (Dutrénit et al., 2016).

PRA is a set of tools that guides participation of farming families through all stages of development projects from needs assessment to evaluation (Schulz, 2002). FPR is a process of communication and collaboration between agricultural researchers and farmers, aiming to make research findings relevant to and applicable in the farmer’s context (Schulz, 2002). A collaboration between researchers and *Campesinos/as* in a mountain village of central México is an example of FPR, where researchers used farmer goals to guide research and took the role of facilitators (Chávez-Mejía et al., 2001). Researchers in this project worked with farmers in their community to achieve their goals of (a) restoring the traditional *Milpa*, (b) reducing costs, and (c) ensuring production systems that provided basic food security as well as supplemented income. Researcher facilitators reported their activities as consisting of providing information on possible crops, making work plans that were flexible and locally pertinent, monitoring crop development,
encouraging reflection on results and discussion of benefits and drawbacks of each choice. This research process led to increases in production, strengthening of farmer investigative skills, higher self-esteem related to restoring the value of traditional knowledge, and the development of mutual support and trust in the community. They also reported that since the research met farmer priorities, trust was built between researchers and community members, making a case for collaborative research at the community level based on mutual trust and support (Chávez-Mejía et al., 2001).

Gallagher (2003) describes Farmer Field Schools as a combination of hands-on activities related to the ‘how and why’ of local agricultural issues, with field-based research. The curriculum follows the natural ecological cycle or ‘seed to seed’, sometimes lasting a whole season, so that participants can directly apply what they learn in activities to their own fields and so that all aspects of an issue can be covered. FFSs are typically attended by farmers interested in a specific issue. Hands-on activities are facilitated by technicians, extension officers or farmers. Gallagher notes that the goal of most Farmer Field Schools is to move toward farmer facilitators because, “they are often better facilitators than outside extension staff—they know the community and its members, speak a similar language, are recognized by members as colleagues, and know the area well” (Gallagher, 2003, para 5).

When compared to these participatory farmer extension methods, CaC stands apart in several ways. Firstly, participatory methods of agricultural extension are used to promote many forms of agricultural practices, but CaC pedagogy cannot be separated from the development and implementation of agroecology as the two were developed together. Secondly, CaC pedagogy represents the fullest example of a constructivist model of teaching and learning. Schulz (2002) explained that in the farmer-to-farmer process, knowledge is constructed through action,
discovery, learning from others and learning through mistakes. CaC is Freirean in its emphasis on collective learning through engagement/confrontation with the world.

Thirdly, with the possible exception of the farmer-facilitated field schools, CaC is the only method within which farmers are the protagonists. In participatory extension models, farmers are participants in a process that is ultimately driven by actors external to the community, such as researchers or technicians who are ultimately not accountable to farmers (Holt-Giménez, 2006). In a critique of participatory extension models, Holt-Giménez (2006) questions the necessity of participatory methodologies designed by outside actors for farmers to engage in their own livelihoods. He explains that, “the goal of campesino pedagogy is not ‘participation’ but cultural strengthening of the social and political relations between smallholders engaged in struggles for sustainable rural livelihoods” (p. 110).

Within the CaC methodology there is a recognition that the best agroecologists are the farmers themselves (Holt-Giménez, 2006). This can be illustrated in the role that CaC gives to technicians and extension officers as facilitators working in the background. The facilitator role in CaC necessitates that technicians embrace the idea that they are, “no longer the ones who hold the truth, but equal participants in collectively creating knowledge, with defined roles” (Machín Sosa, et al., 2013, p. 76). The truth in CaC is rooted in traditional peasant knowledge, another characteristic that sets it apart from participatory extension. Seen through the lens of Freire’s (1973) analysis of agricultural extension, one might say that CaC is not extension but communication.

Fourthly, CaC is unique in its focus on the social processes rather than on specific technologies. Rather than a mode of agricultural extension, it is a social process with the goal of rural sustainable development. Holt-Giménez (2006) claims that what makes CaC unique is its boundedness within a social movement. The movement that Holt-Giménez speaks of, is the...
peasant struggle for sustainable livelihoods through agroecology. He argues that being a part of a broader movement sets CaC, “categorically apart, politically and culturally from project driven methodologies for agricultural development” (Holt-Giménez, 2006, p. 108). In other words, this is not a one-off project based on limited funding and external goals. CaC networks are changing society through creating alternative social networks, paying particular attention to how agroecology practices and Campesino/a pedagogy can be developed, grown and sustained in various communities.

Social Cognition Theory and CaC

CaC pedagogy facilitates an atmosphere of cooperation, sharing and co-creation of knowledge. The creation of this atmosphere seems to facilitate the development of protagonism among peasants. How this happens and what characterizes peasant protagonism will be explored through social cognition theories including self-determination theory, modeling and role model research. This is followed by an exploration of various conceptions of agency.

Modeling, role modeling and self-determination theory. At first glance, the importance of modeling is obvious in the CaC pedagogy. As an informal pedagogy, modeling of practices of successful neighbours plays a key role. An important guiding principle in CaC pedagogy is, “La palabra convence, pero el ejemplo arrastra”. [Words convince, but examples endure] (ANAP, 2016). According to Bandura (1977), “fortunately, most human behavior is learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action” (p. 22). Given that CaC pedagogy has been incorporated within community and organizational structures in several regions of the world (Meek, et. al, 2017, ANAP, 2016), we can look at processes within this pedagogy that place importance on learning through observing others.
Firstly, motivating farmers to consider adopting agroecology practices is done by showing them successful examples of techniques in action. This reflects CaC pedagogy’s emphasis on *vista hace fe* [seeing is believing] (ANAP, 2016). In fact, when a promoter from a small *Campesino/a* collective in Cuba was asked how he motivated farmers to change to agroecological practices, he answered that most people approach him, because they have seen examples of their neighbours’ success and want to learn more (author field notes, Cuba, 2017).

Once farmers are motivated to join, there is a clear emphasis in CaC pedagogy on learning by observation through on-farm visits, agroecology technique demonstrations, and farm exchanges. Learning through observation is at the core of this pedagogy since farmers learn by seeing real life examples of practices used by other farmers. In this way, observation facilitates learning agroecology practices, but also serves to provide successful role models for other farmers.

Research on role models has shown that if learners identify themselves as similar to role models, especially in stigmatized and underrepresented groups, role models can positively influence goals and motivation by being inspirational, representing possibilities, and modeling behavior (Morgenroth, Ryan & Peters, 2015). For example, in 1998, Mexican promoters travelled to Nicaragua to give workshops to *Campesinos/as*. The Mexican promoters had been practicing agroecology in their communities for two generations and had several years of CaC workshop facilitation experience (Holt-Giménez, 2006). The following quote from a Nicaraguan participant demonstrates how relatedness and competence can inspire peers.

When we first met the Mexicans, we were shocked just by the way that they stood! And they knew how to talk about what they knew. They showed us to only preach what we practice. We [*Campesinos/as*] understand each other. Mexicans are *campesinos* just like us. We understand each other. They have shown us what we can become. Those Mexicans! We love them (Don Dolores Lanzas (1986) quoted in Holt-Giménez, 2006, p. 16).
Since they identified with the Mexican promoters as Campesinos/as, just like them, Nicaraguan Campesinos/as were able to see themselves as becoming as confident and competent as the Mexicans. His shock in the confidence of his peers shows his lack of previous awareness of this possible identity for Campesinos/as. These Mexican farmers are not just modeling agroecology practices but are acting as inspirational role models. Since they identify as the same group of people, Mexicans show Nicaraguan peasants possible future identities.

In their review of research, Morgenroth, Ryan and Peters (2015) highlight that perceived competence of the model can be an important factor in role modeling. For example, if the model is too successful, inspired motivation decreases, presumably because their success is seen as unattainable. They also cite research that shows success needs to be domain specific to be relevant (Morgenroth, Ryan & Peters, 2015). In other words, in the case of this quote, relating to the model as a more experienced peer with competence in agroecology and facilitation skills, was responsible for an opening of possible selves in the minds of participants.

Self-determination theory is also relevant in this example. The Nicaraguan Campesino’s admiration for the Mexican promoters as peers and role models, demonstrates the importance of relatedness and competence in inspiring learning among peers. Self-determination theory argues that in learning, humans have basic psychological needs of competency, autonomy and relatedness. (Ryan & Deci, 2009). In this case it sheds light on the question: how does CaC motivate peasants to become protagonists in their own story?

In examining CaC through the lens of self-determination theory, the peer relationship comes to the fore as important in developing peasant protagonism. Agroecology learning through CaC is based on relationships of trust between Campesinos/as. In this peer to peer educational model, relatedness and autonomy naturally comingle, because peers relate to each other differently than do teachers and students in the traditional power relationship. For example, when
Eric Holt-Giménez told the story of when only one farmer attended a workshop, he apologized to the Guatemalan promoters for not finding more students. They responded by correcting him, explaining that they too were students (Holt-Giménez, 2006). Presumably, they objected to being elevated to the role of teacher as it was in direct conflict with their need for relatedness. Indeed, as Altieri and Toledo (2011) explain, these promoters, “saw themselves as students, respecting the Mexican’s deep, lifelong knowledge of their own particular land and climate” (p. 601). Peers naturally identify with each other and relate to each other because they are peers, and in this case because they are all peasant farmers. Peers who relate to each other, simultaneously assume and inspire competence in each other, as well as assume mutual autonomy. This aligns with CaC’s emphasis on preaching what you practice and teaching from what you know in your own experience (Holt-Giménez, 2006). Therefore, the peer relationship is crucial in CaC’s development of peasant protagonism.

Both self-determination theory and role model research sheds light on why the traditional extension model does not serve to motivate and inspire farmers to take on new agricultural practices. If farmers do not relate to extension officers as role models, they are not likely to be motivated to follow their advice. As Rosset et al. (2011) explained, “farmers are more likely to believe and emulate a fellow farmer who is successfully using a given alternative on their own farm than they are to take the word of an agronomist of possibly urban extraction” (p. 169). Both relatedness to a role model and learning through observation intertwine in this quote. Agronomist extension officers are ineffective both because farmers do not relate to them as role models, but also because they do not have experience depending on the success of agroecology practices for their livelihood. As the Nicaraguan Campesino mentioned, a key principle of CaC pedagogy is, only preach what you practice. Following this logic, even a demonstration of an agroecology technique by an extension officer may not be effective because her/his success may not be seen as
attainable by Campesinos/as simply because extension officers are generally not farmers. Relatedness to the lives of Campesinos/as must also be present to create trust and attainable goals. When the extension officers leave an area, Rosset et al. (2011) explain that many communities revert to the pre-project state “because there is little or no, self-catalyzed dynamic among farmers themselves to carry on innovations…” (p. 168). The ‘self-catalyzing dynamic’ they refer to here is peasant protagonism.

Self-determination theory is of interest because of the assumption it shares with the food sovereignty movement, namely, that humans have a basic psychological need for self-determination (Ryan & Deci, 2009). Autonomy in peasant education is particularly important because peasants’ views have historically been denied as culturally valid (Martínez Torres & Rosset, 2010). Much of the language around peasant protagonism is about autonomy and independence, often phrased as a desire or need to decrease dependence. The goals of agroecology are to increase farmer autonomy by decreasing dependency on external inputs in the form of fertilizer and pest control (Altieri & Toledo, 2011; Rosset et al, 2011); dependence on bank loans for irrigation systems and other technologies (Khadse et al., 2017); dependence on foreign aid in the aftermath of climate change events (Lappé & Collins, 2015; Rosset et al, 2011). In self-determination theory, autonomy is explained as the presence of authentic choice and perceived internal locus of causality (Ryan & Deci, 2009). Autonomy supportive teaching is characterized by acknowledging students’ experiences and perspectives, providing choices and options, encouraging students to take initiative and direct their own learning (Ryan & Deci, 2009).

In contrast to traditional extension methods, in which extension officers are the key actors and the farmers are passive recipients (Meek et al., 2017), agroecology learning through CaC
places farmers as protagonist in applying and adapting agroecology principles to local conditions. As Peter Rosset et al. (2011) explain,

The fact that agroecology is based on applying principles in ways that depend on local realities means that the local knowledge and ingenuity of farmers must necessarily take a front seat, as farmers cannot blindly follow pesticide and fertilizer recommendations prescribed on a recipe basis by extension agents or salesmen (p. 168).

Working from principles, rather than recipes, is an important aspect in promoting autonomy. CaC pedagogy furthers this autonomy through encouraging experimentation. While engaging in learning agroecology practices, farmers are encouraged to try the innovation on a small plot on their own farm, to see if it works. This satisfies a need for autonomy and choice.

Eric Holt-Giménez (2006) described agroecology promoters’ lessons as practical demonstrations conducted in a humble and respectful manner, including personal stories of embarrassing mistakes from which they had learned. He reported that the promoters he observed were not bothered by doubts about the new ways of doing things but considered resistance as an important part of the process of learning. Instead, they encouraged other farmers to experiment with the techniques on small plots of land and change or abandon practices or techniques that did not work in the local context. This aligns with self-determination theory’s autonomy supportive teaching. Through CaC, farmers are encouraged to be actors in their education and on their farms.

Self-determination theory speaks of humans’ intrinsic motivation to seek out optimal stimulation and challenging activities as resulting from a need for competence (Ryan & Deci, 2009). In the case of CaC, competence of farmers is taken as a given from the outset. CaC is “a way of discovering, recognizing and taking advantage of, and socializing the rich pool of family and community agricultural knowledge which is linked to their specific historical conditions and identities” (Rosset et al., 2011, p. 170). Honouring the knowledge and local perspectives of
peasants inspires self-confidence by taking people as essentially competent. When we are given positive feedback, our intrinsic motivation grows (Ryan & Deci, 2009).

In contrast, traditional extension officers often view peasants as ignorant, passive recipients of knowledge, officers’ goals often being to replace peasant knowledge with new technologies (Rosset et al., 2011). Methodologically, traditional extension officers tend to hold lecture style workshops focusing on abstract concepts, removing knowledge from its practical base (Holt-Giménez, 2006). In contrast, CaC learning happens in farmers’ fields, and dialogue about local issues as well as experimentation is encouraged. Keeping learning in a context which farmers know, promotes a sense of competence. Also, dialogue and experimentation presuppose that peasants have something to add to the conversation and are competent to engage in useful experimentation. In combination, this recognition of competence, learning in a familiar context, the encouragement of dialogue and experimentation inspires intrinsic motivation in learning.

Critique of self-determination theory. Each person’s right and freedom to act as an agent is taken as a given in self-determination theory. It assumes that all people have the freedom to be autonomous and that each person is expected and entitled to be intrinsically motivated. In using self-determination theory as a lens, we must recognize where it fails to provide an adequate framework in a population that has been historically marginalized and often oppressed. As Freire (1970) explains, if you are racialized or marginalized, the options available to you are socially constrained by social structures put in place by the ruling classes. He argues that internalization of projected inferiority leads to people accepting these constraints as natural. This internalization of an externally projected negative identity, in Freire’s view, turns a subject into an object. An object cannot act but is acted upon. In his emancipatory, consciousness-raising educational model, Freire (1970) advocates for education which exposes internalized inferiority as a fiction used to maintain power structures and reduce the agency of certain groups of people. Exposing
this fiction and inviting engagement in action and critical thinking reclaims identity as a subject with the power of agency. Investigating the concept of agency is important in examining how social structures constrain or enable human agency. In the following section I explore Albert Bandura’s theories of agency and how they relate to the development of peasant protagonism.

Social structures and the development of agency. According to Albert Bandura’s social cognitive theory, “To be an agent is to influence intentionally one’s functioning and life circumstances” (Bandura 2006, p. 164). Agency is exercised in three ways: as individual, proxy and collective agency. Proxy agency represents agency given to others with more power and influence to act on your behalf (Bandura, 2001). Bandura’s theory recognizes that exercising agency is not a given, but depends on rights, freedoms and the development of agentic resources including competence, self-regulation and self-efficacy.

People who develop their competencies, self-regulatory skills and enabling beliefs in their efficacy can generate a wider array of options that expand their freedom of action and are more successful in realizing desired futures, than those with less developed agentic resources (Bandura, 2006, p. 165).

In other words, those with less agentic resources have less options to expand their freedom of action and are less successful in realizing desired futures. As Bandura explains it, “Self-efficacy and group-efficacy, or individual and collective belief in capabilities to achieve attainments, have significant effects on individual and group attainment of goals” (Bandura, 2006, p. 165). Given the societal view of the Campesino/a as ignorant, one can imagine that agentic resources may be poorly developed. Holt-Giménez (2006) quotes a Campesino participant after one of the first CaC agroecology workshops thanking the fellow Campesinos from Guatemala, “Bueno compañeros, we are poor Campesinos and didn’t know anything about these things before you came. What you have given us…I can’t thank you in words. We never went to school. We are ignorantes. This is the first time we ever learned anything so good, tan
bueno…” (Preface, xi). This is a striking example of low individual and collective self-efficacy and internalization of inferiority.

Importantly, Bandura recognizes that both developing and exercising agency interacts with freedom and means: “The exercise of freedom involves rights, as well as options and the means to pursue them” (Bandura, 2006, p. 165). This makes the goal of food sovereignty, to aid peasants in their struggles for rights to land, seeds and other resources needed to control their own agricultural choices, all the more relevant. The idea of patenting seeds, for example, results in reductions of farmers’ rights to use their own seed. Those without the means to purchase seed, year after year, cannot exercise true agency. For Bandura (2006), social structure and personal agency are interdependent. Social structures affect both human development and every day functioning and at the same time are created by human activity. Social structures both impose constraints and provide opportunities and resources. Particularly relevant to populations such as peasants who have been historically marginalized, this interconnected relationship is perhaps why we cannot talk about the science of agroecology without examining the social movement and pedagogy that are creating social structures around its use.

It is important to recognize that peasant farmers are a heterogenous group with varying capacity to develop and exercise agency. For example, in México, men have traditionally been the head of the farming household, however, due to an increase in migration for work, many women are leading farming households. Depending on the cultural group, women may not speak Spanish or be involved in the decision making or governance structure of the community, which limits their capacity to develop and exercise agency.

Another example of how personal agency and social structure play out can be seen in the case of small farmers in the Karnataka region of India, where there is an agricultural crisis and farmer suicides are on the rise (Khadse et al., 2017). In India, authors explain, there are extension
officers in each region who work for agricultural universities advising farmers to adopt green revolution farming methods, which include the use of pesticides, chemical fertilizers and irrigation. Authors point to several studies which identify contributing factors to the agricultural crisis and farmer suicides in India, including increasing costs of industrial agriculture inputs and declining farmer incomes due to falling market prices. These conditions lead to a cycle of debt where farmers borrow from money lenders for inputs and at harvest time find selling their crops to the market does not allow them to repay their debt (Khadse et al., 2017). Through this example, we see that social structures of extension combined with farmer’s individual choice to use industrial agriculture techniques have led to constraints on their everyday functioning. Even though these farmers are exercising individual agency, their dependence on advice from extension officers and dependence on favours from money lenders amounts to them placing proxy agency in the hands of these actors. As Bandura (2001) explains, proxy agency can impede development of agentic competencies when security rests in the competence, power and favours of others. The fact that this debt cycle leads some to suicide, indicates that farmers feel there are no opportunity structures that enable them to escape this cycle.

There is a growing counter movement to industrial agriculture in India called The Zero Budget Natural Farming (ZBNF) movement, which promotes agroecology practices: farming without purchased inputs, with nature and without chemicals. ZBNF has been shown to restore soil quality, sustain and even increase production yields over time (Khadse et al., 2017). The impact of this movement has not been trivial. The authors of this study refer to estimates of one million users of ZBNF nationally and around 100,000 in the Karnataka region (Khadse et al., 2017).

The fact that the ZBNF method requires no inputs and no money gives farmers an opportunity to escape the cycle of debt. Through the use of CaC pedagogy, ZBNF creates
networks of farmers who share practices and support each other, enabling farmers to try new practices (Khadse et al., 2017). It is important to note that CaC pedagogy looks different in India than in Latin America. According to Khadse et al., (2017) ZBNF is led by a charismatic leader who speaks at gatherings of thousands of farmers. During the breaks the microphone is open to farmers who line up to announce their region and their phone number in order to connect with other interested farmers in their region. Facilitators also connect new farmers with others already practicing ZBNF to act as volunteer mentors.

In relation to agency, this movement is creating alternative social structures which create new opportunities and enable farmers to share knowledge with each other. Within these new structures, farmers themselves are experts rather than recipients of advice. This turn away from experts toward fellow farmers is key to understanding how CaC can foster peasant protagonism. This turn away amounts to farmers reclaiming their proxy agency, given previously to extension agents, and exercising individual and collective agency. CaC pedagogy invites farmers to be active participants in the meaning making process.

**Peasant protagonism as conceptual agency.** CaC’s invitation to farmers to participate in meaning making is important because as Greeno and Van deSande, (2007) explain, participants, “take on participatory identities that correspond to regularities in the ways that they are expected and entitled to participate in interaction” (p. 11). In this case, if farmers are not expected to understand or are not entitled to contribute to discussions and decisions around farming practices, they will not be involved in meaning making. They will simply be exercising what Greeno and Van deSande (2007) call disciplinary agency: “following accepted procedures and terminology with authority vested in the disciples so that a positive contribution depends only on its correspondence with established procedures” (p. 12). In this case, the disciplinary norms of agricultural science dictate what extension officers bring to farmers. Even in informal settings,
disciplinary agency is at play because, “…the dominant ideas of a society dictate norms concerning proper forms of agricultural management” (Meek et al., 2017, “Educational Approach”, para 5). If farmers are not expected or entitled to be involved in the construction of these dominant ideas, they are exercising disciplinary agency.

Through this lens, Campesino-a-Campesino pedagogy can be considered a catalyst for the development of what Greeno and Van de Sande (2007) call conceptual agency. They define conceptual agency as:

selection, adaptation, utility, relevance and meaning of alternative understandings, strategies, concepts and methods in a domain of activity so that a positive contribution can result in choosing or adapting a method for use in solving a problem or better understanding of a problem or solution (Greeno and Van deSande, 2007, p. 12).

They claim that conceptual agency is developed through dialogue among participants. For the development of conceptual agency farmers would need to participate within a process of dialogue to select, adapt, and use strategies, concepts and agroecology methods, decide relevance of these methods, and develop understandings of on farm problems and possible solutions. To explore how conceptual agency can be developed among peasants learning agroecology through CaC, we investigate tools and methods within CaC pedagogy that use dialogue and participatory learning.

An emphasis on experiential participatory learning and a clearly defined role of farmers as active co-creators of knowledge is evident throughout documents outlining CaC pedagogy as it has been developed and formalized in Cuba (ANAP, 2016). The main activities of CaC pedagogy are collective in nature, with Campesinos/as participating in all activities, with the exception of municipal, provincial and national meetings, which are attended by facilitators, regional coordinators and farmer promoters representing each region. Campesinos/as participate in reporting and decision making at local assemblies, workshops, farm diagnosis, farm visits, and farm exchanges. During these activities, participatory tools for engagement include didactic
agroecology technique demonstrations, games, songs, poems, sociodramas, drawings, videos, photographs and maps. Even didactic demonstrations are seen as participatory since they are led by farmer promoters and are visual, practical and include time for questions and debate among participants (ANAP, 2016).

For example, during a week-long workshop I attended in Cuba in 2017 called Taller de Metodología de Campesino a Campesino, given by the National Small Farmers Union of Cuba (ANAP), one group of participants, made up of mostly technicians, presented a didactic demonstration on measuring organic matter in soil. The facilitators of the workshop offered a critique to the group, which included advice to make the process more participatory and a reminder that the promoter should be the one leading the demonstrations and not the facilitator. They also commented that as trained technicians with a lot of knowledge and experience, it is hard for them to step out of the role of the teacher. They emphasized, however, that this change in role is critical to CaC pedagogy (author field notes, Cuba, 2017).

A community diagnostic tool called La Experiencia de Banes is an example of a process within the CaC pedagogy that facilitates participation of farmers in meaning making. Developed by facilitators in the municipality of Banes in the province of Holguin in Cuba, the Metodología de Banes is a participatory evaluation technique used to assess which agroecology techniques are already being practiced in a group of farmers (author field notes, Cuba, 2017). After facilitators visit various farms in a region, they convene a meeting of interested farmers. At the meeting, they bring to the fore various practices they observed that fit with the agroecology model, without identifying where they saw each practice. After listing and explaining each method, the facilitator asks farmers to record on a paper, which practices they use on their farms and add any that are missing from the list. This information is then collected and tabulated to identify strengths and needs in the community. The resulting table can serve to identify possible agroecology promoters
who use a variety of practices. It also ensures that farm exchanges and workshops match the needs of each farmer in the region. Most importantly however, it identifies farmers as the experts in agroecology. Agroecology knowledge and practices do not need to come from outside but can be generated collectively within the community. This is one example of many processes within CaC that serve to elicit knowledge from farmers, including the rediscovery of agroecological practices from previous generations.

The development and practice of conceptual agency at both an individual and collective scale, can be used to better understand the development of peasant protagonism through CaC pedagogy. An increase in the number of community members who have developed and are practicing conceptual agency amounts to conceptual growth in community (Greeno & Van De Sande, 2007). This increase of conceptual agency seems to describe the increase in protagonism, when considered in contrast to the extension model where farmers worked with disciplinary agency. Presumably, this would result in a collective movement of peasants as protagonists.

**Critique of conceptual agency.** What is missing in this concept of conceptual agency is the idea that participants should also be expected and entitled to create strategies and methods in agroecology, not just select and adapt methods of other farmers. As previously mentioned, within the CaC method, there is an emphasis on farmer experimentation, facilitating the creation of new methods that apply to the conditions of each farm. Underlying this emphasis is an assumption of competence of peasants to participate in the learning and creation process. This is where the framework of conceptual agency falls short of full representation of the processes at work in CaC pedagogy.

Decolonization theory and its concepts of body sensing and delinking, credited to Peruvian sociologist Anibal Quijano, provide a promising lens through which to examine this issue. As Walter Mignolo (2011) explains:
So once you realize that your inferiority is a fiction created to dominate you, and you do not want to either assimilate or accept in resignation the bad luck of having been born equal to all human beings, but losing your equality shortly after being born because of the place you have been born, then you delink (p. 276).

According to Mignolo (2011) delinking means, not only rejecting the negative identity projected upon one’s self, but also rejecting the two Western meta narratives on offer: capitalism and communism. To delink is to accept, instead, the possibility of another way of thinking and being. It means rejecting the notion of the “Third World,” invented by men and institutions of the “First World,” and bringing awareness of coloniality into our thinking. Delinking means creating categories of thought not derived from European political and economic theory but derived through different bodies of experience. Mignolo uses world sensing and body sensing instead of world vision because, “we all inhabit different bodies, sensibilities, memories and overall world sensing,” and the term world vision, “restricted and privileged by Western epistemology, blocked the affects and the realms of the senses beyond the eyes” (p. 276). The notion of body sensing acknowledges the embodiment of knowledge through experiences and memories of histories of oppression. Border thinking is epistemological disobedience needed to think decolonially and involves, “dwelling and thinking in the borders of local histories confronting global designs” (p. 277). Border thinking recognizes modernity not as a natural unfolding of history, but as an exported Western concept, falsely assumed to be universal. This recognition makes room for the legitimacy of decolonial versions of modernity generated by peoples outside of the Western elite (Mignolo, 2011).

If Campesinos/as involved in CaC are rejecting choices given to them by extension officers representing the industrial agriculture paradigm, but instead sharing and creating agroecology knowledge, techniques and practices, this is an example of delinking from the dominant narrative of how modern agriculture is supposed to be. It is an example of a group
rejecting the unwanted negative identity of a problem for others to solve. The creation of agricultural knowledge by Campesinos/as could be seen as an example of border thinking, where knowledge emerges from local bodies with experiences of poverty and oppression. The co-creation of knowledge is key then in the promotion of agency as well as peasant protagonism.

**Summary.** By exploring examples of CaC pedagogy through selected social learning theories, principles of flexibility, autonomy, relatedness, competence, collective agency and developing conceptual agency stand out as important in examining the development of peasant protagonism through CaC. The flexibility of agroecology as an agricultural practice necessitates action on the part of the farmer. The low cost of agroecology gives peasants a way out of dependency and debt. CaC invites farmers to participate in meaning making, allowing the autonomy necessary for the development of conceptual agency that would seem to inspire intrinsic motivation to carry out self-selected agroecology practices. Peer-to-peer learning satisfies relatedness, participation, and provides inspiring role models for fellow Campesinos/as. Autonomy and choice in adopting agroecology practices reinforces individual agency. Honouring of Indigenous knowledge and encouraging experimentation locates the source of knowledge and expertise in peasant populations.

In research on the development of peasant protagonism, it is important to investigate social, cultural and political structures that enable or impede peasant participation in the co-production of knowledge. Focusing on social structures that encourage participation will point to conditions necessary for building these Campesino/a learning networks that lead to better lives for peasant families globally.

In the following chapter, I describe the methodological framework of the study as well as its three chronological phases. After a brief outline of the study, I delve into issues of privilege in research and explain how critical educational ethnography as a theoretical frame for the case
study addresses these issues. An in-depth exploration of critical educational ethnography as it applies to this case study is followed by a description of the phases of the study. The section outlining Phase 1 includes a description of the site selection and participant recruitment processes and a description of the selected case context. The section outlining Phase 2 includes a description of methods used in observations, interviews, document collection, and initial analysis. The section outlining Phase 3 includes a description of member reflections preparation and implementation as well as the processes of analysis and presentation of findings.
Chapter 3: Methodology

This study used a qualitative, multiple stage, exploratory design. An ethnographically informed multi-site case study was designed by combining critical educational ethnography (Howard & Ali, 2016) and case study methodology (Yin, 2014). This design was used to explore a case of CaC pedagogy in practice in the municipality of Calakmul, Campeche, México, focusing on five communities as sites within the broader case of 15 practicing communities. The study is informed by ethnography insofar as it frames CaC pedagogy as a cultural practice, “a holistic view of how a culture sharing group works” (Creswell, 2013, p.103). The study will follow the case study methodology in its in-depth investigation of CaC pedagogy as a real-world contemporary phenomenon where “the boundaries between phenomenon and context may not be clearly evident” (Yin, 2014, p. 16). In this case study, CaC pedagogy is the cultural practice (Holt-Giménez, 2006) and a group of communities learning through this pedagogy represents a case.

The study used data collection methods shared by both methodologies including observation and interviews. Both methodologies emphasize the importance of developing an in-depth understanding of a context through multiple data collection methods and thick/detailed description (Creswell, 2013; Stake, 1994). The infusion of ethnographic sensibilities in a cross-cultural case study allows an emphasis on culture and participant voices, not usually found in case study methodology. The choice to explore five communities within the broader case means that time spent in each community was not as long as traditionally encouraged by ethnographic methods.

A case study design, which explores multiple sites, allowed for the investigation of the methodological flexibility of CaC. Five sites within a culturally diverse region, served as sites to explore distinct manifestations of CaC pedagogy in various social contexts. Exploring program
Wolcott’s (2008) view of ethnography as “a way of seeing by experiencing, enquiring and examining, that privileges deep understandings of context, both familiar and strange” (Vasudevan, 2014, p. 236) served as a lens through which to explore this case. The role of the ethnographer is not one of knowing, but of seeking to understand through immersion in social worlds, with interpretations of meaning as a central process (Emerson, Fretz & Shaw, 2011). For example, I am interested in how Campesinos/as involved in CaC learning “grapple with uncertainty and ambiguity, how meanings emerge through talk and collective action, how understandings and interpretations change over time, [and] how these changes shape subsequent actions” (Emerson, Fretz & Shaw, 2011, p. 5). The multi stage design of this study has facilitated the investigation of temporal aspects of meaning making as well as how climate variability and funding for program activities has shaped actions over time.

In this chapter, I begin by exploring challenges posed by this study. I then outline critical educational ethnography as a theoretical framing for the case study, including the essential elements: articulation of critical context, understanding and defining culture, negotiating relationships and embeddedness, inclusion of multiple ways of knowing and reflexivity (Howard & Ali, 2016). I briefly outline the three phases of the study, including site selection, and data collection methods and then give a detailed explanation of each phase. A rationale for the chosen data collection methods is outlined in each phase. In the final section, I elaborate the data analysis procedures and presentation of research findings.
Research and Privilege

The selected topic of research presents many challenges, the most difficult of which is the question of how to avoid perpetuating inequalities while conducting research as a privileged white woman in a cross-cultural setting with people who have fewer material resources than myself. As Daphne Patai (1991) explains, “it is the very existence of privilege that allows the research to be undertaken” (p. 137). In my case, both economic and racial privilege need to be recognized. White privilege is a “system of opportunities and benefits conferred upon people simply because they are White” (Solórzano & Yosso, 2002, p. 27). Patai (1991) claims that the existence of inequality between researcher and participant makes research inevitably unethical. This inherent inequality is partly due to

the split between subject and object on which all research depends…imply[ing] that objectification, the utilization of others for one’s own purposes (which may or may not coincide with their own end), and the possibility of exploitation, are built into almost all research projects with living human beings (p. 139).

Ethically, ethnographers must question “the quality and consequences of their own curiosity, the extent to which their ways and means of knowing and understanding less respected than exploited other human beings” (Faubion, 2011, p. 14). In other words, if there is little or no benefit to research participants, and possible harm, does the researcher’s interest in knowing or understanding outweigh the rights of the participants? Even the role of ethnographer as learner does not get around the fact that learning through research is predatory (Schep-Hughes, 2000). In research, we don’t just learn for learning’s sake, “It is not done ‘for nothing’ in a totally disinterested way. It is for something, often it is to help us understand something” (Schep-Hughes, 2000, p. 133). We extract understanding and report it to the academic world for the purposes of our own career advancement (Patai, 1991).
Between the 1920s and 1950s, the so-called ‘Golden Years’ of anthropology, researchers voyaged or were sent off to ‘exotic’ countries to do field work (Faubion, 2011; Wolcott, 2008) among the ‘savages’ of other ‘backwards’ cultures (Said, 1978). Their reports, often racist, were consumed with fascination and filed away for the grand purpose of contributing to knowledge of the diversity of human cultures (Geertz, 1973). This knowledge was often used in service of the colonial project of maintaining power by controlling the troublesome groups (Denzin, Lincoln & Smith, 2014). The supposed objective authority with which, mostly Indigenous peoples, were portrayed led to what Said (1978) calls, the creation and maintenance of the Other.

Said (1978) explained that the colonizer mentality is present in the way Westerners see other cultures, through a Western gaze that implies superior positionality. Through a critique of the Western construct of the Orient, Said’s work created a frame to illustrate the structure of cultural domination. The Orient and the people who inhabit it, were seen as “Other”. The Orient was treated as remote, distant, exotic and foreign and its peoples were treated as irrational, foreign, weak, in need of being taken care of and unable to speak for themselves (Said, 1978). Through its representation of the Orient, the West defined itself by defining what it was not, what it was superior to, creating an artificial relationship of power which served to justify the colonial mission of controlling land, resources and people. In Said’s (1978) view, telling stories has a particularly powerful effect. Representation is crucial in constructing ideology, meaning and attitudes in wider society about those being represented. As Westerners represent the “Other” through their eyes, they construct the identity of others, and attitudes toward the other. Taking the authority to represent and tell stories on behalf of other cultures is an exercise of power.

In the so-called “crisis of representation” in anthropology that began in the 70s and continued through the 90s, important questions began to be asked including, “who has the right to describe, on what grounds any description may be taken to be more truthful or authoritative than
any other, to what extent the presence of the author can or should be acknowledged within the text” (Ingold, 2014, p. 385). The questions rose naturally out of a need for anthropology to “take a full reflexive account” (Faubion, 2011, p. 14) of its own troubled history in colonization. These questions forced anthropologists to interrogate ethnography as a methodology on political, moral, ethical and epistemological grounds. Politically, anthropologists were forced to reflect on the role ethnography played,

and continued to play, in sustaining and reinforcing domination, whether by providing ‘useful information’ to colonizing powers, lending legitimacy to inherently conservative and hierarchical models of social and cultural life, or cultivating professional ignorance of the dynamics and technologies of power (Faubion, 2011, p 14).

Matua and Blue Swadener (2004) added to this list the examination of the colonial nature of the act of research itself. The act of representation is colonial when “the individuals have been stripped of their power for self-definition and self-expression by being cast in the role of the marginalized Other” (Matua & Blue Swadener, 2004, p. 12). In her book, Decolonizing Methodologies, Smith (1999) identifies research as a powerful and dirty word in Indigenous peoples’ vocabulary that still “offends the deepest sense of our humanity” (p. 1). It offends in several ways, including that “Western researchers and intellectuals can assume to know all that it is possible to know of us, on the basis of their brief encounters with some of us” (Smith, 1999, p. 1). Experiences of Indigenous peoples with research have included lies, empty promises, cover-ups, betrayals, and inaccurate/fictional ethnographies (Tuck, 2009).

The assumption of authority of privileged Western researchers to represent other cultures is called out as a perpetuation of colonialism. The inherent questions are, whose interests does the research serve? Who stands to benefit/be harmed by the methods and products of the study? Smith (1999) identifies research as, “a significant site of struggle between the interests and ways of knowing of the West and the interests and ways of resisting of the Other” (p. 2).
The assumption of objectivity upon which ethnographic authority was based was also questioned by postmodern thought. Postmodernism unveils ethnography as “re-presenting other representations” operating in, “a complex matrix of already existing alternative representations” (Marcus, 1994, p. 571). In other words, ethnography is one person’s view of what happened between people at a specific time and place. This view is shaped by researcher subjectivity, including personality, experience, social position, and interaction with participants in research (Punch, 1995). Not only does the position of the researcher influence what they hear, see, write, and find interesting, through interaction in the field the researcher effects the lives of study participants (Van Maanen, 2011).

Geertz (1973) explained that what we describe in ethnography is not an event itself but our interpretation of the meaning of events. In Geertz’s view, our data are really, “our own constructions of other people’s constructions of what they and their compatriots are up to. We are already explicating explications” (p. 9). In other words, it is important to recognize that our perceptions of social reality intertwine with those of our research participants, whose perceptions of social reality are also theoretical constructs (Howard & Ali, 2016). It follows that when we are writing ethnography we are co-constructing as much as interpreting. The construction of a text creates the reconstruction of the culture (Van Maanen, 2011). Indeed, Scheper-Hughes (2000) speaks of ethnography not as a science, but, “like poetry, ethnography is an act of translation and the kind of ‘truth’ that is produced is necessarily deeply subjective,” (p. 132) requiring of authors, “only a highly disciplined subjectivity” (p. 132). By exposing objectivity as an impossibility, the authority to represent ‘truth’ crumbles. We can no longer hide behind what Fine et al. (2003) call a “cloak of alleged neutrality” (p. 169). Negotiating this subjectivity creates significant challenges to ensuring rigorous co-construction of knowledge and strength in interpretation of results.
In recognizing the political, moral, ethical and epistemological grounds upon which ethnography as a method of anthropology was challenged, it would be easy to give up. Daphne Patai (1991) challenges those doing research across race, class and culture to not be overwhelmed into inaction by the difficulties we face, but to act if the study is worth doing. In the age of globalization and mass migration, Eriksen (2010) reasserts the importance of the project of anthropology, to understand the human condition by “providing perspective which does not take preconceived assumptions about societies for granted, which is sensitive to both similarities and differences and which simultaneously approaches human world from a global and a local angle” (p. 197).

Given my choice to continue learning from the experiences of Campesinos/as engaged in CaC pedagogical practices, “the challenge remains to make creative and usable mappings of the changed terrain and to do what ethnographers have always done: try to find our feet in a strange new world” (Gupta & Ferguson, 1997, p. 26). My goal is to use these mappings to find a way to represent responsibly, as Fine et al., (2003) explain, to “transform public consciousness and ‘common sense’ about the poor and working classes, write in ways that attach lives to racial structures and economies and construct stories and analyses that interrupt and reframe the victim-blaming mantras…” (p. 169).

**Critical Educational Ethnography**

My choice of ethnography recognizes important changes that have occurred because of the “crisis of representation”, including the decolonizing research paradigm, that have made this method uniquely suited for cross-cultural research. The built-in reflexive mechanisms and emphasis on collaboration in contemporary manifestations of ethnography make it sensitive to ethical issues of equality that inevitably arise in cross cultural contexts. Rosaldo (1989) offers that, “dismantling objectivity creates a space for ethical concerns…enabling social analyst to
become a social critic” (p.181). The purpose of ethnography becomes the communication of interests and aims of marginalized peoples (Rosaldo, 1989). This purpose makes ethnography a political act. “Taking ethnographic practice as a form of political practice means recognizing a variety of different ways in which anthropological representations may be engaged with questions of culture and power, place making and people making, resistance and subjectivity” (Gupta & Ferguson, 1997, p. 25).

Taking seriously the ethical concerns posed by the traditional ethnography approach has informed my choice of critical educational ethnography (Howard & Ali, 2016) as a framework for investigation. A blended methodology, critical educational ethnography, brings important elements of critical ethnography into educational ethnography. More specifically, it brings with it critical ethnographers’ insistence on “viewing power, practice, and meaning as essentially indivisible contours of history and society” (Springwood & King, 2001, p. 407). In educational ethnography, the ‘crisis of representation’ in anthropology prompted epistemological shifts toward constructivist and transformative paradigms, indicating an increased understanding of, “culture, context, and plurality as embedded in an ever expanding and demographically evolving populous and social change” (Howard & Ali, 2016, p. 143). In this melding of methodologies, critical ethnography brings with it assumptions, among many, that: in any society, some groups are privileged over others; oppression takes many forms; oppression is reproduced when people accept this social arrangement as natural and all thought is mediated by socially and historically constructed power relations (Kincheloe & McLaren, 1994).

The primary focus of critical educational ethnography is on “radical moves toward justice within the context of education (be it in or out of schools) for communities with whom research is being conducted” (Howard & Ali, 2016, p. 147). The choice of critical educational ethnography is a conscious move away from damage-based toward desire-based research (Tuck, 2009). In her
letter to communities asking for a suspension of damage-based research, Tuck (2009), explains that in a damage-based framework, “pain and loss are documented in order to obtain particular political or material gains” (p. 413). She argues that this practice is based on a flawed theory of change, which seeks reparations through the establishment of harm. If there are no real successes in changing the conditions politically and materially for the participants and their community, they are left, only, with a representation of themselves as damaged (Tuck, 2009). Desire-based research, on the other hand, is concerned with understanding, “complexity, contractions and the self-determination of lived lives…by documenting not only the painful elements of social realities, but also the wisdom and hope” (Tuck, 2009, p. 416). In this study, this balance was negotiated with participants through the exploration of how CaC pedagogy operates within social, cultural, political, and geographic realities and challenges in their everyday lives.

Critical educational ethnography is characterized by essential elements including articulation of critical context, understanding and defining culture, negotiating relationships and embeddedness, and inclusion of multiple ways of knowing (Howard & Ali, 2016). The following sections will outline each of these elements in relation to this study.

**Articulation of critical context.** In the articulation of the critical context of research, Howard and Ali (2016) suggest that, in designing research, critical educational ethnographers attempt to answer the question, where does this problem come from? In other words, “what are the social conditions that create this particular context?” (Howard & Ali, 2016, p. 148). They argue for a focus on historic, political, economic, social, racial and cultural inequalities that may contribute to the research problem. In other words, studies in critical educational ethnography should address questions such as: what are the structures in place that keep money out of the hands of the poor? Identifying the critical context in this study included examining the history of the region within the broader history of Mexico, race and class structures, land tenure structure,
local governance, community relationships and Campesino/a subsistence food production practices, that promote or hinder food security, food sovereignty and the livelihoods of Campesino/a families. Because of the desire-based research focus of this study, articulation of critical context will serve to illustrate the challenging socio-cultural conditions of Campesinos/as’ lives, but the balance of the study will lean toward describing how they meet, live with and negotiate these challenges.

In their paper on how race plays out in dominant social metanarratives, Solórzano and Yosso (2002) explain that race, gender, and class are intertwined. “It is crucial to focus on the intersections of oppression because storytelling is racialized, gendered, and classed and these stories affect racialized, gendered, and classed communities” (Solórzano & Yosso, p. 31). Both Fine et al., (2003) and Solórzano & Yosso (2002) critique what they see as an absence of race in analysis of oppression in critical ethnography research. Fine et al. (2003) explain that, “‘race’ is socially constructed, indeed. But ‘race’ in a racist society, bears profound consequences for daily life, identity, and social movements…” (p. 176). Moreno Figueroa, (2010) explains that in México the existence of racism is often denied because of what she calls a Mestizaje logic, where it is socially accepted that, “in Mexico there is no racism because we are all ’mixed’” (p.388). Despite this assertion, there is still an assumed and engrained white superiority, which manifests in discrimination toward those with ‘Indigenous features’ or darker skin compared to others. Mestizaje logic has its roots in ideologies of the early 19th century in Latin America where newly independent nation states attempted to build national identity through homogenization. Mixing of races was promoted as a chance for moral and social improvement for the individual, as well as the state (Moreno Figueroa, 2010). From personal experience, I have seen this manifest as classism, where people of the upper classes have ‘whiter’ skin and refuse to visit Campesino/a villages in their own state or associate with those who do so.
Racism is still clearly at work in “a context that not only denies it, but where people do not recognize themselves as racialized, [and] there is no public discourse about it…” (Moreno Figueroa, 2010, p. 388). As she further explains,

Those who locate themselves as Mexicans have learned to see and praise Indigenous peoples as an essential and vital part of the national culture and landscape, giving ‘sense’ and depth to Mexican history, but they do not seem to have any desire to ‘look’ like them” (p. 393).

This quote reveals Indigenous identity as both “legal/political and racialized” (Brayboy, 2005, p. 428) which is explained by Tribal Critical Race Theory (TribalCrit) as a liminal space. TribalCrit, as outlined by Brayboy (2005), offers a theoretical framework through which to understand the experiences of those living in this liminal space where the simple binary of White/Black does not apply.

Engaging with Campesinos/as, a group that continues to experience economic vulnerability despite direct access to land for food production, is a way to examine how power relations act to perpetuate inequalities. During observations and interviews, I was particularly attentive to oral or body language that may have indicated race, Indigenous identity, gender or class issues at play in relationships. During the semi-structured interviews and member reflections, I attempted to engage participants in explaining, or exploring how these issues affect relationships and learning.

Exploring CaC pedagogy as an alternative to traditional models of rural development and agricultural extension was an attempt to highlight ways in which CaC poses a challenge to the social conception of Campesino/a as ‘less than’. Campesino/a as illiterate, poor and incapable, has been both historically constructed and socially perpetuated to maintain economic, racial and social inequalities. A central question guiding this study has been: How does the process of
engaging in CaC learning turn this social conception on its head and instead promote initiative, leadership, autonomy and empowerment among Campesinos/as?

**Understanding and defining culture.** Geertz (1973) famously described culture as the “web of significance” in which we are all suspended and we ourselves [in concert with others] have spun, “a multiplicity of complex conceptual structures, many of them superimposed upon or knotted into each other” (p. 10). This definition places emphasis on culture as meaning making. Howard and Ali (2016) add that culture is dynamic, meaning that members of a cultural group are, “*active* authors of their social and cultural worlds” (p. 150, italics in original). Not only are we situated in the web that we continue to change, our local web is also situated in the broader web. For example, Campesinos/as in México are embedded in the local culture of their community, but also in a history of Spanish colonial rule and a continual struggle for Indigenous autonomy (De la Peña, 2007). Critical educational ethnography frames culture as pluralistic and evolving, situated in local context, histories, larger social and political structures. Culture, therefore, cannot be “understood without consideration of the historical and defining moments that serve as the genesis of its (re) production and (re)articulation” (Howard & Ali, 2016, p. 149).

Therefore, as Gupta and Ferguson (1997) explain, our identity and culture are not fixed, but continually changing in relation to each other. Culture will be framed in this study, as a complex interaction between historical experience and daily social interaction.

As an informal, social learning practice that is part of a social movement, CaC blurs the lines between cultural practice and pedagogy. Various authors identify CaC as simultaneously a pedagogy, a method of spreading agroecology, a culture, and a social movement. For example, Holt-Giménez (2006) argues that, “the ways in which farmers in [CaC] generate knowledge and share wisdom to develop their own agriculture must be viewed as a cultural practice—as a dynamic and pluralistic phenomenon” (Holt-Giménez, 2006, p. 110). This view of CaC as a
cultural practice through which farmers generate and share knowledge, experiment and enact change, resonates with my choice of ethnography as a methodology for this study.

Since CaC is situated within a broader peasant movement toward food sovereignty, its contributions to peasant autonomy cannot be separated from the broader movement. In this way, each case of CaC pedagogy in practice in México is at once creating its own unique manifestation of the culture of CaC, embedded in a wider web of CaC in Latin America and the larger web of the peasant movement for food sovereignty in the global South. This understanding of the dynamic, embedded nature of CaC, was explored through an emphasis during data collection and analysis on sociocultural and political factors that motivate, enable, or hinder participation of Campesinos/as in learning and adopting sustainable food production practices.

Cultural sensitivity is particularly important to the participant/researcher relationship, representation of communities involved in the study, and trustworthiness of the research results. Decolonization theorists recommend that researchers pay particular attention to cultural norms and expectations of the group under study and how language, mode of inquiry, location of interviews, manner of documentation, freedom to withdraw and availability of social supports can influence relationships, representation and trustworthiness in cross-cultural research situations (Blue Swadener & Mutua, 2008). Cultural sensitivity, collaboration and building relationships and cultural understanding were central to this study.

Negotiating relationships and embeddedness. In answering the challenges put forward by Daphne Patai (1991), I have chosen critical educational ethnography because of its emphasis on relationships, collaboration and reciprocity. Caution is advised in negotiating relationships in studies, such as this one, where the researcher-participant relationship involves positional inequality. Stacey (1991) cautions that building intimate relationships in ethnographic research, the norm in feminist ethnography, can open participants to the possibility of exploitation. As
Howard and Ali (2016) advise, I was honest and upfront about research purposes and length of time commitment when developing relationships in this study.

Throughout this study, I have searched for ways to engage in mutually beneficial research by focusing on relationships of collaboration. In critical educational ethnography, the goal is the “uncovering of useful and productive knowledge that will help address a concern of the local community” (Howard & Ali, 2016, p. 158). Community members take the role of identifying the concern to be addressed. In this way, Howard and Ali (2016) address the question, “whose interests does the research serve?” posed by the movement to decolonize research methodologies. Howard and Ali (2016) argue that critical educational ethnographers must, “approach local communities not simply as subjects of researchers, but as full partners in the research itself” (p. 151). In practice, this decentering of researcher authority should come in the form of involvement of research participants in every stage of the research from design to analysis (Howard & Ali, 2016). The purposes of this study were partially shaped by the participating communities, but within the PhD program, purposes of research are defined ahead of time through a research proposal and the ethics review process. Also, given the time line of a PhD program in Canada, there is not sufficient time for authentic relationship building necessary for communities to truly define the purposes of the study. Also, during the research process, I was conscious of participants’ time. For example, women with whom I conducted interviews had multiple responsibilities to take care of animals, cook, bring children to school, and were often involved in various projects in their communities. When I approached them with the idea of participating in the study, I felt that asking them to participate in defining the purpose of my research would have, in a sense, been pushing my purposes on their already busy lives, and asking for too much of their time and energy.
In my approach to this study, I collaborated with the host community organization and participants whenever possible. When I approached organizations in possible sites for research, I emphasized my interest in making my research useful to their work in communities. I also asked about local concerns, and/or areas of knowledge that would be useful to investigate and focus my investigations toward identified concerns. I also asked what kinds of documents would be useful to the organization or participants that could be produced as part of the study. This collaboration meant that design specifics emerged and changed through consultations with the organization and in some cases with promoter guides.

The principle of reciprocity demands that “the ethnographer contribute actively to the site in which she works in a reciprocal relationship with participants” (Vasudevan, 2014, p. 236). Howard and Ali’s (2016) conception of reciprocity is based on Smith’s (1999) recognition that research participants make sacrifices of time, work and emotion to participate in the study. It follows that meaningful and balanced reciprocity includes researcher service to the community outside the bounds of the research objectives, offering skills, resources, time and emotion in return (Howard & Ali, 2016).

The collaborative nature of relationships and reciprocity in the current study keep ever-present the question: who does this research benefit? “What do we do with the knowledge that we gain, produce and acquire?” (Vasudevan, 2014, p. 237). Importantly, Fine et al. (2003) report participants’ recognition of the benefits of the power imbalance between researcher and participants.

They recognized that we could take their stories, their concern and their worries to audiences, policy makers, and the public in ways that they themselves could not, because they would not be listened to. They (and we) knew that we traded on class and race privilege to get a counter-narrative out (Fine et al., 2003, p. 181).
For example, one of the participants in this study acknowledged in our interview that it was important to show the impact of the program to visitors, so that the support for the program would continue, revealing her awareness of the potential power of a visitor, such as myself, in positively affecting her life.

The organization that agreed to participate in this study received a summary of the research in Spanish that could be used to seek further funding for CaC activities. Fine et al. (2003) describe the move toward reciprocity as moving across the “researcher-researched hyphen” (p.196). In maintaining my relationship with communities beyond the research project, I can remain open to possible ways to use the power that comes with my privileged position to support the advancement of participant interests (Mutua & Blue Swadener, 2004), acting as a ‘power broker’ between Campesinos/as and the dominant class (Mascia-Lees, Sharpe, & Cohen, 1989).

Multiple ways of knowing. Critical educational ethnography assumes, “legitimate knowledge is located in the lived experiences of the cultural group (i.e., community/ies), is value-laden, and is mediated by larger social structures acting upon their social reality” (Howard & Ali, 2016, p. 153). Focusing on the point-of-view of active agents in the cultural group, means the researcher must recognize that epistemologically, what can be known, is intertwined in the interactions with said agents (Guba & Lincoln, 1994).

Emerson, Fretz & Shaw (2011) claim that, “the task of the ethnographer is not to reveal truth, but to reveal multiple truths apparent in others’ lives” (p. 4). While this view recognizes the idea of multiple truths, it still leaves authority of representation squarely in the hands of ethnographers. The postmodern premise that objectivity is not possible challenges the authority on which interpretation and representation are based (Marcus, 1994). Taking this challenge seriously, we must recognize that without a fixed authoritative meaning attributable to the author,
interpretation must always be partial, open, and unresolved (Marcus, 1994). In decentering our own authority, we make room for other voices. We recognize other possibilities of thinking decolonially and delinking from dominant western narratives of thought (Mignolo, 2011). We must also let go of the need to have a consistent, finalized analytical framework. This framework is lost with the old view of the world where there is one, simple answer. Postmodernism also challenges the old assumption of ethnography that, “the difference of others can be fully consumed, assimilated to theory and description by cracking codes of structure, through better translation and so on” (Marcus, 1994 p. 566). Postmodernism, as Marcus (1994) explains it, calls ethnographers to recognize that we all experience the world differently, thus our understanding can never be complete, leaving always a surplus of difference. This implies that even though ethnographers still hold authority to represent, this representation is only ever partial and subjective. For example, as a white person, I can never fully understand the experiences of racism known by the members of a racialized group because I have never experienced them myself. Rather than ignoring this difference, critical ethnographers and feminists call for the explicit recognition of multiple participant voices in analysis (De Vault, 1995; Mascia-Lees, Sharpe & Cohen, 1989; Rosaldo, 1989).

Rosaldo (1989) argues that these voices should include subaltern social analysis, “how the oppressed analyze their own condition” (p. 189). After all, subjectivity dictates that those involved in a context have a unique view of its inner workings, especially relationships of position and power. Ideally, Rosaldo (1989) explains, “studies, of the dynamic interplay of culture and power should predominantly include analysis by those most involved in the social processes under study (p. 189). Thus, participants are partners in research rather than subjects to be studied; the role of the ethnographer is, a learner, rather than an authority; the research participants are the experts (Howard & Ali, 2016).
Multivocal research, as Tracy (2010) explains, “includes multiple and varied voices…provides space for a variety of opinions …[including] those that diverge with those of the majority or with the author” (p. 844). Importantly, diversity is encouraged rather than lumping marginalized voices together, a practice critiqued by Saavedra and Nymark (2008). Multivocality can be achieved through collaborating with participants and giving up strict, “editorial control in turn for more nuanced analysis with deeper meaning to members at hand” (Tracy, 2010 p. 844). Multivocality and collaboration reduce social othering by centering alternative voices and experiences and being open to various interpretive strategies and knowledge paradigms (Denzin, Lincoln & Smith, 2014). In this study I attempted to create multivocal research which decentred my authority by engaging in member reflections (Tracy, 2010) and foregrounding participant voices in reporting results.

**Reflexivity.** Howard and Ali (2016) identify reflexivity as a central element of critical educational ethnography research. This sentiment is echoed by many contemporary authors including Burawoy (2003) in his paper outlining a framework for reflexive ethnography, wherein he states, “I believe that interrogating one’s relation to the world one studies, is not an obstacle, but a necessary condition for understanding and explanation” (p. 655). Burawoy (2003) speaks of reflexive ethnography as recognizing two dilemmas, the first being, “there is a world outside ourselves (realist moment), but ethnographers can only know it through their relation to it (constructivist moment)” (p. 668). The first dilemma highlights the epistemological limits of participant observation as a data collection method. The second dilemma recognizes that ethnographers are, “part of that world (internal moment) but only part of it (external moment)” (p.668). In his view, ethnographers must reflect on all four moments because there is no way to transcend these dilemmas.
As Springwood and King (2001) explain, the legacy of ethnography demands that researchers continually reflect on, “their own positioning and biases in relation to the people and the landscapes of activity they are engaging” (p. 409). Questioning our working assumptions can help make research decisions that have the interests of participants in mind. Fine et al. (2003) and Rosaldo (1989) caution against a tendency to include too much of the subjective experience of the researcher, especially studies with those whose experiences have traditionally been marginalized, because it can overshadow the voices of participants. Gupta and Ferguson (1997) urge ethnographers to remain conscious that reflexivity is not an end, but that questioning our deeply held assumptions and ways of thinking, “enables different kinds of ethnographic work to go forward” (p. 26). Throughout this study, reflexive notes were taken and selected for inclusion in the presentation of findings.

Summary. In this section, I have outlined the methodology and the theoretical framing of the chosen methodology, including the essential elements: articulation of critical context, understanding and defining culture, negotiating relationships and embeddedness, and inclusion of multiple ways of knowing and reflexivity (Howard & Ali, 2016). In the following section, I briefly outline the three phases of the study, including site selection, data collection methods and the framing of analysis. After a brief outline of the three phases, a detailed explanation of each phase follows. A rationale for the chosen data collection methods is outlined in each phase.

Research Phases

Phase 1 of the study began with the identification and selection of a research site through face-to-face meetings and e-mail communication with academics and community leaders in México. Field notes regarding the logistics of site feasibility were kept throughout and the research case was selected from various possibilities. Ethics clearance of the proposed study was obtained from the General Research Ethics Board (GREB) of Queen’s University (Appendix A).
Following this approval, Letters of Information and Consent, and permission to use photographs (Appendices B, C, D, & E), were translated into Spanish by a native Mexican Spanish speaker, and aural and/or written versions of these Spanish forms were used to obtain consent from the participants. The second phase of data collection involved observations of the CaC pedagogy in practice, as well as semi-structured, in-depth interviews with two to three participants and one promoter in each group. Phase 2 also included in-depth interviews with three key informants including a community technician, a facilitator and the regional coordinator of the community partner organization in the study. Key informant interviews served to provide another perspective on the CaC pedagogy in practice, as well as history and context of the program and the region.

Phase 3 included community visits, interviews with participants that were missed in Phase 2, follow-up interviews with key informants and member reflections (Tracy, 2010). During member reflections, initial analysis was discussed with participants and key informants, either in groups, or individually. In all three phases, relevant documents were collected to broaden the contextual information of the case, to build the scope and increase the depth of the case.

The three phases of the research design were done in the spirit of what Burawoy’s (2003) reflexive ethnography calls the rolling revisit. Each visit to the field was in conversation with the previous one, and assumptions and theories were checked during successive visits. Field notes and documents collected in the first phase were analysed to formulate interview questions for the second phase. Data from observations and interviews collected in the second phase was analysed and discussed with participants in the third phase of research. In this way, “field work is a running interaction between ethnographer and participant” (Burawoy, 2003, p. 669). Each research phase will be outlined in detail in the following sections.
Phase 1: Research case identification, permission and consultation

It is important to acknowledge that people selected me as much as I selected cases. Hosting a researcher requires effort and accommodation on the part of communities and community organizations, where they may receive relatively little benefit in exchange (Smith, 1999). In line with critical educational ethnography, in approaching community leaders and organizations, I made clear my intention to work with the communities in collaboration and reciprocity, focusing on community identified areas of focus and concern.

In the first phase, which began during a two and a half week visit to México in October of 2018, three possible research cases were identified through in-person communication with academics and meetings with community leaders. The first potential case for study was in the State of Chiapas, a mountainous region in Southern México with a large Indigenous peasant population. I made contact with an Indigenous organization of Campesino/a farmers focused on community development, La Asociacion Rural de Interes Colectivo (ARIC Independente) through a colleague I had met during a course on CaC pedagogy in Cuba I attended in November of 2017. He was working with ARIC Independiente on a master’s thesis. This colleague arranged a meeting with the elected authorities of this organization who agreed in principle, through in person verbal agreement, to allow me to conduct investigations in their region, Las Cañadas. This organization had just finished a series of funded activities of CaC pedagogy in various communities. This site was not chosen for this study for several reasons. They no longer had any funding for workshops and exchanges with farmers meaning that I would not have been able to conduct observations of CaC in practice. The key promoter in charge of CaC had recently stepped down from leadership in the organization and lived in a community that was five hours by car plus one-hour walking from the office of the organization. The community where he lived had no cell phone reception or internet, making communication difficult and posing a potential
risk to myself as a female researcher travelling alone. Also, the politically volatile nature of relations between the Zapatistas and other Indigenous organizations in the region had a strong potential to cause situations of elevated risk over the course of the study. Road blockages continued to be common in the region which could have prevented my continued access to the research site.

The second possible case was identified in the region of Calakmul a municipality in Southern México in the State of Campeche. I found this case through a personal acquaintance who put me in contact with several organizations and people who worked with Campesinos/as in the region and he thought might be using a CaC model. I met with the coordinator of the Calakmul field team of Fondo Para La Paz (FPP) to explain my area of research interest. She explained that they had an active program that used principles of CaC to promote sustainable food production practices in 16 communities in Calakmul. She also gave me documents relating to the program and showed me videos they had created about the program. This program focused on food security and food sovereignty through family subsistence, specifically food cultivated/raised at home, including backyard gardens, birds, pigs and sheep. FPP had other programs that promoted agroecology practices in growing staple crops for subsistence and sale, but she explained that they did not use the CaC model. Although I was initially apprehensive as the focus was slightly different from my original area of focus on learning agroecology in the realm of agriculture writ large, I quickly realized that this program was well within the scope of my area of research interest since it involved Campesinos/as learning sustainable food production practices for food sovereignty purposes.

In our meeting, I spoke about my intention to work with community organizations in reciprocity, my interest in my research being useful to the work they were doing and my intention to return to México for data collection as well as member reflections. After our meeting, I wrote a
short summary of my research proposal with a timeline and expectations of the organization and sent it via e-mail to her and her supervisor to request permission to conduct the proposed study. I offered to create a document outlining their approach to building and maintaining CaC learning networks as a reciprocation for their time and energy in hosting me as a researcher. My expectations included transportation and accompaniment to remote communities as well as assistance in translation if there were participants who only spoke Indigenous languages. Several weeks later I received confirmation via e-mail that I had permission to conduct the proposed study.

A third potential case was identified during the October 2018 trip and although this case was potentially very rich, it was sufficiently unique that cross case comparison would not have been possible with the other possible cases. Also, it would have focused on informal peasant-to-peasant exchanges which occurred in daily interactions, which would have required a longer stay in communities than the PhD timeline and my family commitments would have allowed. In consultation with my advisor, I decided to focus on one case with multiple sites, rather than two cases, which had been a part of my original design.

The program run by Fondo Para la Paz (FPP) was selected as the case for study since it fit within the scope of research and provided a unique opportunity to study sites within the case since the program operates in 16 communities, with groups in each of these communities working in a specific theme, including home gardens, school gardens, raising backyard birds, pigs, or sheep. The communities were also more accessible and more politically stable than the potential site in Chiapas, and I was more familiar with the area, having traveled there several times between 2005-2007.

On the next visit to México in February of 2019, I met with a facilitator of FPP to select representative or unique sites in the program. The case constituted five groups in five
communities that were selected to represent the program as a whole. Participants in the research were recruited based on groups of participants in CaC activities, within a wider community. Groups were selected for diversity in theme and social context to explore how CaC pedagogy manifests in diverse contexts. Since this program was ongoing, but had periods without active funding, this case provided an interesting opportunity to investigate the self-catalyzing dynamic of CaC, in the absence of funded activities.

The following section provides a brief overview of the case context, including geographical, climate and historical context; cultural context and land tenure structure.

**Description of case context.** Calakmul is a quiet place with communities along just a few roads that run alongside a UNESCO Biosphere reserve of 723 000 hectares founded in 1989 to protect La Selva Maya, the Mayan rainforest. Located in the state of Campeche, the municipality itself was founded in 1996 with 82 small communities, mostly inhabited by migrants from several other regions in México, 24% of which self-identify as Indigenous (Rodriguez-Solorzano, 2014). Indigenous groups include Maya Yucatec (8.5%) and various groups who migrated from Chiapas including Cho’ol, Tzeltal and Tzotsil. This is a large, sparsely populated municipality, 14,681.05km² with 30 800 inhabitants (Calakmul, 2018). The municipal government offices and the offices of Fondo Para La Paz are in Xpujil, the largest community in the municipality with a population of ~4000 people. To reach Xpujil, I traveled by bus five hours south from the Cancun Airport, switched buses in Chetumal and travelled another two and a half hours in-land.

The communities I had the privilege of visiting did not appear on local tourist maps for the most part, or on Google maps at all. In some cases the maps have a different name than what community members use. This didn’t seem to matter to the locals who were familiar with communities in the region. Calakmul is all at once a very old place and a very young place. At the heart of the UNESCO biosphere reserve, the archeological site of the Mayan city of Calakmul
reminds us that the Mayan people have lived in this rainforest for many thousands of years. The communities I visited were founded only 40 years ago. Some residence were displaced by political turmoil in Chiapas, some came in search of land, others, more recently married into the family and have settled here where their in-laws are community members. Figure 1 shows the location of the area as well as communities who participated in this study.
Figure 1: Map of study area (modified from Valdez-Tah et al., 2015)

Note. The map in box (A) highlights the State of Campeche in Mexico. The map in box (B) shows the Municipality of Calakmul in the state of Campeche. The map in box (C) indicates the communities in this case study in the Municipality of Calakmul.
The locals think of this area as marginal, *Con pocos recursos y falta de agua*, an area with little resources and not enough water. Challenges in this region include, drought, thin acidic soils, recent climate variability and lack of Indigenous knowledge among many inhabitants of agricultural practices appropriate to the ecology of the region (Rodriguez-Solorzano, 2014; Boege & Carranza, 2009). As economic migrants, Indigenous peoples from Chiapas, Tabasco and Veracruz, founded communities here with land given by the government in the early 1990s. The soil in the Yucatan peninsula has various types, but it is mostly rocky with small patches of dark earth scattered throughout. An ancient coral reef, the Yucatan peninsula is made of limestone, which means it is porous. When it rains, water does not pool into lakes or rivers, but soaks right through to the water table, which in Calakmul, is very deep. This is why agriculture here depends on rain. There is little to no standing water and the water underground is too deep to drill wells in most of the municipality. The groundwater that is available has a high dissolved mineral content, so it cannot be used for cooking. No matter how long you cook them, the beans stay hard.

People here identify as *Campesinos/as*. I came to understand this identity as a person who lives in a community rather than a town or city, and feeds their family from the land, growing corn, beans and squash in the field and raising animals, birds, and growing gardens in the backyard. They may have other employment to help with costs, but they still work the land. Most families cook with wood over an open fire, in the corner of the kitchen. Women’s work includes preparing tortillas twice daily from the corn grown by the family, as well as preparing breakfast for the men who leave to work in the field for the day at 6. Generally, women are the ones who tend to the animals in their backyards and cultivate home gardens. *Campesinos/as* in this area are hard-working people often facing struggles due to lack of water and lack of rain, leading to poor harvest.
Families who settled here struggle to practice subsistence farming in marginal geographies different from those cultivated by their ancestors. Complicated by intensifying droughts, families continue to depend on government subsidies for survival. The traditional way of La Milpa has been largely abandoned in the municipality after several decades of government subsidies promoting the pairing of monoculture planting with agrochemicals. Corn, beans and squash are still grown, but instead of the traditional polyculture planting they are grown separately in rows using herbicides to clear weeds and chemical fertilizers to feed the corn and pesticides to control the increasing problem of pest plagues (FPP, 2016a).

Communities are organized in ejidos, a communal land tenure and governance structure in which families who are members of the ejido have a large parcel of land for agriculture called a parcela, used mostly for growing corn, squash, beans, or chilies, and sometimes for keeping sheep or pigs, and a small area of land for living called a solar which is generally a 50mX50m plot. The solar is located in the community itself and includes a family living space, an area for birds and/or pigs, and usually fruit trees such as banana, lime, papaya, coconut, yucca, mango, chaya and many more. Some families also include a garden, growing cilantro, radishes and onions, mainly to be eaten with daily meals. All the food grown by the families in this study is for feeding the families first, and if there is extra it may be for sale to gain a few pesos to buy salt, soap, sugar or to pay for school fees or transportation to Xpujil.

Communities in Calakmul consist of grouped solares and include between 40 and 120 families that make up an ejido, with a few families who are pobladores, which loosely translates to settlers, or community members. Pobladores are members of the community who came to the community after its founding and asked the ejido assembly permission to join the community. If permission was granted pobladores were given a small (50X50m) plot in the village on which to live in the community, but not a parcela. Members of the ejido have different rights and
responsibilities than pobladores. Ejido members are part of the governance structure with voting rights and pobladores are not. The designation of poblador also applies to the children of ejidatarios (members of the ejido).

Participants. Study participants were Campesinos/as, both male and female, who rely on land for subsistence and/or market production. Campesinos/as were invited to participate in the study if they had participated in sharing or learning sustainable food production practices in the CaC program run by FPP. Participants of the study included promoter guides (PG) who are community members who act as guides and promote sustainable food production practices through the FPP program. Research participants also included community members learning from PGs and key informants (Yin, 2014) employed by FPP to organize and facilitate CaC activities, including coordinators, facilitators and community technicians.

Recruitment. In a meeting of promoter guides (PG) from each of the participating communities, I introduced myself and the study I was proposing. The facilitator then provided more information about why they were collaborating with me and clarified a few terms I had used that would not necessarily be used in this cultural context. I explained that I was interested in observing workshops given by PGs and interviewing both PGs and at least three participants of the workshops or members of their groups. The facilitator then asked for volunteers who would be willing to participate and began scheduling visits to each of the communities of the promoters who had volunteered. The facilitator asked each promoter who had volunteered to advise the workshop participants that I would be present and looking for research participants. Recruitment of workshop participants/group members was done in person in each community at the time of the scheduled visit. Recruitment could not be done in advance due to the remote locations of the communities, the lack of cell or internet service and limited time and resources of the organization.
Phase 2: Observations, Interviews, Document Collection, Initial Analysis

Observation. The second phase of data collection took place over a six-week period during February and March of 2019. This phase included observations of four workshops given by promoter guides in four communities, and two promoter guide meetings. Before each workshop a FPP staff member introduced me and the basics of my study. Paper copies of Spanish Letters of Information and Consent to Observe the workshop were given to all the participants. Time was given to read the letter/form, for those who did read in Spanish. For those who did not read Spanish, the promoter guide, myself and the FPP staff member assisted each participant in understanding the Letter of Information and Consent to Observe. In one case, one of the participants walked home and returned with her husband who read and signed the form on her behalf.

The first workshop was on how to create a self-sustaining system for raising backyard pigs and was attended by five community members. The second was on diversifying feed for backyard chickens for optimal health and was attended by six community members. The third workshop was on how to build a fermented compost called Bokashi and was attended by two classes of elementary school children, the older of which had a project to create and maintain a school garden. The fourth workshop was on how to keep moisture in a raised garden bed using a chopped-up banana tree trunk and was attended by ten community members. This workshop was audio recorded part way through as this group was particularly vocal in their participation and verbal permission was given by all participants to do so. The workshops lasted between one and a half and three hours. The fifth community I visited did not have a workshop planned, so we walked around the community with the promoter guide visiting the homes of people who were in her group.
Observation was participatory (Yin, 2014) during the practical portions of the workshops. I participated alongside the participants in performing tasks such as fetching water, digging holes, carrying supplies etc. The aim of participatory observation was to facilitate understanding of complex interactions among community members and PGs engaged in CaC activities. Observational data included: (a) patterns of action and inaction (Wilson, 1977) of participants, promoter guides, facilitators and community technicians, both during CaC activities, and in communities; (b) form and content of verbal interaction between research participants and participants and researcher (Wilson, 1977), including attention to social relations that inform action (DeVault, 1995); and (c) reflexive notes about my interpretation of the meaning of events, possible alternative interpretations, justification of research choices, and personal biases. Self-reflective observations are important in recognizing and recording, “the way embodiment, location, and habitus affect the ethnographer’s relations to the people studied, and thus, how these relations affect what is observed and what data is collected” (Burawoy, 2003, p. 669).

After each day of data collection, I spent between half an hour and two hours writing field notes and observations in order to create “thick description” (Geertz, 1973) of each context including attention to pedagogical elements of the CaC methodology in practice, local cultural food production and consumption practices, as well as relevant climate and geographical details. As Adler and Adler (1994) explain, the initial phase of observation yields general, unfocused, descriptive field notes about the context and as the researcher becomes more familiar with the context, social groups and processes, “elements of the setting emerge as theoretically or empirically essential” (p. 381).

As part of the field notes I also recorded, reflexive notes about my own position and influence during the workshops, and questions that needed follow-up or clarification. Ongoing observations and subsequent interview questions were based on a recursive process of
questioning, and “looking for instances that clarify, modify or negate the original formulations” (Le Compte & Schensul, 1999, p. 11) of what is happening and why. For example, in the vehicle on the way to or from communities, I would ask clarifying questions of the FPP staff to check my understanding of the community context, social groups, program development processes or meanings of local expressions. As my understanding of the context grew, I changed, removed and added interview questions over the six weeks of Phase 2.

I also attended a year end meeting with all the PGs from each of the 15 active communities (they were looking for a PG in one of the 16 communities) held by FPP at the University in Xpujil. This included presentations by each PG about their projects in their community. Each presentation included information on the situation before they began their project, their successes, their challenges and what they had learned. The presentations were followed by a circle activity where staff of FPP asked PGs to give feedback on the program so far and suggestions for the future. The feedback circle was followed by a shared meal provided by FPP. I wrote observational notes during this meeting and was also sent an electronic copy of the presentations given by all the promoters. This meeting and the document served to widen the scope of the case, as well as deepen my understanding of each site within the case.

Observations during workshops served to build rapport with participants and helped me to form a basic understanding of how the program manifested in each site. This understanding and rapport facilitated a more comfortable atmosphere in interviews that followed workshops and allowed me to adapt interview questions more specifically to the context of each site.

**Interviews.** Semi-structured, in-depth, individual interviews (Yin, 2014) were held in Spanish with one or three *Campesinos/as* at each site who had participated in the workshop. At the sites where workshops took place, I conducted interviews directly after each workshop. With the help of the FPP staff member, I explained that I was interested in interviewing the promoter
as well as three participants from the workshop. Those who volunteered to be interviewed were
given a paper copy of Letter of Information and Consent to be Interviewed (in Spanish) and given
time to read and sign it, with a pen that was provided. Again, those who did not read Spanish
were assisted by myself, the promoter guide and the FPP staff member in understanding the
Letter of Information and Consent to be Interviewed. At the site where I did not attend a
workshop, myself, the promoter guide and the representative of FPP walked around the village
visiting participants in the promoter guide’s group and touring their yards. Interviews were
thereafter conducted with three group members who volunteered to take part.

Each promoter guide was also interviewed after interviewing participants. All Interviews
were audio-recorded to enable close analysis at a later date. In one case a woman and her husband
were interviewed together because of her limited Spanish language ability. Interview questions
for both PG and participants can be found in Appendix F and G respectively. Interviews were
conducted either on the site of the workshop, which was usually in the yard of one of the
participants, or in the yard of the person being interviewed. At the elementary school, I
interviewed the teacher of the group involved in the school garden project, as well as the
promoter guide for the project. In most cases, interviews were followed by tours of the yards of
participants were conversation continued (without being audio recorded) while observing
gardens, chickens or pigs and discussing what they had learned and put into practice while
participating in the program and what successes and challenges had emerged in adopting
sustainable food production practices. I later recorded field notes about our conversation and my
observations.

Also during Phase 2, in-depth, semi-structured, individual interviews were held with three
key informants from FPP, including one community technician, one facilitator, and one
coordinator. These interviews were also audio recorded for later transcription. Interview question
guides can be found in Appendix H. Interviews with key informants served in the crystallization of qualitative data (Tracy, 2010). Crystallization, including the practice of using multiple types of data and various methods of data collection, allows, “different facets of problems to be explored, increases scope, deepens understanding and encourages consistent (re)interpretation” (Tracy, 2010, p. 843). The purpose of interviews in the overall data collection design is three-fold: (a) to privilege the knowledge of participants, (b) to check the credibility of researcher interpretations of observed phenomenon and, (c) to gain perspectives from various actors on CaC pedagogy in practice.

Interviews were semi-structured and open ended to allow the interviewee more control over the topics covered, privileging what they view as important. In practice, I added, skipped and changed interview questions during the process of the interview based on interviewee answers. Even given this semi-structured format, a power imbalance existed in the interview process. Creswell (2013) calls the interview a “one-way dialogue” since it is conducted by the researcher for their purposes. Layered on top of this, is a complex interplay of factors such as language, race, cultural differences, gender and status that influences what is shared and what is not during the interview process. For example, a Campesino chooses what he shares and withholds from a white woman from Canada and she chooses what to ask and share based on personal comfort and social cues given by him. Active in the interview process is the acknowledgement of, “…gender and race-ethnicity as ever present, though often unacknowledged, dimension of the terrain on which social relations unfold…” (DeVault, 1995, p. 613). In her (1995) analysis of racial-ethnic dynamics in interviews conducted by white researchers with African American nutritionists, DeVault argues that close analysis of interview data which acknowledges, “differences in racial-ethnic positioning will construct a more productive basis for interviewing across racial-ethnic groups than will asserting a disingenuous
claim to commonality” (DeVault, 1995, p. 614). In the Mexican context, this is especially complex given the interrelationship between class and race discussed earlier in this chapter. In my approach of researcher-as-learner, I foregrounded my inexperience and lack of knowledge of their context and my deficiencies in Spanish language skill. I also made clear in each site that I planned to return to check that my interpretations of the interviews were accurate, there were no misunderstandings and that I was representing their views and lives in a way they felt comfortable with.

**Document Collection.** In all three phases, relevant documents were collected to broaden the contextual information of the case, to build the scope and increase the depth of the case, and to triangulate the results of the observations and interviews. These documents included policy briefs based on the community diagnostic conducted in 2014; a document outlining the organizations ‘theory of change’; a document containing the presentations of all the promoters at the year-end meeting; documents outlining the job descriptions of facilitators, promoters and community technicians and a list of references about the historical context of the municipality.

**Initial Analysis.** In preparation for Phase 3, Phase 2 of the study ended with a period of data analysis of field notes, observations, interviews and documents collected in Phase 1 and 2. Between April 2019 and September 2019, data collected on the case was analyzed using Friese’s (2012) method for data analysis called, Noticing, Collecting and Thinking (NCT). Friese describes this process as iterative, rather than sequential, with thinking happening throughout. The end goal of the NCT process is developing a comprehensive understanding of how various pieces of a puzzle fit to reveal a picture of the case (Friese, 2012).

My NCT process began with listening to all audio recordings of interviews twice. The first time simply listening without recording any notes to get a sense of the interviewee’s voice and use of language. The second time, translating simultaneously into English and recording
translations by hand in a notebook. If I noticed a section of audio that seemed especially pertinent, I transcribed this section verbatim in Spanish. These sections were listened to a minimum of three times to ensure accuracy of participant quotations. This process was also used to record notes and any quotations from audio files of the workshop. This is what Friese (2012) calls, noticing and collecting, when a researcher notices important things in the data and collects pieces of data.

Since Spanish is not my mother tongue, and I am not from México, it was inevitable that I would misinterpret some connotative meanings of language. “Hazards in cross-cultural research arise [in part] from variations in culture, dialect, use of idiom or other linguistic devices” (Bazeley 2013, p. 77). Given this, in a parallel process, interviews were transcribed verbatim in Spanish by two Mexican native Spanish speaking transcribers, who signed confidentiality agreements (Appendix I). Transcripts were read as they were completed in order to check the accuracy of my English notes and the verbatim Spanish quotes I had selected. Modifications were made to documents accordingly. While reading the Spanish transcripts memos were taken in the margins to record impressions and possible codes, themes and emotions. Throughout the process of analysis, I was in communication with the transcribers to address any questions about the meaning of language use in the context of the interviews. Thus, the transcribers acted as cultural insiders who served to check researcher bias, assumptions and accuracy of translated meaning. Both cultural insiders are long-time friends whom I met while living in the city of Campeche, Campeche in 2005. One is a professional photographer, currently living in Germany, originally from a small city in the state of Campeche. The other is from Campeche and works for the Mexican National Institute of Anthropology and History (INAH).

I then worked through assembling and transcribing handwritten field notes of observations from each site into electronic files. During this process, when I noticed something
important in the data, I recorded memos of potential codes or themes, questions for follow-up and possible themes in the document margins. During this process notes relevant to the overall case and its historical and cultural context were collected in a separate electronic document called case context. The case context notes were then enriched using the documents I had collected from FPP to add details about the case such as antecedents and goals of the program explained by the participatory diagnostic documents and the organizations theory of change diagram. As I read through these documents and incorporated relevant details into the case context, questions were formulated and recorded for follow-up interviews with key informants. Files were organized into electronic folders grouped by site.

Situation mapping (Bazeley, 2013) was used to organize and clarify data from each site and plan the direction of further data collection. This aided in the process of thinking as it enabled me to begin to develop an understanding of the case (Friese, 2012) and the questions I still had to ask to clarify this understanding. As part of the thinking process during this stage of analysis, I also created diagrams that now appear in the results and discussion chapters that helped me to visualize the flow of knowledge sharing between the various actors in the CaC pedagogy, as well as critical pedagogical elements identified by participants and key informants.

Member Reflections Narrative. Based on the initial analysis process of noticing and collecting and thinking, interview quotes, field notes, observations, and memos, were used to weave together a case narrative to be read aloud during Phase 3 as part of the member reflections sessions (Tracy, 2010). A single narrative was used to ensure that assumptions about the overall case and the Campesino/a identity were checked by each of the groups in the study. For the purposes of member reflections, the narrative was written in the first person from the researcher perspective, framed as a description of what I had learned so far and what I was still wondering about. This framing ensured that I continued to position myself as a learner and the listeners as
experts of their own experience. Spaces to pause and ask for confirmation, questions or clarification were added to the narrative where appropriate.

I began constructing this narrative with three, thirty-minute periods of free writing in a notebook. This allowed me to frame the story into a narrative that could be read aloud in 20 minutes. I later typed this narrative into an electronic file and added quotes and details from my data files. I reread the narrative several times and cut several pages, to make it more succinct and to the point. I was careful to balance elements of struggle and strength, and include potentially controversial issues so I could consult participants as to whether they were comfortable with how I planned to frame them. This narrative was then translated into Spanish by one of my cultural insiders/transcribers/translator. I also consulted this cultural insider about the controversial issues and how I had framed them in the narrative to ensure that I would not be insulting anyone as I read this aloud.

**Sistematización.** As part of the reciprocal research agreement with Fondo Para La Paz, I agreed to do what is called a sistematización in Spanish. This translates roughly to a summary of their approach and process in building and maintaining the CaC learning networks. This document served their expressed purposes of hearing feedback and recommendations from an outside perspective, as well as securing funding for continuing and possibly replicating the program in new communities. This served my purposes of organizing the key pedagogical elements, learning processes, guiding principles, key roles, timelines, and organizational structures of the pedagogy in action in the case. To create this document, I once again used the method of Noticing, Collecting and Thinking. In the noticing and collecting, I incorporated my observational notes, notes from interviews with promoters, facilitators and community technicians as well as documents I had collected from FPP. My thinking during this process involved grouping my notes into headings and creating diagrams to explain capacity building as
well as steps for building the overall CaC learning network. The sistematización was written in English and then translated by one of my cultural insiders/transcribers/translator and then sent via e-mail to the regional coordinator and facilitator one week prior to my arrival in September of 2019.

**Phase 3: Return Visit, Member Reflections, Follow-up Interviews**

During a two-week period in September of 2019, I visited participating communities to observe changes in the field. In the spirit of collaboration that runs through this study, I approached Phase 3 of this study as a continuation of a conversation and a negotiation of representation of collectively constructed meaning. In other words, the purpose of Phase 3 was to check the accuracy of my understanding and my assumptions in my initial analysis. As I was conducting the initial analysis, I felt a sense of relief that I had incorporated this return visit into my study design to be able to resolve issues and questions that had emerged. During these visits, I conducted member reflections with five groups of study participants and one group of key informants and interviewed two new study participants that I did not get a chance to interview during Phase 2. I visited the sites of two of the workshops I had attended in February and March, to see how the seeds and plants we had planted together were growing.

Many conversations with key informants as well as one audio recorded follow-up interview was held during this phase. The follow-up interview was conducted with the regional coordinator of the PPP field team after all the member reflections were completed to ask clarifying questions that arose during initial analysis, during the member reflections sessions as well as from other experiences during this visit. This interview was transcribed verbatim in Spanish and coded together with the other interview transcriptions.

The purpose of this visit was to observe how the program was continuing during a different season of the year. Also, since the funding for the program being investigated had also
significantly reduced, this second visit served to observe the potential for CaC networks to be self-perpetuating in the absence of funding. During Phase 3, field notes of observations were taken in a notebook at the end of each day after returning from communities.

The change in time frame of the visit served both to investigate differences over time, and to avoid what Chambers (1981) calls “dry season bias.” Chambers (1981) explains that researchers rarely visit during the worst time of the year, the wet season, which for many people in the global South is a time of “food shortages, high food prices, high disease incidence, high indebtedness” (p. 97). My first visit to participating communities, in February and March of 2019, took place in the dry season, which was preceded by a wet season with very little rain. The second visit, in September 2019, took place during what locals told me should have been the middle of the wet season, but the rain was just beginning after a historically long drought. As such, participants had already been experiencing food shortages during the first visit, and during the second visit, rain came with a sense of relief and hope.

**Member Reflections.** In the third phase of research, member reflections (Tracy, 2010) were held with promoters and interview participants as well as key informants. Member reflections involve, “sharing and dialoguing with participants about the study’s findings and providing opportunities for questions, critique, feedback, affirmation, and even collaboration” (Tracy, 2010, p. 844). In this study, participants were asked to reflect on initial analysis of field observations and interviews, in the form of a case narrative read aloud, or given in written hard copy. In the member reflection session with key informants, they were asked to reflect both on the case narrative and the sistematización document.

It is important to note that member reflections go beyond member checking (Creswell, 2013) because they create new data and invite reinterpretation and deeper analysis (Tracy, 2010). Member reflections and follow-up interviews fulfil recommendations by Stake (1994) that
participants both act and direct in case study research through examination and critique of researcher’s interpretations and representations. Member reflections lend to the credibility of the results (Tracy, 2010), not only for the academic audience, but also for the research participants. It gives an opportunity to check if the purposes of the community have been served by the research and if the results are meaningful to participants, facilitating an ongoing dialogic relationship between researcher and participants.

I met face-to-face with the promoter and the interview participants to conduct member reflections in four of the five communities including: El Refugio, Ley de Fomento, El Manantial, and Manuel Castilla Brito. The group size ranged from two to six people and the sessions lasted between 30 and 45 minutes. There was always at least one representative from FPP present. The meetings took place in a community meeting space or, in the yard of a participant. In one case, several community members who were not part of the study sat in the circle and listened. During member reflections, the case narrative I had written based on initial analysis was read aloud to each group. This was done because many of the participants did not have the ability to read in Spanish.

The exception was in La Victoria, where the case narrative was given in a written hard copy to both the PG and the teacher of the school as they both had the ability to read in Spanish. They asked if they could read it at a later time and get back to me, but since I did not have a chance to return to this community, staff of the organization agreed to check with them during their next visit to the community and send me audio recordings of the feedback that was given by them. When I checked in with the facilitator, Rey, after two months, he told me that he had asked the two men for their feedback on my document and they both said they did not have any feedback or comments and they had no issues with what was written. The following table outlines the data collection during each of the visits in each of the communities.
Table 2

Data Collection in Phase 2 & 3

<table>
<thead>
<tr>
<th>Community</th>
<th>February-March 2019 Phase 2: Observations &amp; Interviews</th>
<th>September 2019 Phase 3: Member Reflections Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Participants</td>
<td>PGs</td>
</tr>
<tr>
<td>El Refugio</td>
<td>3 (Int.)</td>
<td>1 (Int.)</td>
</tr>
<tr>
<td></td>
<td>5 (Obs.)</td>
<td></td>
</tr>
<tr>
<td>Ley de Fomento</td>
<td>5 (Int.)</td>
<td>1 (Obs.)</td>
</tr>
<tr>
<td></td>
<td>10 (Obs.)</td>
<td>2 (Int.)</td>
</tr>
<tr>
<td>Castilla Brito</td>
<td>1 (Int.)</td>
<td>1 + Spouse (Int.)</td>
</tr>
<tr>
<td></td>
<td>4 (Obs.)</td>
<td></td>
</tr>
<tr>
<td>El Manantial</td>
<td>3 (Int.)</td>
<td>1 (Int.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>La Victoria</td>
<td>~35 students + 2 teachers (Obs.)</td>
<td>1 (Int.)</td>
</tr>
<tr>
<td></td>
<td>1 teacher (Int.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Meetings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 (Obs.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 (Obs.)</td>
</tr>
</tbody>
</table>

Note. PGs refer to Promoter Guides and FPP staff refers to coordinators, facilitators and community technicians who are part of the *Fondo Para la Paz* staff team. A full list of abbreviations can be found in Table 1.

To begin each member reflections session, I was introduced by the representative from FPP who welcomed participants and thanked them for coming and briefly explained the purpose of my visit. I then explained that I would read a narrative aloud that I had written based on my experiences with them in workshops and the interviews. I explained that it was about the program in general and that I had visited four other groups that were also involved in this program. I explained that the reason for my visit was that I wanted to make sure that they were comfortable with how I was going to represent them. I told them that I would stop to ask them questions, or to ask for changes or to confirm that they were comfortable with what I had written. I also said they could interrupt me any time if they wanted to change or add or remove anything or had any questions. As part of each session, I paused at an appropriate moment in the narrative to ask how
things had progressed after the workshop I attended during my previous visit. Each time I paused, I began an audio recording to capture what was said by the participants. These audio recordings were later transcribed verbatim in Spanish and grouped into one electronic file for each session.

The member reflection session with the key informants was an in-depth group analysis of the case narrative and the sistematización document. Three staff participated, the regional coordinator, the facilitator and a community technician who had been a promoter in his community when I had visited previously. During this session, both documents and accompanying diagrams were projected on the wall of the FPP office and I read them aloud and took notes or made changes directly to the document as suggestions were made. This session lasted three hours and sections were audio recorded for later close analysis. These recordings were not transcribed, instead, changes were made directly to the documents and diagrams and the final documents were sent to the organization with changes via e-mail. One exception to this was a section of audio that recorded the community technician’s answer to one of the questions in the case narrative related to his former role as a promoter. This section was transcribed in Spanish and coded with the other transcriptions.

**Changes in the Field.** During the first 15 minutes of the first session of member reflections sessions with participant groups, it became clear to me from the body language of the participants that the way I had constructed the case narrative was too general to be relevant to each specific group. It was also clear from my observations of body language and participant attention span that it was too long. As I read the case narrative aloud, I began skipping sections that I deemed were not especially relevant to this group and reading only sections that contained a quote from this group or theme that I thought was particularly relevant to their group. I also made sure to read the sections containing questions for the group about Indigenous identity and relationship to federal government programs, since I wanted to check with each participant that
they were comfortable with how I framed these issues. Since the next two member reflections sessions were scheduled to take place that same afternoon and early the following morning, I used a similar strategy with those groups. This meant, of course, that the member reflections process did not allow me to check all the details of my initial analysis with each group. However, disengaged participants would not have reflected upon my analysis in an authentic way, making the exercise futile.

Over the weekend, I created two new member reflection narratives that were specific to the last two sites. I did so by reading over my field notes and observations and listening to the audio of the interviews and choosing quotes from the transcribed files. The new case narratives were written in English and translated with the help of an on-line translation tool. The facilitator and coordinator of the FPP staff team then read through these documents as a favour to me and made any corrections before the next member reflections sessions.

The member reflections session that followed was the most successful in terms of participant engagement and discussion. Attention did not wane as I read the narrative and one participant asked if she could have a copy of the narrative after the session. The last member reflections session was in La Victoria with the promoter and the elementary school teacher who were cooperating on a school garden. Since the teacher was busy teaching when we arrived, and both the teacher and the promoter guide were able to read Spanish, I decided to provide them with paper copies of the case narrative and ask them to give me feedback after they had read it. Unfortunately, I was informed by FPP staff that we would not be able to return to that community during my visit, so I asked that they record audio of feedback from the promoter guide and the teacher and send it to me electronically.

During the member reflections session with key informants, it became clear that the case narrative, as I had originally written it, was more useful to the organization than to the
participants. They expressed that it allowed them to hear their program expressed through the voices of the participants and that it gave them a chance to think more deeply and reflect on their goals, challenges and what they had accomplished, which they rarely had time to do. They also said the stories and how I had written them would be useful in securing further funding as the narratives illuminated the positive impact of the program and the complexity of the lives of Campesinos/as.

Analysis and Presentation of Findings

Analysis and presentation of findings used aspects from both ethnography and case study methodologies to address the research question: How does the culture created by CaC pedagogy in practice promote the development of peasant protagonism and the use of sustainable food production practices among Campesinos/as? Specific attention was paid to a) sociocultural conditions that enable/hinder co-participation in CaC, b) pedagogical aspects of CaC, c) motivational factors for changing food production practices and d) motivation factors for taking on the role of a promoter guide.

As outlined in each phase above, analysis occurred throughout, in the spirit of Burawoy’s (2003) rolling ethnographic re-visit. Observations rely on the perception and subjective interpretations of the researcher (Adler & Adler, 1994), and “critical researchers maintain that the meaning of an experience or observation is not self-evident” (Kincheloe & McLaren, 1994, p.144). Thus, interviews and member reflections and consultation with cultural insiders served to validate, or invalidate observations, and assumptions of meaning. Analysis was a continual negotiation of the meaning of the experience of CaC pedagogy. Figure 2 outlines the various stages in this analysis and the data that were analyzed at each stage.
Since the first two stages of analysis were discussed in the sections describing the first two phases of research, the following sections will describe the final stage of analysis including the coding process and the presentation of findings.

**Coding.** During the second stage of analysis, audio collected during member reflections, new interviews and follow-up interviews during Phase 3 were transcribed verbatim in Spanish by a native Mexican Spanish speaker. Field notes from Phase 3 were reread and typed into electronic files, organized by site, or added to the file of case context notes. Data collected during Phase 2 and Phase 3 was uploaded into InVivo software for coding.

Using the Friese’s (2012) method of Noticing, Collecting and Thinking, I engaged in a continual cycle of noticing patterns of meaning, naming that meaning using codes from initial analysis or emergent codes (Patton, 2002), aggregating text with the same code, thinking about codes and collecting similar codes into themes. Documents uploaded into InVivo software for coding included observational field notes from each site, case context notes, transcriptions of
interviews with participants and key informants and transcriptions of member reflections with participants. Using InVivo software, segments of text were marked with emergent codes or codes from initial analysis as applicable. Often, more than one code was added to a segment of text. Segments of text with the same code were then aggregated from the various documents.

After the first pass through all of the data files three steps were followed in an iterative way until I was ready to decide on the final themes that would be discussed in the study. The steps were as follows; a) cleaning the codes to remove errors and redundancy, renaming codes as needed; b) solidifying codes by first examining codes with two or fewer references and deciding if they are sufficiently relevant to be kept, then merging codes with similar meanings or separating codes that were too general into more specific meanings, and c) choosing initial themes and grouping codes under eight broad themes. During this third step, to aid in the visualization of data, concept mapping (Bazeley, 2013) was used to explore relationships between codes and to generate broad themes.

Once I had decided on initial themes, I then printed the code book and cut out each code so I could physically move each code under each theme. This physical process allowed me to move codes around until I was happy with how they were grouped. During this process, I changed the names of the initial themes and regrouped the codes several times before deciding on a final arrangement. I then typed the list into an electronic document with a bulleted list of codes under each theme. After finalizing themes, I aggregated text from each code under each theme and read through the data. This was done to identify variance and omissions, lending sensitivity to meanings and checking the validity of the themes identified (LeCompte & Schensul, 1999). During this process I aggregated two themes to create a total of six themes.

With the goal of increasing the clarity and reliability of my themes, I translated 10% of the data into English in order to engage in external conversations with a critical friend (Foulger,
A critical friend is someone external to the study who can provide insight into analysis through conversations with the researcher. As is recommended by Stieha (2014), my critical friend was chosen because we had a trusting professional relationship and I had also acted as a critical friend for her when she was working through her doctoral data analysis several years earlier. She had significant experience in qualitative coding and expertise in the fields of education, professional development, and motivation theory, but had no experience with the research sites. After agreeing to take part, she signed a copy of the confidentiality agreement (Appendix I).

Over a four-hour period we engaged with and discussed the meaning of codes and themes. I began by describing the participants, the program and the context of the five sites within the case. I answered her questions about background information and shared my codebook (Appendix J) and a document with my six themes and their aggregated codes. After discussing the themes and my rationale for each one, we both independently assigned themes to passages in a hard copy of a sample interview and subsequently discussed why we had chosen to assign specific themes to each passage. Because of our discussion, I moved several codes into different themes, which helped to further solidify themes. I also changed the phrasing of some themes to better explain the meaning they encompassed. After our initial meeting, I shared the remaining translated interview transcripts with her via e-mail and we separately assigned themes to passages. Two weeks later, we met again for two hours to compare our decisions and discuss our disagreements. This process helped me to clarify my analysis and the underlying logic of the decisions around theme selection and analysis.

Presentation of Findings. The presentation of findings combined elements of critical educational ethnography analysis as well as case study methodology. Analysis presented include, thick description of the critical case context, description of the knowledge sharing culture,
description of each site context, site themes illustrated by participant quotes, and researcher reflexive vignettes. These elements were woven into site narratives for the first results chapter, which includes descriptions of the socio-cultural and geographical case context, brief history of the region, and program background including pedagogical elements and guiding principles. Narrative form was used to foreground the perspectives and knowledge of the research participants and to portray the complexity of the lived experiences of the participants within the contextual conditions of the culture sharing group.

Presenting narratives from each site promotes multivocality (Tracy, 2010), rather than lumping participant voices together. Spaces were left for surplus difference, meaning that the interpretive framework was necessarily partially unresolved (Marcus, 1994), recognizing that there are other existing possible representations. In line with multi-vocal research, different perspectives on an issue were included rather than generalizing across perspectives. The narrative form also serves as a reminder to the reader that this is one person’s view of what happened between people at a specific time and place. It is important to note that this analysis was for the purposes of understanding the complexity of the case itself, but not for generalizing beyond the case (Creswell, 2013). The second results chapter includes an analysis of the themes which emerged from the data.

Both case narratives, and sistematización documents were used as the framing for both of the results chapters. Quotes were added to the site narratives from interviews, member reflections and case notes to illustrate themes. Segments from field notes were selected to create researcher reflexive notes to make researcher field analysis, decisions and disagreements transparent. Social critique was negotiated through the active inclusion of participants in analysis through member reflections, making the process open and inclusive of various opinions and ways of knowing.
Reciprocity in Reporting Results. As Mascia-Lees, Sharpe and Cohen (1989) remind us, in writing analysis it is important to remember who we are representing and for what purposes. In the reciprocal relationship I developed with FPP, it was important to present them with results that were useful to them. To this end, notes collected during the key informant member reflection session were incorporated into both the site narratives and the sistematización documents and the requested changes were made to diagrams and document text. These changes were made from the Spanish audio directly to the Spanish text to avoid loss in meaning. Final copies of these documents were then sent via e-mail to the coordinator and facilitator of Fondo Para La Paz. Documents were sent in Spanish in a file format that could be edited by the organization. In this way, this organization owns this data and can use it as they see fit.

Summary. In this chapter, I have outlined the methodology of this multi-site case study within the framework of critical educational ethnography. I have discussed challenges inherent in my choice of research focus of CaC pedagogy in practice in Southern México and provided a rationale for my choices, given these challenges. Throughout, I have attempted to address, to the extent possible, the ethical, moral, political and epistemological challenges of the research study. I have described the three phases of this qualitative exploratory design with a particular emphasis on research participants as partners in collaboration, and relationships of reciprocity. These efforts move the work away from a damage-based framing, to one that is desire-based. I have also explained how the methodological design has attempted to capture the nuances of the context, considering history, language, race, politics and power. In the final section of this chapter I have outlined the process of analysis that was followed in the three phases of the study and laid out a plan for the presentation of the research findings.
In the following two chapters I describe the results of the study. Chapter 4 focuses on the work of the community organization in the case and thick description of four of the research sites. Chapter 5 explores the themes that emerged from the data.
Chapter 4: Program Results

This chapter includes results of the case study including an outline of the basics of the program under study run by the partner organization Fondo Para La Paz (FPP) and site descriptions of four of the communities that make up the case. These descriptions were compiled from field observations, documents, interviews, informal conversations and member reflections. In order to avoid breaking the narrative of the chapter, I have not referenced each of the sources specifically. If there is no source referenced, it can be assumed that the information comes from a compilation of observations, interviews, informal conversations and member reflections. All names used are the research participants’ real first names. When given the option in the Letter of Information and Consent to use pseudonyms or their real names, all participants chose to use their real names. As there were several women with the same name in this study, middle and last name initials were used to distinguish them when quoted. Since data collection was conducted in Spanish, quotes have been translated by the author into English with the help of an online translation tool called deepl (www.deepl.com) and in consultation with two Mexican, Spanish-speaking transcribers/translators/cultural insiders. In cases where the meaning of the text could not be translated with confidence, or the translation did not convey the full meaning, possible meanings are discussed in the text. In some cases, the Spanish word was used, in italics, as the meaning was context dependent and translation would have changed the associated meanings experienced by the reader. All photographs in this chapter were taken by the author.

Program Background

Today, it was made clear to me that CaC pedagogy is operating all the time on an informal basis. Of course, Campesinas/as are sharing knowledge with each other as they learn from their practice. Today I was told a story of one community member in Calakmul who had taught over 70 other Campesinas/as how to produce honey organically. The Campesino who told me this story, also said “hace falta un facilitator” [what is missing is a facilitator]. He saw a need for a facilitator in organizing this sharing of learning on a
larger scale. He explained that there could be so much more done with the help of a facilitator (author field notes, México, 10/18).

The organization *Fondo Para La Paz* (FPP) began its work in Calakmul in 2011. FPP is a small NGO that has been in operation for 40 years, and at the time of the study, worked with communities in three regions of Southern México. Their mission was to, “promote the development of Indigenous communities living in extreme poverty, increasing peoples’ capacities to generate their own living conditions” (FPP, Website, 2019). Their small field teams in each of the regions worked toward community level self-sufficiency through sustainable community development programs that were developed through reflexive and participatory processes in each local context. The organization’s theory of change included three main aspects: (a) providing infrastructure to satisfy basic needs that improve the living conditions of families, which, in turn generates an environment conducive to self-sufficiency, allowing for the design of local projects that contribute to community empowerment, (b) generating exchanges of knowledge, promotion of community organization, as well as the identification and strengthening of capacities of leaders at the community level, to build a participatory scheme for the resolution of common problems that can influence the local and regional public sphere, and (c) promotion of sustainable techniques and technologies appropriate to the characteristics of the environment and the needs of the community (FPP, Website, 2019; Rey, Fac. Int., 02/19).

In 2014, FPP engaged in a participatory diagnostic in 16 communities in the municipality of Calakmul, asking community members to identify their needs, problems, assets, and strengths. FPP used what they learned in this diagnostic to develop programs with these same 16 communities (Rey, Fac., Int., 02/19). Although the FPP field team in Calakmul ran many sustainable community development programs relating to food security, sustainable agriculture, and water access, the focus of this study was on the program that used a *Campesino-a-Campesino*
(CaC) model to promote sustainable food production in mostly backyard and school spaces. This program focused on household food production through activities such as raising backyard birds, pigs, sheep and gardens. Most of the food was for autoconsumo, family self-provisioning, but some, mostly groups working with pigs or sheep, were for sale to local markets to generate family income. Facilitators, promoter guides and community technicians were key roles in building and maintaining CaC learning networks. Promoter guides (PGs) were members of each community that were recruited by the organization based on their enthusiasm for learning, ethic of participation, communication skills, and willingness to share their learning with other community members. Facilitators and Community Technicians (CTs) were paid staff that facilitated implementation of projects including installation of infrastructure. They also organized workshops and exchanges as well as worked with promoter guides in supporting their learning and growth. All three of these roles were involved in coordinating actions of the groups in the CaC learning network (SMR, 09/19).

The idea of using a Campesino-a-Campesino model with PGs grew out of the participatory diagnostic process. FPP staff decided that for this program to work well at the community level, a guide would be needed in each community that would be a leader, a reference person on a specific topic, with knowledge and experience in raising animals or growing gardens (SMR, 09/19). During the participatory diagnostic they found, among other things, that in general there was a lack of access to veterinary services and many animals died of disease. They found issues related to sanitation, reproduction and health of animals being raised by community members (FPP, 2016b). They heard experiences in which community members had vaccinated their animals themselves, but with the wrong doses. They heard that some communities had bad experiences with organic fertilizers because they applied them incorrectly and burned their plants. From this came the recognition that having a PG who could validate sustainable practices by
implementing them at home, would be important since it would be hard to trust a practice that one has seen to have damaging effects. During the diagnostic, they also found that there was widespread use of agrochemicals and a significant loss of the traditional way of growing crops called La Milpa, where corn, beans, squash and other plants are grown in a polyculture (FPP, 2016a).

Having a PG assemble and organize theme-based groups was a way of trying to help communities to make the most with their knowledge and investments. PGs acted as guides for their groups, but they also continued learning and developing their own skills through workshops and exchanges of experience with FPP. PGs were volunteers who received only a small amount of money to cover their travel expenses to meetings, as well as chart papers and pens for their workshops (Rey, Fac., Int., 02/19). PGs were selected from participants of capacity building workshops and exchanges of experience organized by FPP in specific themes related to sustainable food production. They were asked to be promoter guides based on their consistent participation, communication skills, willingness to learn and innovate, and their experience in carrying out practices learned in the workshops. The process of recruiting PGs was careful and continuous. FPP staff spoke with potential PG candidates to find out which of them would like to participate, and who would have the time for the commitment needed to be a PG. To be a PG requires time, commitment and willingness to learn and share with others. PGs attended capacity building workshops and exchanges of experience in sustainable food production practices on a continual basis as part of their role (SMR, 09/19).

In the CaC learning network built by FPP, each community had a group of Campesinos/as, of which the PG was part, who were interested in the topic chosen by the PG. What PGs chose as their topic generally matched their interest and aligned with their cultural gender roles. Women PGs (n=8) worked with other women on the topics of backyard birds, pigs,
and home gardens. The exception was PG Olivia who worked with two groups of mixed gender, one with pigs and the other with sheep. The male PGs (n=4) all worked with children or youth in the topic of gardens. When I asked the male PGs about this choice, they indicated that they were motivated by two things: firstly, the desire to pass on knowledge of sustainable production to the next generation and secondly; difficulty working with adults, especially other men, who were fairly set in their ways when it came to agricultural production (SMR, 09/19). These two motivations are discussed as related to various themes in the next chapter.

In some cases, one community had two groups working on different topics, such as gardens and sheep. Both PGs, and their group members identified as Campesinos/as and in some cases also as producers. The PGs and their group members were from the same community. They were neighbours who spoke the same language and could walk to each other’s houses to check in with each other about problems and share successes. Due to their proximity, they were able to spend time working together, organize themselves to share tools provided by FPP and share resources such as manure, green manure, and compost. PGs found interested participants in their communities by inviting their neighbours, in person, to workshops, or by announcing a general invitation to a workshop on the community speakers that could be heard throughout the village. In some cases, groups had already been established through previous FPP projects in the community, or through previous rural development programs active previously in the region.

Participation in this program was voluntary. Choice was an important part of how this organization operated. Participation brought benefits and responsibilities. The group members were responsible for participating in workshops, and implementing what they had learned from the promoter guide in their own yards. Participation meant that the CT and PGs showed the participants how to implement a practice, or build a piece of infrastructure and group members were responsible for replicating it. Benefits of participation included receiving material to build
much needed infrastructure such as rain water collection systems, chicken coops, pig pens, and fencing, to name a few. Benefits also included capacity building in practical and theoretical knowledge related to sustainable production system management. Through workshops and exchanges of experience, FPP introduced sustainable food production practices that were low risk and could be done on a small scale with what community members could find in the local area. The program pace was slow and careful, introducing new practices and making new proposals one at a time to allow time for implementation.

The role of the PG was to be a motivator and a guide who shared knowledge and practices with community members which they had learned through participating in workshops and exchanges of experience. They shared this knowledge both by giving workshops for their groups as well as one-on-one during home visits with their group members. As part of their responsibilities, PGs implemented the practices they had learned in their own backyards to validate their efficacy, and to demonstrate to their participants that these techniques were worth making an extra effort to put into practice. PGs visited families in their group every 15 days to check how they were implementing the learned practices, offer guidance, advice and help when things didn’t go well. The PGs met as a group in Xpujil each month, taking with them photographs of what their group had achieved to show to FPP staff and other PGs. To travel to Xpujil, where the FPP office was located, took between 45 minutes and one and a half hours, depending on which community they came from and their form of transportation. The following diagram outlines the knowledge sharing process in the CaC network.
Each black dot represents a community member. The diagram represents two communities, showing that there can be more than one PG in each community working with different groups on different topics. The black dots that are highlighted in red and then circled in blue represent the promoter guides that were selected for each topic [birds, pigs, sheep, gardens] in each community. The arrows represent knowledge sharing and exchange. PGs exchanged knowledge during their monthly meetings and many had also travelled to other communities to give workshops or help other promoters with vaccination camps (SMR, 02/2019). As the diagram shows, not everyone in a community participated. Also, important to note, knowledge sharing was either unidirectional or bidirectional (knowledge exchange) depending on the experience and knowledge of the participants, as well as community relationships. Also, in some communities the groups were much more established and worked well together, exchanging knowledge with each other independent of the presence of the PG, whom they still valued as an important source of knowledge and new ideas (author field notes, México, 03/19).

FPP had a small field team in Calakmul consisting of a coordinator, two facilitators, and two community technicians, with a few other part time staff helping with various projects. The facilitator for the program under study was responsible for coordinating and facilitating promoter meetings, workshops, and exchanges of experience, providing support during promoter guide led
workshops when needed. The facilitator also met individually with PGs to create goals and plans each semester (SMR, 2019).

Community technicians were responsible for communication and relationship building with communities and managing ongoing projects in eight of the 16 communities. Their role included visiting each community to check in on how things were going, what was needed, and to help solve issues and offer guidance. In general, they were responsible for all the specific technical aspects of projects including infrastructure and sustainable food production practices. Community technicians demonstrated how to build infrastructure and facilitated the replication of infrastructure built by community members, often delivering supplies, supervising the work, and coordinating volunteers to help. Community technicians also participated in workshops and exchanges of experience with promoter guides and community members to build their own capacity and knowledge in sustainable food production practices (Ezequias, Int. 02/2019; SMR, 02/2019).

As I came to learn, the process of building and sustaining CaC learning networks was iterative and opportunities, challenges and unique results emerged organically as part of this process. Staff in the FPP Calakmul field team had already learned that the CaC model was working to move them toward their broader objective of supporting household and community self-sufficiency. As will become abundantly clear as the results section unfolds, the role of promoter guide was key to the goal of self-sufficiency in communities. The following sections describe my experiences meeting and interviewing people and observing workshops in four of the 16 communities that FPP works with in Calakmul: El Refugio (backyard birds), Manuel Castilla Brito (pigs and biogas), Ley de Fomento (home gardens) and La Victoria (school gardens).
El Refugio: Backyard Birds

I first met Candelaria, a PG, after the formal part of the promoter meeting in February in Xpujil, where I had been introduced to all of the PGs and had briefly explained my research project. Candelaria approached me to show me photos of her work on a small laptop computer. Her group had made feeding containers for their backyard birds out of recycled pop bottles and buckets. The design incorporated changes in the size of the holes in the buckets so the birds could access food as they grew, but larger birds couldn’t get into the food of the smaller ones. Rey, the facilitator for the program under study, explained that it had generally been a practice of families in the region to simply throw the grain out on the ground for the birds, but that this could be a site for spreading infections as well as wasting food. She also showed me photos of where they collect the bird manure and let larvae grow, which they, in turn, fed to the birds. Several of her photos showed her with an older woman, who she explained needed some help disinfecting the bird sleeping area by spraying it with a limestone white-wash and garlic mixture. She explained that you let this mixture sit overnight and it helped prevent animal diseases. It was evident that she was very proud of the work she had done.

Rey explained that they paid the PGs very little, but they did a lot. Candelaria responded that the support was very helpful even if it is a small amount, because all of her children were in

Figure 4: Bird feeders made by group members
school, and because of FPP she was able to pay school fees. She mentioned that she had learned a lot, not only as a PG, but she was also part of a group in this program learning about agroecology in home gardens. She had an experimental plot at her house, as well as many types of fruit trees. Rey, said that it was hard to convince people to make change; Candelaria agreed. I responded that I was very interested in exploring why and how they have made change through their work.

After my first meeting with PGs, when one PG asked if I had traveled on an airplane and how long it took me to get there and how much it had cost, I answered honestly, adding the fact that my University had funded my trip to be there. This made me keenly aware of the economic mobility I experience. I also recognized that my ability to fly cheaply depends on those who have more economic means than myself, who fill up flights to Cancun from Canada and the USA, making my flights cheaper. As these vacationers fill up resorts in Cancun, they lure Campesinos/as out of the countryside all over the peninsula toward Cancun in search of jobs, and economic mobility. They make up the bulk of the low wage labour, grounds keepers, room cleaners, that keep resort owner’s profit margins high. The fact that my currency has a favourable exchange when paying for hotels, transportation and meals depends on global histories of colonial power. This positions me at an advantage, with more means to access what I need and want (author field notes, México, 02/2019).

The next week, when I interviewed Candelaria, I learned that she had always had birds, her parents also, and that she enjoyed raising them. Her mother had arrived 20 years ago in this community. They migrated here after her parents moved around, working on various ranches. Her mother was originally from a community in Tabasco, more than 400 kilometers away. When I later asked her and her group why this area was attractive to migrants she explained,

The advantage of coming here is that there is land. There are places where there isn’t any more [land] and you have to buy it, but here you can ask for permission from the local *ejido* leaders and if the assembly approves the request, they give you a parcel of land in the community, a 50X50 plot, and you can be a part of the community. This implies responsibilities of cleaning etc. *las fajinas* [community chores], but the advantage is you can come here and become a part of the community, a *poblador*. That is why people come, even though it is far away (Candelaria, PG, MR-Refugio, 09/19).

She also explained that if you came to the community with money you could buy a right to be in the *ejido*, you would buy your 50m x 50m home plot for living and your *parcela* of various hectares and you become an *ejitario*, meaning that you would then be part of the
decision-making process in the community in the assembly of *ejitarios*. “As a *poblador*, no, you don’t have voting rights in community decisions or access to *parcelas*...unless you rent from someone” (Candelaria, PG Int., 02/19). I found out later from Rey that it was not uncommon for *ejido* members to exclude *pobladores* from eligibility for benefits from external funding or programs administered through the *ejido*, but this depended on the internal regulations of each *ejido*. Rey told me that FPP made a point of opening its programs to anyone who wanted to participate.

The next week, I travelled with Ezequías, the Community Technician for El Refugio, to observe and participate in a workshop given by Candelaria. The workshop covered the basics of balanced nutrition for backyard birds as well as a review of various bird infections, how to treat them with local plants, as well as prevention with vaccines. There were four older ladies in attendance, likely in their 50 or 60s and one younger woman with a small child. The workshop was held on a cement porch that seemed like a community gathering area. There was a table set up in the middle, but no chairs. The participants sat along the low cement railing along the side. I sat with Ezequías along the other railing in front of Candelaria, but as the sun started to move on to my back, I moved forward onto the floor to be able to stay in the shade.

While Candelaria put up three chart papers on the wall with diagrams and Spanish text, Ezequías stood up and welcomed everyone, thanking them for coming and introducing me to the group, including why I was there and what my study was about. I spoke briefly about my study and shook everyone’s hand and handed out permission forms. He and Candelaria helped me explain the permission forms verbally to the four older women who said they could not read.

Candelaria began her workshop by welcoming everyone and thanking them for coming and thanking those who had brought materials for the workshop. She then went through the elements of a balanced diet for backyard birds including vitamins, nutrients, minerals, and
protein. She then spoke about the importance of measuring the quantity of food needed to avoid waste and to make sure the birds were getting enough to stay healthy. She included examples of each food that contributed certain nutrients needed by the birds, referring to local sources that were available in her community.

She read aloud from a binder, mostly looking into the binder, referring to the chart paper text and diagrams up on the wall from time to time. In the heat of the afternoon, attention was waning after the first 15 minutes and one participant began nodding off. She regained their attention when she asked questions about what they had learned in a previous workshop. They all answered, seeming to be familiar with the material. She pointed to a drawing on the chart paper that her daughter had done showing how to diagnose if the birds had sufficient food, based on the bird breast shape and size. At one point she looked up from the binder and reminded the group of someone who had come to give them a workshop named Raul, who had spoken about the importance of separating sick birds from the others, and if needed, sacrificing them. Ezequías added that it was important to burn the bodies of the sacrificed birds so the disease could not spread to the others.

Candelaria continued to read about injections and paused to remind participants of the previous workshop when they had learned this. She verbally explained exactly where to make the injections on a bird and several participants added their thoughts. She seemed to be doing a summary of all of the workshops she had done before. I couldn’t help but think she might have been doing this for my benefit, but when I asked later, she told me that it was not for my benefit but because she felt it was important to review material with the group because they often forgot.

I found the workshop today hard to sit through. The fact that Candelaria read from the binder made the presentation un-engaging. I wasn’t surprised that some of the participants nodded off. I wonder if PGs get any capacity building in facilitation techniques? (author field notes, México, 02/19).
When I asked Rey the next day about this, he said they don’t receive any capacity building in facilitation or communication. After my time in Calakmul, observing various workshops given by promoter guides, I recommended to FPP staff that they offer PGs capacity building in facilitation of workshops. The FPP staff took this feedback graciously and said they would include it in a proposal for funding that they are working on.

After the theoretical portion of the workshop, using the supplies that two women had brought with them to the workshop, Candelaria demonstrated two recipes for bird feed that could be made using things they had growing around the house. She asked everyone to gather around the table where she showed bowls of corn, cooked ground beans, chopped and dried chaya, and dried ground eggshells. She mixed these in a larger bowl, reminding participants to dry the eggshells in the sun before grinding, to avoid toxins and infections.

She explained that you could dry the leaves and prepare enough feed for the whole week and then add a bit of water to each portion before feeding each day, explaining that this would save time each day. She had also prepared a demonstration of a larvario, which consisted of a container filled with bird excrement that she had collected and added water to. She had prepared it several days before, so that we would find larvae in the mixture, when she stirred it up with a

Figure 5: PG Candelaria adding dried, ground egg shells to bird food mixture
stick. She said this was an important source of protein for the birds, especially the young ones. She also mentioned to the group members that you could grow larvae with kitchen scraps also, but that she generally fed her kitchen scraps directly to the birds, so she preferred to grow the larvae with the excrement.

After the workshop, I went to the houses of three of the participants to interview them about the project. They each welcomed me into their yards, showing me their chicken coops and the *criador*, a small box with a lightbulb in it that they had built with the help of FPP to raise baby chicks. They politely answered my questions even though we struggled to understand each other at a few points, given that Spanish was neither of our first languages. When I asked what autonomy meant to them, none had heard the word before. When I tried to explain what it meant, Doña Dominga said, “Ah, yes, that is what I said. I do not buy chicken, we do not buy eggs, because we have them here” (Dominga, P., Int., 02/2019).

The self-sufficient food production systems proposed in these workshops were simple in theory, but their implementation was complex in this context. For example, in El Refugio, and every other community I visited, participants spoke about the importance of sprouting corn, or *forage verde*, as they called it, to feed the animals essential vitamins, especially during the drought when there was less natural forage for the animals. However, when I asked if anyone had made green forage recently, the answer was no, as there was no corn left over from the harvest, so they were forced to buy corn from the DICONSA, a government run store providing basic commodities at subsidized prices to people living in marginal areas. Due to the drought they had had a smaller harvest than expected. The corn from the store did not sprout. This was either because it was stored for too long so the seeds no longer germinated or it was hybrid corn that had been designed to not germinate. *Forage verde*, only worked with *maize creollio*, native corn varieties, the participants explained. Normally if someone had corn left over from the harvest,
they shared it or made trades with other members of the community, but in several communities I visited, no one had *maize creollo*. In fact, when I returned to El Refugio on a subsequent visit in September, Candelaria’s group was talking about how they didn’t even have any corn left at the DICONSA, to sell, as the recent shipment had sold out so quickly that they had to start reducing the amount each person was allowed to buy.

Don Antonio, a promoter guide in another community, was the only one I heard of, during my time in Calakmul, who had enough corn for the whole year, after implementing the agroecological practices he had learned through this program. It struck me that this was the difference between food security, when the only corn available is from the subsidized local store, and food sovereignty, when the corn you grow yourself is enough. Candelaria told me it was necessary to be creative in times of drought. Because of this, her workshops focused on diversifying animal feed with what was available in the current local conditions.

After interviewing three of her group members, I went to Candelaria’s yard and she showed me the area for her birds and her garden in her 45mX50m plot. She also showed me the bath for the ducks she had made so they wouldn’t dirty their feeding dish and the chicken coop with a roost made of wood poles so their excrement dropped below. The way it was designed, she explained, prevented the birds from walking in their own excrement and spreading disease and also the excrement does not get wet, so it does not stink. She also showed me where she raised the chicks, a small wooden box with a light bulb she leaves on at night so they do not get cold without their mother.

She showed me her garden where she grew ingredients for the *empanadas* that she made with the help of her six children to sell in her community each morning. She also used what she could grow in the garden to feed her family, or she sold the produce, if there was enough, when she needed money for other things. Acknowledging that she is very busy, I asked her what
motivated her to be involved in this program. She explained that the knowledge she had gained through the capacity building process in this program was most valuable to her. 

I keep all the knowledge that I have managed to capture. Everything that they teach me, I feel that is mine, no one can take that from me. All that knowledge, I have managed to learn will be mine forever... We all have obligations, but we must also leave a space to learn, to grasp more knowledge, more than anything else, because the knowledge that you come to impart to me, for example, who is going to need it the most? You or me? Me because I have my animals, yes, what you teach, I'm going to learn because the one that will benefit is me with my animals, not my neighbour, but me....because of this, I feel it's nice to participate (Candelaria, PG Int. 02/19).

She explained that what also motivated her was helping to better her community. Four years ago when FPP started the program with the birds, they held a vaccination camp where they taught several community members how to vaccinate birds. Since she was one of the ones who learned, FPP brought her to teach the women of Mancolona, another small community in Calakmul, how to vaccinate their birds.

This is something beautiful. For me I do not like being selfish. If I have the knowledge and I can share it, I will share it. I think that if you are not willing to share, then the workshops and all the knowledge you gained from FPP is not going to serve you, why? Because you are a selfish person who does not want to share. I think the best is when ...you share what you learned so that others know what you know (Candelaria, PG Int. 02/19).

She told me that before she was a PG, when FPP had started its work in her community, she had volunteered to be a community promoter, a supervisor for the infrastructure building that FPP was contributing to her community.

Well, I told them, I want to be a promoter, they didn't choose me, I chose myself. Then from there we began to work, to work with Fondo, in helping with the dry bathrooms, then the henhouses. Two months after giving birth to my baby, I was in the truck distributing the material, yes [laughter], so I think that's the part that has helped me climb and get to where I am with FPP (Candelaria, PG Int. 02/19).

When I asked her if she felt like a protagonist she laughed and said,

Yes, how should I say, yes, because at least for me, because I didn’t study, with this position I feel like, how do I explain, [pause] maybe if I had studied, I would have
become more of a person than I am. So, I feel like I am a person that, I don’t know, I am very committed, dedicated to this work… (Candelaria, PG Int., 02/19).

**Castilla Brito: Pigs & Biogas**

Driving into Castilla Brito in February, we saw many pigs and sheep roaming about, some looking very thin and not in very good health. When I remarked that there were many pigs for such a small community [~35 families], both Rey and Ezequías said, *Demasiado* meaning, too many. Ezequías said that in general the pigs roamed free during the day to forage, and it caused issues in the community because the pigs got into people’s gardens and the crops in the fields. Rey pointed out an area that was dry, but said when it was full of water the pigs always hung out in there and the water got very dirty and they picked up bacteria and diseases.

In Castilla Brito, I had the privilege of meeting María and Susana and her husband Sebastián. Susana the PG, had worked with pigs since she was young. Her father also had pigs before her. Susana migrated to this area from Salto de Agua in Chiapas and had lived in Castilla Brito for around 40 years. María was also from the same area in Chiapas and had lived in this community for 18 years and had been raising pigs for 17 years.

Both María and Susana participated in an eight-month program with FPP in *autogestión*, which directly translates as self-management, but as it was described to me by Marla the coordinator for the FPP field team, it seemed to mean much more than that. She explained that it was a capacity building process through which they had learned how to identify what resources they could count on and through which they had generated ideas of what they wanted to do as a community.

They learned how to create their own project, how to start, identify necessities, identify resources, giving life to the dream they created of doing a project. They had to choose a project to elaborate and complete a proposal. With their completed proposal they received a seed capital to develop their project, and in the case of Susana and Maria they created a sustainable backyard pig production system with this seed capital. (Marla, Coord. SMR, 09/19).
When I asked Maria about who designed the area for the pigs she explained, “they were our own ideas, they asked us how we wanted the design, and we said, "That's how we want it… floors of cement…so you don't get too much scabies, it's easier to take out the excrement, to wash, to clean” (Maria, P. Int., 02/19).

Marla also explained to me that Susana’s path toward becoming a PG was different than other PGs, since she had had the experience of developing her own project. The other projects such as those with backyard birds, were developed by FPP staff in response to needs expressed by communities in the participatory diagnostic. Rey, the facilitator also told me that both Susana and Maria had travelled to Merida with FPP to participate in an exchange of experience to learn the system of backyard pigs and biogas generation that she now has set up in her backyard.

When we arrived at Maria’s house where the workshop would be held, we gathered on the porch of the house in the shade. There were already three FPP staff and three student volunteers there, who were engaged in doing interviews for an organization-wide evaluation. We had brought lunch for the evaluation team, in the truck, in take-out containers from Xpujil, so we all sat down and ate before the workshop began. Maria and Susana did not join us to eat, but I was offered a bucket to sit on and Maria brought out tamales to share and offered everyone pozol, a fermented corn drink. The tamales were delicious, fresh, spicy and sweeter than I had ever had before. When I asked why they were so sweet, Rey said it was the type of corn used, *maíz criollo*; they never added any sweetener.

When we finished lunch, I asked Ezequías to help me to introduce the topic of the letters of information and consent. He asked permission to enter the house and Maria said, “*pasa*” smiling, waving her hand at us to follow her. We walked through the house to the back door, where Susana, Maria and two other woman from the community that planned to participate in the
workshop were standing chatting on a small landing just outside the door. I explained to them that I wanted to get permission from them to observe the workshops and to interview them and my University wanted them to sign permission forms to make sure I was doing things in a good way. I handed them the letters of information and consent to read. They laughed and joked in Cho’ol, then said, in Spanish, that they couldn’t really read Spanish that well. I explained what was in the letter, especially emphasizing that they could either choose to use their real name or a pseudonym. Maria joked that she would use her real name because maybe she would become famous. The other women giggled. Then she joked that maybe she should use a pseudonym so she could be named Floracita, then she dramatically listed some other flamboyant sounding names and the other woman laughed, suggesting some names of their own. This joking seemed to relax everyone. One of the two women went to get her husband to sign the paperwork, and he also stayed for the workshop, contributing his knowledge. The workshop was led by Susana, the promoter guide responsible for the theme of pigs in this community. The participants were Maria, and three new participants, myself, Rey and Ezequías. I learned that, up until now, Susana had worked as a promoter guide with one participant, Maria, and that this was the first workshop she would be leading. “It's good to start giving more workshops for others who want to join, so they can learn as well” (Maria, P. Int., 02/19).

We were gathered on one side of the table and Susana stood in front of us with three sheets of paper taped to the wall behind her. Rey encouraged one of the new female participants to come join us at the table so she could see better, but she said she was fine sitting where she was, back from the table, behind her husband. The theoretical part of the workshop was on balanced nutrition for pigs, and the practical part of the workshop that followed was planting a fenced area dedicated to growing plants to feed the pigs. Two of the chart papers included notes which she read aloud about balanced pig nutrition. The third was a diagram of the area we would
plant together, with plants needed to balance a pig’s diet. Susana began the workshop by welcoming everyone, and making a special welcome to me and apologizing for her limited Spanish language ability.

She went through the notes on the chart paper explaining what nutrients were needed for pigs, and the diverse sources of these nutrients. She was struggling to read the Spanish text, but several of the participants, mostly Maria, were helping her by quietly reading aloud along with her or saying the next word aloud if she paused. Susana stopped after each sentence she read to give an example in her own words, such as, “for the pigs to grow big they need more protein”, or “when lactation is happening it is important to give eggshells for calcium.” She emphasized that “to be a good pig mama you need protein, energy, minerals, and vitamins” (author field notes, México, 02/19).

I asked Susana and Maria later if the workshop had been in Spanish for my benefit and they laughed, waving their hands, and explained that it had nothing to do with me. I had been worried about this, since I knew that FPP encouraged promoters to give workshops in their mother tongue. They explained that they knew how to speak Cho’ol, but not how to write it, so the theoretical part of the workshops was always in Spanish.

The next chart paper had a list of diverse food sources needed for balanced nutrition and the different types that could be included. These included grains, ground feed, dry forage, and protein powders such as ground bones. They also included local plants and forage verde or sprouted corn. There was a discussion a bit later, that many people contributed to, about how to make powder out of bones for minerals, including how to toast them and add salt to the powder for more minerals.

Susana then reached the third chart paper which was titled, “design of a self-sufficient farm.” She explained that what they would do in the practical part of the workshop was plant a
fenced area dedicated to growing plants to feed the pigs, since they didn’t roam free in the community and had only a small area to forage. She explained the design, which included the biodigester, the pig pen, a living area with a two-burner gas stove for cooking, and the fenced in area they would be planting today. The design included, corn, beans, a local sweet potato, squash, *macal* (local tuber) and yuca. What we actually planted was slightly different and included *ramon* (Mayan nut tree) and *chaya* (Mayan spinach) and other plants that they had on hand. After she had explained the design she asked if there were any questions.

The husband of the new participant suggested that the area could be planted in the traditional style of *La Milpa* with corn, beans and squash planted together rather than separated in rows as it showed in the diagram. He said you could simply plant the seeds in the same hole. He then asked about which plants would give what vitamins and minerals. He wanted more details and specifics and suggested that the area could be planted to provide the diversity of plants needed. Maria explained that when you grow the *forage verde*, the proteins and minerals are released from the grain and can be accessed by the pigs. Susana said that *chaya* is for providing the pigs with vitamins and fibre and egg shells for calcium when pigs are lactating.

The husband of the new participant then asked another question about how you fight parasites. There was silence at first, then Rey asked if Susana or Maria remembered the name of the medication and the recipe for the organic parasite control. Susana named a couple of medicines and so did Maria and they were discussed, but then Maria interjected that it is important to also use organic methods, because the parasites would eventually build up a resistance to the medication since you never killed off all of the parasite population. She explained how to use a mixture made with papaya leaves, arnica leaves, epazote (Mexican tea) and garlic to prevent this problem. She explained in detail how to administer the mixture to the pigs. Rey encouraged both Maria and Susana to contribute, to answer the questions by giving
prompts and reminders about what they had learned, only adding to the discussion when necessary, or when asked directly. He sat at the back, behind the main circle of people at the table.

Everyone seemed relieved to finish the theoretical part of the workshop and start the planting. We had a brief tour of the pig coral and the biodigester, and soon everyone was busy, planting what Susana and Maria had prepared. Everyone helped, with Maria and Susana giving directions, changing constantly between Cho’ol and Spanish, often in the same sentence. Some plants were planted by digging a trench with a machete and others were planted in holes made with a pole. Everyone helped with the planting, taking turns in the shade that was on one side of the fenced in 10mx15m plot.

Rey took the role of an interested learner, asking questions about a tuber he was unfamiliar with. He helped get water from the rain barrel with a bucket to water the plants just planted. Ezequías helped also, but didn’t say anything unless necessary. When one participant asked if you could use the residue from the biodigester as fertilizer for the plants, another participants said yes, and Ezequías spoke up to say yes, but not directly on the plants, but rather in a circle about one metre

Figure 6: PG Susana giving direction to participants of the workshop

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around the outside, so as not to burn the plants. He walked around the hole that had just been filled with tubers to demonstrate where the fertilizer should be added.

One participant suggested that Maria separate the *chaya* into several pieces to plant, so she would have multiple bushes, instead of just one. She took the suggestion gladly and separated into five or six pieces to plant. As I helped Susana dig the hole with a pole to plant a *ramon* tree from a cutting, I marveled at being able to simply stick a piece of a tree into the ground and have it sprout roots and grow in a matter of months. When I returned to visit five months later, there were *chaya* bushes and a small *ramon* tree growing there, despite the drought.

![Figure 7: Maria in her plot five months after the workshop](image)

During the practical part of the workshop, there was a discussion about a tuber that was unfamiliar to Rey. They were planting several in one hole, and when Rey asked why, a participant explained that you wait until you see which ones sprout and then you can transplant them out into their own space. All the participants were contributing by telling Rey ways to plant it, and ways to cook it and eat it. Susana gave Rey and I, four or five tubers each to take with us. I did not have the heart to tell her that I couldn’t take them across the border; instead I regifted them to the person who had helped me to make the initial contact with FPP.

When the workshop was over, I interviewed Maria and then Susana and her husband on the porch of Maria’s house where the first part of the workshop had taken place. Susana’s
husband kept answering the questions for her, or interrupting to explain, so I kept trying to rephrase the question and direct it back to her. There was a lot of difficulty understanding my questions and I had struggles understanding their answers. Susana’s husband had much better Spanish speaking ability than Susana.

Later Rey, told me that at first Susana’s husband Sebastien was not supportive of the idea of Susana being a PG, but after a while he had a complete turn around and now he accompanies her to each meeting and helps her by writing things down for her since she does not have writing skill herself. Susana was also unsure she could take on the role initially. “Well, when they asked me, I answered, ‘I will try.’ I said this because I hardly speak any Spanish, pure Cho’ol, and I don’t know how to write either” (Susana, PG Int., 02/19). Interestingly, Sebastien’s change in mentality came from participating in exchanges of experience.

The husband of Doña Susana, in the beginning, he was convinced that the agrochemicals were the solution... And little by little, the exchanges of experience that we have done, this is a very important element... he participated and in fact even offered himself, volunteered to be the assistant of his wife. Not only did he change his thoughts related to production but also, giving space to his wife to support her equally (Rey, SMR, 06/19).

After the interviews we walked to Susana and Sebastien’s house along a path behind Maria’s house. On the way she pointed to the wooded area on our right, which she said was part of the ejido. This plot was the responsibility of the women of the ejido, but they didn’t plant anything there, they let it go wild to use for wood for cooking. Susana also mentioned on the walk to her house that one of the new participants that day had been reprimanded at the ejido assembly because her pigs had gotten into another community members field and eaten a lot of plants. The ejido leadership had given her three months to pen in her pigs. This is why she was at the workshop, looking for help from FPP, because she didn’t have the resources to do this herself.
Susana and her husband showed me their system for raising pigs and producing biogas. She had a small pig pen with six stalls made of cement and a pvc pipe, cut in half, running along the back of the pens on each side. She explained, to produce biogas, you had to clean the pen of feces every three days, pushing it down into the trough, then washing it down a tube with a bucket of water into the biodigester.

The biodigester looked like a large, long black vinyl bag, half buried in the ground. In the middle of the bag there was a small tube that came out of the top of the biodigester. The tube ran across the yard a short distance and through the window into the house. She explained that after a few hours in the sun, the bubbles started to form in the tank and rose up and went through the tube to the kitchen. She brought me in the house and showed me her two-burner stove in the kitchen. When she first lit it, it had a very large flame. She said that before, she had cooked only with wood that she collected from the forest beside her house, pointing to a large metal box in the corner of the kitchen where she made the fire. She said that cooking with biogas saved her lots of time. Now if she wanted to boil water she could just turn on the stove. I asked if there was any time that she didn’t have gas and she said no, as long as she cleaned the pig pen every three days, there was no shortage of gas.

She also showed me that she had a large fenced area with trees behind her house for letting the pigs forage. The fencing, she said, came from FPP. She told me that her goal was for
everyone in her community to have their pigs fenced in, like hers, which no longer roamed about the village all day causing trouble. She said, if everyone had fencing to keep their pigs in, they would stop creating conflict in the community.

While we waited for the FPP staff to join us, I shared a little bit about myself, mentioning that my family had raised goats when I was growing up and we drank the milk and my mother made cheese. I said “I don’t have animals now, but I do have a garden.” They asked what I grew and I said, “tomatoes, cucumbers, lettuce, carrots.” As we talked, we walked by a fire in a pit they had dug, also in the small yard. The sheet of metal mesh over top of the pit was covered in a thick layer of Jalapeños that were smoking for market. She told me they sold them at the local market in Xpujil. Susana asked, “Do you grow chilis?” I said, “well, I try, but we lack the sun and the heat necessary, with the short growing season and the long winter.” Sebastien asked what people ate in the winter. I said that most people in Canada were very urbanized, and didn’t grow or raise their own food, but instead drove to the town to buy food in the grocery store. Sebastian asked, “how do people live then? What do people do for work.” I said, well, people build houses, or furniture, they are teachers, or cooks, etc.

For many of us, it is hard to believe that an agrarian society still exists. As each person I interviewed told me that the food they cultivated and the animals they grew were for autoconsumo or self-provisioning, I realized that a way of living is also a way of seeing. When returning to Canada after only six weeks, I realized quickly how steeped we are in the tea of modernization, capitalism and colonization. As I thought back to what I told my study participants about how most people live in Canada, how our lifestyles are quite different from that of Campesinos/as, it occurred to me that it might be hard for us in Canada to accept the idea that anyone would want to choose to live this way. Because we are modernized we conceptualize this as a sacrifice, as giving up of conveniences. Many would consider this as moving backwards (author field notes, México, 03/2019).
When Rey and Ezequías arrived, Susana, and her husband wanted to consult them about where to put the fenced in area that would be dedicated to growing trees and bushes, corn, beans and tubers for feeding their pigs, just as they had done in María’s yard during the workshop. They walked through the trees behind the house chatting about how big the area needed to be. Rey and Ezequías also visited the pigs and Rey told me that they had borrowed a large male pig for breeding Susana’s pigs. He pointed to the biggest pig in the pen of small pigs, indicating that this one was the son of the large pig and was the same age as the others. Susana told us that her neighbour had come over and noticed that pig and wanted to buy it, but she said no, as she wanted to see how large it would get. Susana told me with pride about how she had learned to castrate pigs herself in a workshop run by FPP and had castrated all of the baby pigs she had herself.

Above the pig corral there was a board with a laminated sign of a diagram picturing the steps of raising pigs, including when to change them from milk from their mothers to feeding them solid food and at what weight to vaccinate them.

When I asked Rey about why Susana had only one participant in her group, he said they work with each promoter at their own level.

In the beginning, Doña Susana didn't speak that much, and now little by little she's catching up to that fear and she's already facing it… and I think that maybe this comes hand in hand with my motivation. I think to support a woman who starts giving her own workshops, to see that she is speaking, it is very motivating and fills you with the spirit to continue working (Rey, Fac. Int. 03/19).

Figure 9: Susana's baby pigs
He also added that they viewed Susana’s case as a demonstration for the community, both to try out the practices and generate curiosity and further interest in this closed cycle system.

**Ley de Fomento: Gardens**

When we arrived at 9:30am in Ley de Fomento, after an hour and a half drive to meet Mariana, she wasn’t there. We asked a woman that Rey knew where she was and found out that she had left early to go to the *parcela*. Rey saw her nephew and asked him if he could guide us to the field, since he knew she only had a motorcycle and assumed that she had gone to the field to get supplies for the workshop, including what turned out to be large bags of soil and sheep manure. Her nephew agreed to guide us to her *parcela* and jumped in the back of the truck. At least three kilometers from the village we turned down an unmarked road off the highway that went through the *selva* to her *parcela*. She told us on the way back through, that this section of the *ejido*, where the *selva* grew, was for conservation and no-one produces in that part.

The road was full of holes and looked as though it had been washed away at a time when there had been heavy rain. It must have been quite a while ago, as I had been hearing all week about how little rain there had been in the last year, and the previous three years for that matter. We met Mariana on this road, in the back of a truck with seven other people, on her way back to the village. She had left two hours earlier to collect soil and sheep manure from the *parcela*, where her family had their sheep. She explained that she had come in the morning with her husband on the motorcycle and had asked the others for a ride with the heavy feed bags full of manure and soil. She switched into our truck and rode back with us to the community.

The workshop was in the yard of one of the group members where we would be building a raised bed. When we arrived, there were three ladies sitting on plastic chairs. I was introduced to each of them and offered a chair. When I realized there was more work to do before starting the
workshop, I jumped up and offered to help. Mariana had just chopped down a banana tree with a machete and Rey and I carried the trunk over to where we would be making the raised bed, surprised that it was dripping with liquid. The women warned me to be careful that I didn’t get any of the liquid on my clothes from the banana trunk, as it leaves a permanent stain. I said it didn’t much matter, but then I remembered that when you have very little access to water, stains are more serious.

We carried the banana trunk to an area of the yard, fenced off from the ducks and chickens, in which there were already some bushes planted such as chaya, and yucca and a few others I had never heard of. As more women arrived and Rey and Marianna unloaded the bags from the truck, the women present were asking me questions about Canada and what I grew in my garden. I told them I could only grow plants that had a short growing season, or perennials that could survive over the harsh winter. I said the only fruits that grew were berries, apples, plums and pears. They were surprised that I couldn’t grow yucca if I could grow potatoes and wanted to know how cold it got and how much snow. They asked what we ate in the winter and I said, “well in the past we ate what could be conserved in the freezer, dried, smoked or in cans and jars, but now we eat a lot of imported food we buy at the grocery store, from México and California, that travels all the way to us on trucks.”

Mariana started the workshop by welcoming everyone and apologized for not having the workshop sooner. She then told the story of her trip to Bacalar to learn, from a doctor, a technique to keep moisture in the soil of garden beds. I found out later this was a doctor of syntropic agriculture, which is an agricultural practice similar to agroecology that was developed by a Swiss scientist Ernst Gótsch in Brazil. She explained that she was going to pass on to them through this workshop, what she had learned from her experiences there. She said she was not going to talk much, because, as she put it, “practicando aprendemos” we learn through
practicing. Instead of talking about it, we were going to make a raised bed together to show how using a banana tree trunk can keep moisture in a garden bed. “Great,” said Maria A. D., “let’s get moving, doing something”. The first task was to break up the soil, which they did, taking turns with a pickaxe. Surprised, I leaned down and felt the soil, and found it in hard clumps, like dried out mud. Rey explained that when the rain comes, it turns back into mud. He spoke about the importance of adding leaves and dried out animal feces to prevent the soil from hardening as much during the dry periods. He said he would try to schedule a workshop for them on how to make Bokashi, a kind of fermented compost. While we worked on the soil, one woman was using a machete to chop the banana tree into thick pieces.

I was struck by the enthusiasm of this group. They all gathered around, helping, asking questions, adding comments, and making jokes. Maria A. D. said that her garden was full of stones and she didn’t really have much success growing anything. “The best soil,” she said, “is in Tabasco.” The other ladies began making fun of her, asking her why she was pining over the soil in a place she doesn’t live anymore. Someone joked that, “after this workshop you will be saying, the best soil there is, is in Ley de Fomento.” The talking and laughter continued as they worked. Once they loosened the soil, they started to pull out the few weeds that had grown there, but Rey said to leave them, because they

**Figure 10**: Maria A. D. loosening soil with Antonia and Rosa
would provide organic matter to the soil. They pounded in stakes to hold up the boards that would frame the bed and then began laying pieces of the banana trunk in the frame. All of the pieces were added, as well as the leaves, to maximize the organic matter in the soil. The women chatted about how many banana trees they have and how they just let the leaves and branches lie on the grown and dry out when they fall down. Maria A. D. said. “If one doesn’t know, one cannot take advantage.” They hadn’t realized this could be such a valuable resource.

As they lay out the slices, Rey spoke about the ideal thickness to cut the banana tree so that it was thick enough to hold the moisture and thin enough to decompose. I had been surprised they could take down the tree with a machete, but I now saw the consistency of the trunk was like a very juicy celery. A couple of women wondered aloud if the boards would be high enough as the bed looked already very full. Rey explained that as the trunk decomposes it will release water and the soil will slowly lower.

We added the dry sheep manure, spreading it evenly over the whole bed and then the bag of soil. As we added the manure there was a discussion about the fruits and vegetables, they buy in Xpujil that came from central México and how they are irrigated with aguas negras, or sewage.
contaminated water. To this Maria A. D. said, “It is better to eat what you harvest, what you sow.”

When the work was done, Mariana explained that this was a technique specifically designed for planting seeds during the dry season. Everyone seemed genuinely excited to try it. They then began making plans to go around to each other’s yards and help build beds for each family. They agreed it would be faster and easier to do as a group. One woman said she didn’t have any banana trees, but another said she had plenty and could share. Rey said he would see if he could get a set of tools that they could share. He said he didn’t have enough to provide tools for everyone, but if they were going to do it as a group then he could provide a group set for which Mariana would be responsible.

After the workshop, I interviewed three of the participants, one at a time, sitting on plastic chairs under a tree just beyond where some from the group were standing chatting with Rey and Mariana. I found out in the interviews that these women had been a group for several years and had formed when another program had been active in the region called PESA, El Programa Especial Para la Seguridad Alimentaria (Special Food Security Program). I found out from Marla that PESA was a collaboration between SAGARPA (The Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food) and FAO (Food and Agriculture Organization of the United Nations). The women I interviewed said that PESA was a good program, the people were relaxed, they worked well with them, and they had learned a lot about sustainable gardening, such as making organic fertilizers, and how to control pests by planting certain plants. They all agreed when one woman said, “thank God for PESA”, who had given them water collection barrels, seeds, chicken coops, citrus trees to plant in their backyards.

“Unfortunately, PESA left because there were still things we wanted to do” (MR Ley de Fomento, 06/2019). I asked why they left and, Marie Elena explained, “With PESA there was
some trouble, the technician said to the community committee that someone was robbing their things, so they up and left. That was it. So, we lost our luck” (MR Ley de Fomento, Sept 2019).

PESA had operated in many states throughout México, but had just come to an end, replaced by a federal government initiative called Sembrando Vida. Many Campesinos/as in communities in Calakmul had just begun their participation in this new program, when I visited in September 2019.

I had the privilege of interviewing Doña Antonia, who was one of the founders of this community.

We came here in 1982, and we have been here since then, we founded the ejido, we made the first streets, we did everything, because there was no one, only us, well it was a group of 43, two years later they all left, just four of us stayed, four families here, but of those four there is only one remaining ... two, and the children of those who left (Antonia, P. Int. 03/19).

When I asked her what her goals were in this program, she told me that there had been a visit from the municipal president to the ejido assembly wanting to know what the needs of the community were and she had said, “Water, water, water!”.

There is no piped water, they have not provided this, and it has not rained, so there is no water. How can a community grow without water?... look, when we arrived there was water, but there was a year that did not rain at all, not a drop, you cannot imagine how we suffered, the chickens died, the dogs died, we did not bathe… We don't ask for palaces, we want water (Antonia, P. Int. 03/19).

She said that the workshop had given her hope:

Look, now that we see how they are doing that we are not going to suffer as much. We are going to fight and work to make this garden bed as it is, and work to make compost, it has to give results (Antonia, P. Int. 03/2019).

In my conversation with Mariana, the promoter guide she told me that she had just started as a promoter guide four months prior with FPP, but that she had worked in gardens for more than ten years, including her time as part of the program with PESA. When I asked what motivated her to get involved in this program she said:
Yeah, well, what are we going to do? Sometimes we do not have money, when we do not have a crop to sell….Here, flat out, we have no resources, we have no salary, or government cheque, we are Campesinos working in the fields. What we do in the struggle, we the Campesinos, we raise chickens, raise pigs, plant corn, chihua [squash] whether it gives a harvest, or it doesn’t give... what we do here is raise chickens, raise pigs to support the children. If we look for work outside, who is going to take care of our children? And that is why we want this [FPP Program]... as my compañer as say, they have the desire to put in the effort to make things happen, but we do not have enough water, not even a rotoplas or tambo [rain water collection systems] or... tools for the garden” (Mariana, PG Int. 03/19).

When I asked her, what motivated her to take on the role of PG she said:

Yeah, it motivates me because what I do not know, I'm learning from them [FPP staff]. What I do not know, I'm learning. Maybe I don’t have anything. As you heard my compañeras say, the soil is not good, the soil is not good, the soil does not grow anything, right? But there are moments when you learn, just as we have just been taught, that it is possible. That is what I am learning there, that is my motivation (Mariana, PG Int. 03/19).

At first, Mariana was worried about being able to fulfill the role of PG. “In the beginning when I started, I thought, what am I going to say to the other women? What value do I have to give? And what are they going to say to me” (Mariana, PG Int. 03/19). She explained that she was pleased when the group members accepted her and attended when she called a meeting.

When I returned after five months, they told me that the idea that had developed spontaneously out of the workshop experience to build the beds in each other’s yards as a group was carried out in some cases, but not for everyone. They had gone to help Doña Antonia since she is the oldest and in the most need of help. Maria said that she had implemented the technique in two garden beds and had a successful harvest and was planning to sow seeds again, “for me it worked, I mean I still had to water a little bit to keep it going, but yes I have had a harvest” (Maria A. D., P., MR, Ley de Fomento, 09/19). Others said that they had implemented the technique at home but hadn’t sewn seed yet because the rains hadn’t come.

About a month ago, the technician came by to see how it was going and we dug down underneath and you wouldn’t believe the ground was moist, and it was in the middle of this drought. Yes, it works, yes it keeps the moisture. (Marie Elena, P., MR Ley de Fomento, 09/19).
Others echoed Marie Elena’s excitement to plant now that it was finally raining, and the rainwater collection barrels were finally full. At this point, I understood that this technique was enough to help during the drought, but since this drought had gone on so long, many didn’t have water reserves to water their seedlings and it was not enough on its own to keep the plants alive.

La Victoria: School Gardens

In La Victoria, I had the privilege of observing a workshop for primary school pupils given by Samuel, the PG. When I visited for the first time, he had been working with ten students aged nine to 13 and their teacher for six months on a school garden project. Samuel told me that he was very excited to be working also with four families in his community on gardens because he liked the work, and he liked to plant. In his garden he grew tomatoes, onions, cilantro, chili, and radishes, because he liked to make salsa. He didn't have to go and buy the ingredients because he had them at home. Samuel told me that often in his community, if people were looking for something to cook with, they would walk around the community in search of cilantro, for example, and buy it from their neighbours. Samuel explained that there were about 50 families in the community, but only four that had gardens, so people often came to buy food from them.

Visiting one of the families that is part of Samuel’s group, I learned about how the husband had dug channels between the garden beds so that when the heavy rain came, the water would be guided down from the street and all through the garden beds. Samuel assured me that he hadn’t told him to do that, it was the very creative idea of the Señor of the family. What Samuel did teach him was how important it was to build pathways so you can water and harvest what you plant without stepping in the beds. As we walked in the village, we met this man on the road and he told us that he enjoyed the program and working with Samuel, the advice and support he gave.
had been useful. He told us about his plans to build further channels and extend his garden so he could grow more tomatoes and direct more rainwater to his plants.

In the yards of both of the families we visited, they expressed their excitement that the rains had finally come. On the first day it rained, they had planted the seeds that Samuel had given them, and eight days later small seedlings of radish, cilantro and beets were growing. Both families had also planted oregano and mint, as Samuel had told them that they are good at reducing the effects of the insect plagues, because of their strong smell and taste. While we were there, Samuel recommended to one family to split the large oregano plant they had and plant smaller plants all around the garden. His demeanor was polite, jovial and familial, chatting with the families as he crouched down to check the soil and the seedlings.

Samuel said that learning motivates him, “because you never stop learning in this life.” He said he felt fortunate because the teachers at the primary school here were very committed and interested in learning together with the children, asking questions in the workshop and encouraging the children to take responsibility for the school gardens. Samuel had not had the same challenges expressed by some of the other PGs working in schools in other communities, such as difficulty coordinating with teachers, and convincing parents that what they were teaching was worthwhile.

Armando, the elementary school teacher partnering on the project, explained to me that the natural sciences are taught on a project basis to teach the parts of plants and how they germinate. His motivation to involve his students in the school garden project came from the theme in the curriculum of "The Good Eating Plate" which covers how to eat well with legumes, meat, vegetables and fruits. He combined this with natural science to teach how to grow food and how seeds germinate. When Samuel approached him, he thought it was a good idea because it would be a good way to teach this but also:
to form a culture that not only do we grow food here at school, but that at home you can grow your little piece of cilantro for consumption, as much as you want... so that they learn how easily they can grow it (Armando, T., Int., 02/19).

Armando told me that there used to be a lot more food produced in schools and homes in México and that he had noticed in his lifetime, and especially in his work as a teacher in rural communities across Southern México, that a lot has been lost.

The school group had already had a successful harvest of cilantro and lettuce. They enjoyed the lettuce together at school, bringing chili and lime from home to eat with it. They also brought a bag of lettuce to Samuel's house for him to taste. The cilantro was sold by the children to their families and neighbours to raise money to buy a cake or a piñata for the children's day party. Samuel and Armando told me that an important part of this project was that the garden belonged to the students. They built the beds with Samuel, planted the seeds, and were responsible for weeding and watering the garden every morning and afternoon, as well as, harvesting and selling the crop. Each of the students modified a two-litre soft drink bottle to collect and water the beds with water from the local pond. They made small holes in the bottle lids to make sure the water did not come out too strongly for the seedlings. They had already seen that their efforts had produced food and also some of the money needed for their party. Samuel said:

They are motivated to learn, and, they also focus on their party ‘let’s water the seedlings, let’s plant, because the more we plant, the more crop there is, and the more sale, and the more money’, that is how they talk (Samuel, PG Int., 02/19).

When I arrived at their school, the students were curious and bright-eyed, asking me where I was from. When we walked out to see the garden all the students gathered around, immediately picking out the weeds around the seedlings of cilantro. When I asked the teacher, what motivated the students in this project he answered:
Well, the motivation is that we have something... it gives us something to do, we even forget the problems we have, we even forget the frictions, the children themselves take it as a cooperative project, they water in pairs, you see them sitting down there, it is cool in the garden there is shade, you see them sitting down talking and they sometimes even ask my permission. Teacher, can I go sit at the garden, and they go, they are sitting talking (Armando, T., Int., 02/19).

He explained that through this project they were also building self-sufficiency as well as changing the way they understand their relationship to the earth.

It is a motivation that gives them, that they see that they were able to sell, they see that they can get things themselves, without me as a teacher pointing them out. They did it themselves, ‘Teacher, they [community members] come to buy cilantro’ they tell me. They [students] cut it, measure it, the quantity, they tie it up, they set the price and they were the ones who make the sale...Yes, they already have changed their mind, they already see in a different way, that the earth is not only to be taken... but it helps them in many situations, like this child, for example, Florentino, they [the plants in his garden] are doing well, he came to bring us some tomatoes that he produced, some small tomatoes. They [the students] feel that the earth does produce, and they take care of it. (Armando, T., Int., 02/19).

He said this was very important in this community because:

Each community has a different culture, but in the time I have shared here, I know that here they are children who are accustomed to agriculture. And they feel a great motivation that, yes, they can do it if they want to do it. That gives us a lot of happiness because when they grow up here, they do not have the tendency to go to school and become professionals. Here they finish their studies with high school, they get married and end up in the village. They already have the idea that when they grow up, yes, they can find a source of work for themselves (Armando, T., Int., 02/19).

In the second sowing of seeds they were less successful than the first and not many of the cilantro seeds germinated. “When they [seedlings] didn’t come up this time the students were disappointed. They always ask me why they didn’t come up, and when we are going to replant” (Samuel, PG Int., 02/19). Samuel and Armando said that the bad germination could have been the quality of the seeds. They talked about the process of saving seeds, explaining that the quality of the seed you purchase depends on how the seeds were dried. They also spoke about a way to soak the seeds in water so that they germinate faster. They speculated on the factors that could have affected germination, such as the birds that eat the seeds and a local dog that had dug a hole in the
The first sowing comes out beautiful, grows beautiful, and here the second, it does not want to. The first plant already absorbed the nutrients, one needs to return to nourish the soil...and if you do, you are going to see changes in the plants (Samuel, PG Int., 02/19).

The entire school participated in the workshop, even the younger group, totaling about 35 students. The students were very attentive and ready to participate in the making of Bokashi. The workshop took place behind one of the two school buildings, where Samuel taped up four large chart papers. Samuel began the workshop in an animated and welcoming voice. It was obvious that they respected him and he respected them. Samuel divided the workshop into three parts, first reviewing what they had previously learned with the chart paper turned around. The children were all quiet and listening. He told me later that they were more attentive than usual, presumably because of my presence as a visitor. A few of the older ones who were responsible for the garden, answered most of the questions. He then turned over the first chart paper to reveal a diagram of three garden beds with cilantro, radish, and lettuce, including details of how deep and how far apart to plant what type of seeds and how long until each seed would need to be ready to harvest.

He then moved to the fourth chart paper entitled “El agua se planta”, water is planted, there was a drawing of six different trees including banana, avocado, mango, moringa, and chaya. Samuel reminded the group of the trees they had planted in the schoolyard. When they are big enough, they can shade the garden beds and their fallen leaves can be mixed in the soil to keep in the moisture, and of course the fruit can be eaten by the children at school. When I asked the
children how long it would be until they gave fruit, one of the older girls answered that each tree has its own time.

Before starting to make the Bokashi, Samuel reviewed different types of compost with the students and explained their purpose. He read from the chart paper pausing to explain any words he thought the children would not know. With great humility, he said he didn’t know what the word anaerobic meant, and asked Rey to explain. Like compost, Bokashi has many ingredients including soil, animal excrement, leaves from the forest floor, and ashes. These ingredients had been collected by Samuel and Rey and brought in bags in the back of the FPP truck. What makes Bokashi special is the fermentation agent that is poured over each layer. As the students watched closely, Rey and Samuel mixed molasses and yeast with their hands in a bucket of water that would be poured over each layer. Samuel used the instructions in one of the chart papers to guide us through the process of making the Bokashi, asking the children what ingredient should be added next to keep their attention sharp. Since it was a repetitive process, in the end the children knew all the ingredients in each layer and the order in which they were to be added. As the process repeated itself, the children began to help by spreading the layers after they were poured on from the bags. One child commented that it looked like a volcano. Every time the

Figure 12: Rey (facilitator) mixing yeast and molasses mixture
yeast/molasses mixture was added, the children said it smelled sweet. They also laughed that the sheep manure looked like beans, “sheep beans” they said laughing.

Samuel was asking the children questions throughout about what the different layers were made of, and where you could get the material from. The teachers asked what alternatives there were to some layers that they might not have access to directly in the community, and where people might access molasses and yeast. Rey replied with appropriate alternatives and locations and prices for the molasses and yeast. I was surprised at the low price of the molasses, so Rey explained that it was a waste product of the production of sugar and was very common and inexpensive. He also said that if families kept bees, they could also use watered down honey or any other form of sugar to feed the yeast.

The workshop was paused part way through for the children to go home for lunch. When they returned to the school they gathered around us where we sat at the edge of the garden beds under the shade cloth. I asked some of them what they would like to plant, next time. They suggested radishes, green onions, and carrots. One girl said she loves carrots. She even eats them raw. After all the bags were empty, many of the boys helped Samuel mix the Bokashi with shovels. He paused to show them the

Figure 13: Cross-section of Bokashi
cross-section of the layers they had created.

One boy commented that it looked like a cake. I added, laughing, “Ha, manure cake, with sheep beans.” They mixed in one direction and then the other, with Samuel demonstrating the technique. When they finished, Rey picked up a handful of the mixture and squeezed it together and invited the kids to do the same. He explained that when you squeeze it and it stays together in a ball it has a good moisture content, if it doesn’t you have to add more water for the fermentation process. Samuel explained that he would return to the school each day to help them mix the Bokashi and test the temperature inside the pile, explaining that the heat means that the Bokashi is working, that the fermentation process is working to turn all the ingredients into a rich soil for their garden. Samuel told us later that when they were testing the heat in the middle of the pile with a machete to see if it was fermenting, one of the children, surprised by the heat the Bokashi had created, joked that they should put the tortillas in there to keep them warm.

When I returned to the school after five months, they had added the Bokashi to their garden beds and since the rains had just started, they had recently seeded cilantro and beets. The children quickly and nimbly went to work pulling out all the small seedlings that were not cilantro or beets.

When I asked why they had chosen those seeds to plant, Samuel said they were what was given by FPP, reminding me again of how having so few economic resources reduces choice. The
Bokashi that was left over had been stored in bags in the corner of the teachers quarters for future applications. Nothing was wasted, they told me.

During my first visit to Calakmul, I noticed that all the male PGs had chosen to work with youth or children in schools, while the women PGs had chosen to work with other women in their communities. I wondered what influenced them to make the choices they did. When I asked Samuel about this during my return visit he said:

because here the adults don’t work, if I make a meeting with the teacher and invite the parents to help me break up the soil or put mesh on, for example, I don’t know, here the parents are very sour, here they don't want to work, I bore them, or maybe they want someone else to do it, or they don't have time (Samuel, PG Int., 02/19).

He said he has had challenges with some adults in the community, but not with the parents of those who are working on the garden with him, because he asked their permission before they started the garden project to avoid problems later.

At a PG meeting, I heard the other male promoter guides speak about the challenges they faced working with youth, including coordinating projects with teachers, capturing students' attention, and most importantly, convincing parents that this was valuable knowledge that should be taught in schools. When I wondered why there would be push back, Rey explained that it was because there was a culture of using agrochemicals in the parcelas, so some parents push back, asking why children should work to learn a different way.

Despite this, the PGs agreed that all their effort had been worth it because there had been several successes, many harvests and at least two children had already started their own home garden. They also spoke of the importance of teaching the youth, giving them the experience and tools to grow their own food for their future families. Their work in the schools was not only for the purpose of teaching the children how to grow gardens at home, but it was seen as important
for transmitting the basic knowledge and skills of sustainable agriculture to the next generation, so that they could continue as Campesinos/as if they so wished.

Walking through the village with Samuel five months after the workshop, I asked him how the children’s day celebration went. He said it went well, and that they had a piñata and he had cooked a lot of mole in preparation for the party, but he was disappointed that no one came. I remembered that he had invited all the PGs and FPP staff during the year end presentations. I was surprised that none of the staff had attended because until now, all the people I spoke to said that the FPP staff were bien cumplidos, meaning that they were reliable, they did the things they said they were going to do. Samuel said he understood because he knows how sometimes things happen and you have to change plans, but he said that the children had a much harder time with this. He said the students were disappointed that FPP didn’t come since they had promised to contribute a cake to the celebration. When I told Rey about the children’s disappointment when we returned to the office, he was surprised and said that he had ordered the cake and one of their staff had been responsible for delivering it. I said jokingly, “I am not sure what happened, maybe she ate it on the way, but the children are still waiting for their cake.” I explained that Samuel said the students now have a lesser opinion of FPP. Rey seemed to recognize the gravity of this and said he would sort out what happened. It struck me that the trust they had spent much time building was so easily broken.

Marla told me that these communities were used to having programs or organizations come and give support and then just leave, sometimes even with projects not completed. For example, she told the story of PESA, the federal government program that was operating in this region running food security projects. She explained that since the federal government didn’t have the capacity to do the work on the ground, they subcontracted organizations to carry out the projects in various regions around the country. She said it was common that:
an agency receives the resource from the government, implements, the resource ends and goes. There is no follow-up, there has been no continuity; there have even been cases where the execution has not even finished, they have left things in the middle. And then the agency runs out of money and that's it, that's it, that's it (Marla, F. Int., 09/19).

She explained that this was why they try to set up ongoing programs in communities and why PGs were such an important link in maintaining relationships with communities, especially when there were times when FPP had no funds to support activities.

Yes, there is a pause in the funding right now…but the program is still active, the work continues, they are still visiting families, they are still following-up with families. Now is the very moment in which to see the commitment of the PG to do this work. Right now we are looking for seed capital so they can develop further proposals with their groups. Each of the groups received certain infrastructure, material from us. The idea is now, that the participants continue to develop and maybe in the future one of those participants can also become a PG…Especially now, in a time when the program doesn’t have any active funding for activities, it is hoped that PGs continue their work in communities with their groups (Marla, Coord. SMR, 09/19).

Summary

In this section I have described the program in this case study and given rich description of how this program manifested in each site. The following chapter discusses themes that emerged from the data.
Chapter 5: Case Themes

This chapter discusses the themes of the case using quotes from interviews, member reflection sessions and/or field observation notes to illustrate each theme. Figure 15 outlines the six themes that emerged from the data and the codes that were grouped together to create each theme.

Four of these six themes will be discussed in this chapter, with ‘paternalism’ and ‘creating a culture of participation’ being discussed together as opposing forces. The theme of Socio-cultural/political and geographical conditions was already discussed in the context of the site descriptions in the previous chapter. The themes will be discussed in the following order:

1. Working toward self-sufficient communities,
2. Change in mentality toward agroecology,
3. A focus on relationship building,
4. Motivation to Participate:
   - Struggle against suffering/need for support
   - Infrastructure
   - Access to Expert Knowledge
   - Intergenerational knowledge transfer
   - Convinencio
   - Learning as motivation
   - Learning as success
4. Inclusivity
   - Commitment
   - Continuity
   - Program inscription
   - Participant responsibilities
   - Knowledge exchange between peers
   - PG Selection
   - Community technician
   - Staff capacity building
   - Staff Work ethic
   - Staff motivation
   - Sister Organizations
   - Group building dynamics

Figure 15: Case themes with associated codes
4. Cultivating a culture of participation vs. paternalism.

Themes one and two are also two goals of FPP in their community work in Calakmul. They are working with communities toward (a) self-sufficiency and (b) changing Campesinos/as mentality toward agroecological food production practices. These two goals are interrelated since FPP has found that a successful transition toward using agroecological practices tends to increase production, which in turn increases the potential for self-sufficiency. In this sense, facilitating transition to agroecology is one step toward greater self-sufficiency. These two themes contribute to answering the main research question, as well as the second and third sub-questions.

First, then, I consider how the culture created by CaC pedagogy in practice promotes the development of peasant protagonism among Campesinos/as. I also examine what pedagogical aspects of CaC influence the adoption of agroecology practices and, finally, what social, cultural and political factors motivate peasants to change food production practices toward agroecology.

The third and fourth themes that will follow in the discussion emerged strongly from the data as ways FPP works toward achieving the goals just discussed. These two themes are: (a) a focus on building relationships and (b) cultivating a culture of participation. It became clear that the organization’s efforts to create a culture of participation were met with daily challenges created by a hegemony of paternalism. As such, these two themes will be discussed together as oppositional forces. These themes both contribute to answering the main research question of how the culture created by CaC pedagogy promotes the development of peasant protagonism, as well as what sociocultural conditions enable/hinder co-participation in CaC?

The role of promoter guides in building and maintaining CaC learning networks came through in the data as particularly important, especially in the building and continuity of relationships in communities. Since the basics of the PGs’ role was discussed in the previous
chapter and there are aspects of the PGs’ role that are relevant to all themes, the role of a PG will be discussed throughout. What motivates Campesinos/as to share these practices with others by becoming promoters will be discussed under the theme 4) creating a culture of participation, which includes PG motivations.

**Theme 1: Working Toward Self-Sufficient Communities**

Community self-sufficiency was explicitly stated as a goal of FPP as an organization (FPP Website, 2019), and it also emerged strongly as a theme in the data collected. For example, when explaining why she thought PFF decided to look for PGs in each community PG Candelaria said:

> they [FPP] had already given us chicken coops, they had already done bird vaccination camps, they already had done many things to help us care for the birds and everything, but for Fondo [FPP], this was not enough, so I think this is where the idea originated to form promoter guides (Candelaria, PG Int., 02/19).

The phrase, “for Fondo this was not enough,” is a recognition that FPP goals go beyond simply providing infrastructure and training. This quote from Candelaria also highlights the role of PGs in facilitating community self-sufficiency. FPP worked toward building self-sufficiency through promoting sustainable food production practices that helped participants save money, generate income and provide food security through self-provisioning, in other words, food sovereignty. They also built self-sufficiency by pairing infrastructure with capacity building, creating organized groups and through supporting PG personal development.

**Saving money, generating income and building food sovereignty.** In a real sense, self-sufficiency must rest on improvement of material realities leading to the freedom to choose, rather than being dependent on whatever form of assistance is available. Participants and promoters spoke often of the benefits of participating in this program as being related to saving money, generating income and food security. With regards to increasing food security through
self-provisioning (food sovereignty), Mariela spoke about an increase in numbers of backyard birds as important:

Before, when we didn't have many animals, we suffered a little because we didn’t have enough to eat... but now, because there are birds, if there are times when there is nothing to eat, we can kill a chicken or two... there are eight of us, so one chicken for each meal...and yes, it helps us pass through the hard times. (Mariela, P., Int., 02/19).

The sustainable food production practices that were promoted in this program generated surplus in production for many families, which they said saved them money on food they might normally have to buy. For example, produce from gardens generated small amounts of income for households through selling surplus to neighbours. “It helps me a lot because it serves for my own consumption, also to obtain a few resources…for example, when I have no money for food, I come here and harvest from the garden, go and sell it” (Candelaria, PG., Int., 02/19). This example shows that women may choose to use production for self-provisioning or to generate income needed to buy food, and both of these serve as strategies for increasing food security. The increases in food sovereignty reproduced the Campesino/a lifestyle, which is in itself inherently self-sufficient in philosophy, if not in practice (van der Ploeg, 2013).

The use of the practices promoted in this program also translated into savings on food production inputs. Candelaria explained that, “instead of buying commercial feed, you have the capacity to make your sprouted corn, to grow your larvae, … you can grow your own chicken feed without having to buy it” (Candelaria, PG., Int., 02/19). In many cases, the practices promoted also translated into generation of household income to help Campesinas/os with other expenses. For example, Juana, one of Candelaria’s group members said that she was able to pay her debt for her daughter’s school fees because she had raised enough hens to sell a few of them.

**Pairing infrastructure with capacity building.** It is important for readers to conceptualize the severity of resource scarcity in communities in Calakmul. Basic infrastructure
such as chicken coops, fencing for animals and rain-water collection systems were provided by FPP as a starting point. This fostered an environment necessary for the growth of self-sufficiency (FPP, Website 2019). Pairing infrastructure support with capacity building and knowledge sharing gave Campesinos/as the tools, and knowledge to move toward self-sufficiency. Infrastructure without capacity building can lead to desaprovecho, wasted opportunities or misuse, and capacity building without the means to obtain infrastructure is limited in its ability to promote self-sufficiency. Rey explained that this pairing is so vital because in many rural development programs in this region, there is a lack of training for the infrastructure provided to people, leading to its disuse or misuse. An example he gave was when communities were given biodigestors to be used in toilets, but were not provided with training in the procedures and advantages of their use, and so people used them instead as rainwater collection barrels. This could also be interpreted as a mismatch between community needs and program objectives, considering that rain water collection is a top priority for most families in Calakmul.

Capacity building was a key part of building self-sufficiency in communities in Calakmul. PG Candelaria made the link from capacity building to self-sufficiency with this example:

> They taught us how to build our own feeders and water dispensers. So now the question is, why do they need to give them to us if we can make them ourselves, using what we have here in our yards? (Candelaria, PG Int., 02/19).

This illustrates an attitude of optimism toward self-sufficiency created by capacity building workshops given by FPP. This quote also provides an example of how capacity building can foster the confidence needed for building agentic resources (Bandura, 2006) which are necessary for reclaiming proxy agency from outside actors (Bandura, 2001).

**PG Personal Development.** Promoter guides, women in particular, have experienced significant personal development and have grown to see themselves as protagonists in their communities. Rey explained that, in general, local governance culture has been dominated by
men, limiting opportunities for females to build their capacity in communication and decision making:

Here in Calakmul…it is usually the men who make the decisions, so the women hardly attend the meetings, and this is a problem because this also limits opportunities for their capacity building, it limits their decision making and this is very serious for the organization of the community (Rey, Fac. Int., 03/19).

Ezequías, a community technician, explained that “some of the [female] promoter guides, they didn’t even leave their houses into the street, let alone standing up in a meeting to present…” (Ezequías, CT Int., 02/19). When explaining the significance of the personal development experienced by female PGs, Ezequías offered one promoter guide as an example: “Now she can speak in public, when she started, she bent her head and did not look and with the passage of months, she already began to lose her fear, began to talk and began to explain better and everything” (Ezequías, CT Int., 02/19). This significant personal development was also evident to the PGs themselves:

I was surprised, when we were at the closing of the year meeting with all the promoters in December. We went around and each one [PG] said their report and everyone was talking, giving opinions, advice… listening to myself and listening to my compañeras, I was left thinking, ‘Listen to how much we have learned, we have advanced a lot’ (Candelaria, PG Int., 02/19).

Not only did PGs become guides and knowledge keepers in each community, they expressed an expansion of their ideas of their own potential. Initially, the women in particular, expressed a hesitance in taking on the PG role, unsure if they were capable, or what value they could bring, but eventually, changed the way they thought about themselves through their development as PGs. As PG Marcela described it:

Well, being a promoter wasn’t... how do I explain it? I didn’t have it in mind… But now, I have caught wind of the idea that not everyone is a promoter, not everyone says, I’m going to go to trainings to explain to my compañeras how it’s done. Now I feel like the shirt fits. It fills you with joy, to know that you can do it and you can help more people (Marcela, PG Int., 02/19).
When I asked what was responsible for this personal development among female promoter guides, staff explained that it was a combination of capacity building in agroecological practices, support from their spouses, as well as a process of accompaniment and gradual transfer of responsibility that FPP staff engaged in with promoter guides. Speaking of the personal development she experienced through participating in capacity building workshops, PG Marcela explained:

> It has served us well, maybe to lose our fear, to be able to pass this challenge, because there are people who are embarrassed to speak, at least in front of groups, and through this [capacity building] it has lead us to have more confidence, to trust ourselves more, to be able to talk more, to be able to develop more and I feel, for me, this is something very valuable (Marcela, PG., Int. 02/19).

Rey also highlighted the importance of capacity building in agroecological techniques, adding:

> Once they begin to build their capacity, they gain more confidence; and once they gain more confidence, they begin to express their opinions, and the man says, ‘ah well, I see that my wife is right,’ then that is where they gain the courage to face groups, to face the community to put forward their ideas (Rey, Fac. Int., 03/19).

Once PGs saw themselves as protagonists, they had the potential to influence cultural gender roles around decision making and governance in their communities. This quote also highlights the key role of support of a spouse in the personal development and success of female promoter guides. Marla explained that husbands of promoter guides provided support for their wives in the form of accompaniment to events and meetings, writing notes, and translation for presentations. This was critical to their participation since many women promoter guides were not fluent in Spanish. She also explained that this was a gradual transition, with spouses “joining the circle slowly over time, to help their spouses” (Marla, Coord., SMR, 09/19).

In becoming a promoter guide, both staff and PGs spoke of a process of accompaniment and a gradual transfer of responsibility. Ezequías explained:

> With the process that we offered them, we accompanied them, for example, we accompanied them in their workshops, we supported them. But, there was a stage where
we supported them even more than now, we said to them, ‘I will give the first workshop, for example on, let’s say, reproductive management for pigs and you will visualize how I am giving the workshop and after, in the second workshop, you will be giving it, but I will be present and if there are doubts, I will support you.’ So, this is how we accompanied all the promoter guides, and so this is how. It was as if they were performing and unwrapping a little more, they were gaining confidence (Ezequías, CT Int., 02/19).

This quote highlights the fact that PG capacity building and support of personal development was a significant part of the work being done by FPP in creating CaC learning networks. FPP was not only facilitating CaC pedagogy using existing community relationships, they were also actively fostering leadership in communities and linking existing networks in order to facilitate the implementation of CaC pedagogy. For example, in building networks, I was told by Marla that they look for existing groups and often pair with sister organizations in the region who do similar work in order to organize exchanges of experience.

Part of the process of accompaniment and gradual transfer of responsibility that staff engaged in with PGs involves participatory planning and evaluation throughout their working relationship. PGs met one-on-one with either CTs or facilitators to engage in planning for each semester including scheduling workshops in communities. Planning and evaluation were participatory both with individual PGs, and also with the PG group during monthly PG meetings where the group discussed issues and successes and planned upcoming events. This point became clear to me on the last day of my first visit to Calakmul (March, 2019), when I asked Rey when might be a good time to return, if he had any workshops or other activities planned for the coming months. He said that FPP always had plans, in general, to continue with activities in this program, but all the dates and the details were decided with promoters, so he couldn’t tell me when might be a good time to return for a visit. This principle of participatory planning was important to the process of gradual transfer of responsibility toward self-sufficiency.
Rey explained that each PG was supported at their own level and there were PGs who were already planning and carrying out activities and workshops in their communities without the support of PFF staff, and there were others who still needed more support. Rey explained how a gradual transfer of responsibility was important in how the promoter guide was seen by their group and their community. He observed:

When we feel that the person is on the way to what he/she wants to do, when we go to their workshop, we only give our opinion if we consider it prudent. If not, we let them develop, so that people see that they are the promoter anyway and have the same knowledge, and they don't have to wait for the outsider to come and tell me how to do things (Rey, Fac. Int., 03/19).

This quote demonstrates that in the minds of FPP staff, good facilitation involved stepping back to allow promoter guides to lead workshops, signaling to participants that PGs were the knowledge holders and should be respected. This quote also indicates that FPP staff viewed communities as having the capacity to be self-sufficient. This promoted the idea that communities have the resources, knowledge and power to improve their own lives without relying on external support. This reveals that their work was not only about supporting capacity building and human development, but also in expanding the view of what was possible in communities.

The fact that PGs considered themselves to be protagonists in their communities was important since they would play an important role in replicating learning and implementation of agroecology practices in communities. They were to foster what Rosset, et al. (2011) would call “a self-catalyzing dynamic”. In order to understand their role more deeply, I asked PGs what they would do after this program, or in the case that FPP had to withdraw their support for some reason. In this hypothetical case, would they continue in their role as PGs? Each PG I interviewed responded that they would continue to use what they considered as the valuable knowledge they had gained by implementing the practices, and also to share this knowledge with their communities, including acting as a guide if their neighbour had, for example, a sick chicken.
During a PG meeting I attended, Samuel said, during his presentation that he really enjoyed being a PG and he thought that the shirt fit, and if for some reason the program ended and they had to take the shirt away, he would make himself another one. Everyone laughed, but the point was made that PGs have taken on the role as their identity. Marla responded that she was very proud of what all the PGs had accomplished and reassured everyone that this was just the beginning of their work together. There was a sense of relief in the room when she said this. This may have been the recognition among many that there was still a long way to go. When I interviewed some PGs, they said that they could do much of the PG work on their own but insisted, however, that they were still in need of support from FPP to develop further. Susana for example, said that there was still a lot of work to be done since they had only been working for one year. Candelaria said that she would miss the monthly meetings with other PGs, as she considered them as an important support network. This is an indication that FPP was still working toward building community level self-sufficiency in many of these communities.

**Formation of self-managing groups.** The formation or continuation of participant groups in each community played a key role in fostering community capacity for self-sufficiency. With the PG acting as the leader and guide, these groups were networks for communication, building shared experiences, knowledge sharing and mutual support. By organizing communities into groups that supported each other, they could grow and learn together and exercise collective agency (Bandura, 2006). Through participation in these knowledge sharing groups, members built capacity in both agroecological food production techniques as well as in communication. The group members I interviewed reported feeling a sense of belonging and responsibility to their group and felt comfortable expressing concerns and sharing knowledge or ideas with the group. This is a significant accomplishment considering that group formation and management were challenges expressed by FPP staff and PGs.
Once a group was well established, FPP’s goal for them was to be self-managing, creating projects independently and making proposals to FPP for support of their goals. Marla explained:

We [FPP] are applying now, for another source of funding for groups, to continue. If we get this funding, the idea is for these groups to enter in a phase of self-management, self-governing. The idea is for PG to elaborate projects that are more informed by their group, they propose projects that they create with their groups based on the needs and ideas of the group. I think that at this phase… groups enter into processes of self-management or self-governing to achieve their goals (Marla, Coord., SMR, 09/19).

FPP was working with several groups who were already at this stage of development and were encouraged by their progress toward self-sufficiency. As Rey explained:

The idea is for them to become cohesive communities that do not depend on organizations. For example, something I liked a lot was PG Abigail, recently, she has accomplished that the families in her group cooperate to buy vaccines for their birds. This is a success because no one wants to invest. So, we have to continue supporting her and her group so they keep going and they start to say, ‘we don’t want to depend on an organization that buys us the medications’, to arrive at this, it takes a lot, so the idea is to keep supporting them (Rey, Fac Int., 03/19).

FPP planned to encourage these groups to move closer to self-sufficiency by granting their group proposals for support.

In the case of PG Samuel, who worked with a group of children on a school garden project, he considered it their project. Their teacher explained that one of the biggest benefits of this project was that he witnessed the children building capacity for self-sufficiency through working independently as a group, which in turn motivated them to continue. He noted:

It is a motivation that it gives them. They see that they were able to sell. They see that they can get things themselves, without me as a teacher pointing them out. They did it themselves, ‘Master, they come to buy cilantro’ they tell me. They [students] cut it [cilantro], measure it, the quantity, they tie it up, they set the price and they were the ones who make the sale.” (Armando, T. Int., 02/19).

In moving toward community self-sufficiency FPP promoted sustainable food production practices which built food security, food sovereignty, saved families money and generated income; they paired infrastructure with capacity building to increase potential for developing self-
sufficiency; they supported the development of PGs into protagonists; they worked toward the formation of self-managing groups.

**Theme 2: Change in Mentality Toward Agroecology**

Through field observations, conversations, interviews, and member reflections, I came to understand the transition toward agroecological practices and away from agrochemical use as a change in mentality, or way of thinking, rather than simply a change in food production practices. To take the risk to change practices, one has to believe in their efficacy. The role of risk in mediating choices in agricultural production, especially subsistence production is important to recognize. Growth cycles are long and rainfall patterns are increasingly unpredictable. To take on new practices is a significant risk to the livelihood of a family which depends on harvest for their food. Unless one has experienced or seen that the new practices are successful for another person who shares the same lifestyle as you, making this change may be difficult. Perhaps this is why, as Holt Giminez (2006) explains, many promoters invited participants of workshops to be skeptical, not to trust their word, but to try it themselves.

Through these investigations it became clear that pedagogical principles that were important in facilitating this transition were: seeing is believing, leading by example, learning from peers, learning by doing, and expanding ideas of what is possible. The principles that guided the work of FPP add to, or reinforce the importance of the pedagogical principles found in academic descriptions of CaC methodology (Holt-Giménez, 2006; Machín Sosa, et al., 2013). In this case, the pedagogical tools used in enacting these principles included exchanges of experience, promoter guide implementation and validation of practices, and hands-on workshops focused on practices that taught agroecological efficiency. The fact that practices that were implemented increased food production and resulted in improvements in health were important motivators to continue using these practices once they were adopted.
PG implementation and validation of practices. In promoting the transition toward agroecological practices, the PG had a role in implementing and validating practices before sharing them with their group members. For example, I was told of a PG, Abigail, who wanted to know if it was worth the effort to grow larvae from bird manure to feed her birds, so she did a controlled experiment with four chicks. The first two were fed only commercial corn-based feed, while the other two were fed the commercial feed and the larvae she raised in bird manure. The results were so impressive that another promoter, Candelaria, bought the two largest birds, the ones that were fed the larvae.

Walking with Gelasio, a former PG and a current CT, through his backyard garden, the difference between his tall green corn stocks and those that I had been seeing scattered through the dry fields on our trips between the various communities in Calakmul was immediately apparent. As a PG, Gelasio had worked with a group of young people, who, as he put it, kept asking him what he was doing and how, and he said, “if you want to learn, I can teach you” (Gelasio, SMR, 09/19). How his group started highlights the importance of the role of PGs in stimulating neighbourhood curiosity through implementation and validation of practices. When walking by the property of their neighbours other Campesinos/as saw larger pigs, healthier chickens, free bio-gas that saved time and energy, and healthy bunches of cilantro, all of which aroused their curiosity. I heard several examples of both participants and PGs in this program being approached by neighbours and being asked, ‘How did you do it?’ Importantly, this program is open, anyone can join and benefit from the knowledge shared.

PG Marcela told me she used a demonstration to convince her group members to try growing the larvae from chicken manure.

When I first told them about the larvae, well, a lot of them didn’t want to believe it. So, I said, ‘I will do it so that you can see how it is done and then you can try it.’ When it was ready, I called them to my house to see it (Marcela, PG Int., 02/19).
Marcela’s group member Mariela then told me that Marcela then asked each participant to try it and then came to visit them to see how it went. Marcela explained that there were those who were still resistant because they didn’t like handling the manure, so she offered a solution of growing larvae instead using kitchen scraps. You simply let them go bad, she said, and the larvae grow.

This example underscores the important principle of learning by doing, which was followed throughout this program. In the workshops I observed there was a theoretical part and a practical part, so participants not only talked about how to do things, but they actually did things together. After a hands-on workshop I observed in Ley de Fomento, Maria A. D. said that she enjoyed the workshop because they were engaged in learning by doing.

It's not just only blah, blah, blah, but you're going to see it, you see it, it's when you learn when you see it, when you handle it, when you do it. You hardly learn when they come to you and they talk to you, talk, talk, talk. They just give you an idea of how it will be or how it could be done, but when you see it, and it stays inside you…yes, and when you apply it, you learn more… (Maria, A. D., P. Int., 03/19).

Maria A. D.’s appreciation of the hands-on workshops is evidence that she has experienced workshops where there is only talk. It is implied here that she does not implement the practices at home when there is no practical implementation during the workshop because she feels she has not learned enough to be able to implement. Maria A. D.’s enthusiasm for learning by doing was also evident during the workshop where she was actively engaged.

**Exchanges of experience.** Many of the promoter guides explained to me that exchanges of experience played an important role in validating sustainable practices. One PG said, “In exchanges of experiences you learn more” (Samuel, PG Int., 02/19). Exchanges of experience were trips to other municipalities or states in the region to visit working examples of agroecological models of production. Staff planned these trips because the experience itself
convinced *Campesinos/as* using examples rather than words. Rey explained that exchanges of experience:

... have awoken their [*Campesinos/as*] curiosity to do this type of management and well, ... have allowed them to see that it is possible to produce without using so many agrochemicals. Or we can produce if we associate different crops, I think that has been very valuable. This is why we do exchanges, because they see that, yes, it is possible, and they take with them their own ideas of how to do it... for some it is already working (Rey, Fac. Int., 03/19).

Promoters spoke about exchanges as something that expanded their imagination to the various possible ways a food production system can be designed. Exchanges of experiences were important because people saw what was possible, what worked, and that these practices were worth the risk and effort to implement. As one PG noted:

> Sometimes we say, ‘alas, I don't have any money’ but sometimes you don’t need large amounts. It’s just creativity...if it can be improved, for example, sometimes it’s a matter of rearranging things after observing the systems of others, you don’t have to invest more money (Olivia, PG Int., 02/19).

Marla, the field team coordinator, who hired Gelasio to be a Community Technician after he had been working for a year as a promoter guide, explained that when they first came to know Gelasio, he was a stubborn supporter of agrochemical use, believing that “you have to use the chemical because you can't work any other way” (Marla, Coord., SMR, 09/19). She explained that through their work they have seen a complete change in his ideology. When I asked how this change occurred, she told a story about an exchange of experience with Don Bernardo Xiu, a Mayan promoter of organic farming at the agroecology school in Mani, Yucatan called *U Yit’s Ka’an* meaning mist falling from the sky in Mayan. She said:

> I feel that he [Xiu] has marked the lives of many people not only in FPP, but in the whole Peninsula, because he is a very recognized man for the ecological management of his production, with his family, he has the whole system, he works with bees, he has his pig production, he has his baby cow to generate manure to make his fertilizers. I feel that he is a person, Don Bernardo Xiu, who has marked the life of this center of operations. It was the beginning. To have taken Gelasio to those trainings was the best thing that we could have done because now he has a different way of thinking (Marla, Coord., SMR, 09/19).
This story draws attention to the importance of exchanges of experience as opportunities for
Campesino/as to spend time observing practices in action. It also illustrates how transformative
these experiences can be, with the role of the leader they visit as key in this transformation. She
also told another story about a transformative experience for a chili producer and his son from a
nearby community. FPP took them to a course with Jairo Restrepo, a well-known agroecologist
from Brazil who gives hands-on courses on what many call regenerative agriculture.

That week that we were on a ranch there in Yucatan, tangled with this gentleman Don
Jairo Restrepo, he changed..., he changed the ‘chip’ of this producer and he returned
convinced that agrochemicals are not the way, but organic production, so I think there
have been people or moments (Marla, Coord. SMR, 09/19).

When Marla said, “People or moments” she indicated that it was not just the example that
changed the mentality of the producer, but the experience itself as well as the promoter that
played pivotal roles in this change. By saying, “he changed the ‘chip’ of this producer,” Marla
credited Don Jairo for the change in mentality of the producer. Her expression of time and
relationship, “the week they spent tangled with this gentleman” indicates the importance of time
spent together during these exchanges. Trust is also important to consider as a mediating factor in
changing mentality toward agroecology. It is logical that if one trusts the person who is
promoting these new practices, one is more likely to believe in what they are promoting. The trust
in this case comes from observing the results of agroecology practices and learning the practices
through hands-on workshops. Exchanges of experience are important because they provide
experiences where Campesinos/as learn from examples provided by trusted peers. After having
produced chilis using agrochemicals for many years this producer was convinced to try a new
way because he engaged in hands-on workshops with an agroecologist with lots of experience.

Upon his return he implemented what he had learned from Don Jairo Restrepo and
experienced an increase in production on his own land, from a yield of seven hundred or eight
hundred kilos of corn per hectare to two and a half tons per hectare. Marla explained that many people don’t believe this is possible until they see it happen. Seeing is believing. She observed:

The change, the radical change in production yields… these are the cases that help us, because obviously the producer is convinced, but that helps us in our mission so that more producers start to believe (Marla, Coord., SMR, 09/19).

The increase in production served as a model not only to convince the producer, but as an example for others; a way to spread these practices. As Olivia PG for a group raising sheep explained:

It was worth all the effort, the time invested the hours of work… it counts a lot, the fact that they [participants] see results of the work, even though sometimes the results are intangible, no? Because if I learn and I implement, and there is a good result for the work I have done, …this is when they value it, when they evaluate if it works or not (Olivia, PG Int., 02/19).

FPP staff acknowledges that it has been challenging to convince producers to try these practices. When I asked Gelasio why he chose to work with youth as a PG rather than other adults, he explained:

This is why we focus on children or young people to be able to change the ‘chip’ as they say… before being an adult, right?… because they don’t know, with adults it is difficult, very difficult, what they say is the way it is and nothing more (Gelasio, CT, SMR, 09/19).

With this example, I began to better understand the objectives of the promoters who worked with young people. They were not merely encouraging young people to start gardens at home, but also to disrupt their thinking before it was fully formed, that is, to influence them in their ideas about what is possible in agricultural production, to expand their ideas of what is possible. Rey added:

The men of the communities already have certain customs so it is not very easy for them to change, so what they [promoter guides] are looking for is to have an impact with the young people who will be the future producers under this vision (Rey, Fac., SMR, 09/19).

I was told that it took a lot of effort to convince an adult to change their practices, but what did convince them was learning from other producers and agroecologists in hands-on exchanges of experience where they could see examples of a production system in action. Having
Gelasio as a promoter and later a community technician was important because he understood the mentality of those who were resistant to change, as he was also once in their position.

**Expanding ideas: what is possible and what constitutes a resource.** Workshops focusing on practices that taught agroecological efficiency played an important role in expanding participants ideas of what constituted a resource. Examples of agroecological efficiency included, feeding backyard birds larvae grown in bird excrement or building a raised bed with a chopped-up banana trunk layered in the bottom to provide moisture in the dry months when water is scarce. Participants told me how their knowledge has expanded through these workshops and they think about what they have out lying around in a different way. Maria noted:

> I’m very excited because before, nobody had told us how to keep the moisture under the ground and I’m going to practice this... Normally we throw them away [fallen banana tree trunks], we leave all the leaves, we don't take advantage of it... if one doesn’t know, one cannot take advantage (Maria, A. D., P. Int., 03/19).

This is an example of a change in mentality toward agroecology. Participants now think of waste as a resource that can be used in food production. When asked what was the most important thing she learned through participating in capacity building with FPP, PG Mariana explained that:

> We always say we have few resources, no good soil, no water, but it is motivating to learn there is a way…when I go to listen there, my mind opens, what I don’t know, I am learning there [capacity building workshops] (Mariana, PG Int., 03/19).

Rosa, one of Mariana’s participants explained that she also hadn’t realized what resources she had lying around, and said, “So for this reason, I am learning that I have to teach my children this also so that they take advantage of and value what we have here” (Rosa, P., Int., 03/19).

Participants and PGs spoke about adapting to local conditions through diversifying animal feed with local resources, soil rejuvenation, garden design, prevention of animal sickness and better management of production systems through the use of agroecological efficiency.
Agroecological efficiency was also found in the form of optimizing food resources. PG Olivia gave the example of the forage verde, or sprouted corn, as a way to optimize food resources. To explain, she used the expression “entre menos es mas” [within a little bit there is more] “Why? Because with a little corn you can produce enough fodder and this without increasing costs” (Olivia, PG Int., 02/19). She also explained that when you sprout the corn it releases nutrients, making them more available to the animals. Particularly in this region, practices that reduced the need for water were very important. For example, after the workshop on building a garden bed with a chopped-up banana trunk, Rosa, a participant explained that this will help reduce the need for water. She explained:

I see that there are many techniques, all that is missing is the knowledge and the practices. Like for example, this now [the workshop] it is very useful, no? Now during the dry time it is very recommendable because we see that the bark absorbs the liquid, and now it will not be as necessary to have as much…to add much water because it comes from there in the plant itself, the seeds will absorb the oxygen of the water and now it won’t be as complicated. Because here we suffer a lot from the lack of water, and well, I think this will be a great help, very useful (Rosa, P., Int., 03/19).

The practices learned during the workshop showed participants how to use what they had on their properties, often lying around, to reduce their need for water when growing food.

It also became apparent that once participants adopted these practices, they were motivated to continue because of the positive impact on their health. Rey and Marla explained that many Campesinos/as in the region had developed significant allergic reactions to the agrochemicals they were using in their production, and for some this was motivation to move away from their use toward agroecology.

Yesterday a producer told us that he is now doing everything with agroecological management and it has changed his life because he no longer feels the allergies he had before when he was applying agrochemicals, so this is very significant (Rey, Fac., SMR, 09/19).
Participants recognized that their health was directly connected to the health of their animals and plants. Maria remarked that because she now has her pigs fenced in, she now knows exactly what her pigs eat. She said that the result is:

> clean meat, clean food, clean water…. We used to let them [the pigs] go and they would sometimes come back hurt and out there they ate [pause] who knows what, and that's not healthy for people, and now since they are fenced in, I know what I'm giving them, the exact food I'm giving to them and I'm sure, conscious, that the meat I'm going to eat is clean (Maria, P., Int., 02/19).

As Juan, a participant in PG Olivia’s group of sheep producers explained, the most important thing he learned in this program was to grow, “healthy food with a different mentality, with another mentality in which there is no use of agrochemicals, no, everything is organic…look, number one is health, two: earth, and three: a healthier product at harvest” (Juan, P., Int., 09/19). Rosa, a participant in the gardening group in Ley de Fomento, expressed that “as one’s knowledge advances, one visualizes a future, well, much better, very healthy, a healthy future, without sicknesses, without so many chemicals in the body, more strength, even to arrive at the age of one hundred years old, no?” (Rosa, P. Int., 03/19). This testimony from Rosa shows that the implementation of agroecology practices resulted in hope for a healthier future.

**Theme 3: Focus on Building Relationships**

A prevalent theme that arose during data analysis was a focus on building relationships in developing and maintaining *CaC* learning networks. This theme contributes to an explanation of how the culture created by *CaC* promotes peasant protagonism and also what sociocultural conditions enable participation in *CaC*.

In the previous theme, it was clear that relationships of trust with others was important in transitions toward agroecology. The importance of these relationships in creating the culture of *CaC* was apparent throughout all aspects of this program including the building of *CaC* learning networks and the continuing participation in *CaC* pedagogy. Particularly important relationships
emerged as having influence on the culture created by CaC including: FPP–community relationships, PG–staff relationships, PG–participant relationships and PG–PG relationships.

FPP–community relationships. It takes time to build a relationship of trust and good communication. Rey acknowledged that, “in the beginning it cost a lot of effort to initiate and grasp the rhythm of working with families” (Rey, Fac., MR Refugio, 09/19). Hiring staff from communities in Calakmul who were Indigenous and also spoke or understand Cho’ol or Tsetsal was part the process of building community confidence in their organization. They explained that when promoters, participants and technicians could speak the same language and understand each other’s situations, relationships of trust were built. Hiring locals meant their staff already had knowledge of the culture and socio-political and climate conditions of the area. They also already had relationships with community members and were well positioned to build further relationships of trust in other communities.

I observed the staff members of FPP working in a way that showed respect for PGs and community members as equal partners and holders of knowledge. As an organization FPP practiced inclusive capacity building where participants, PGs, and staff attended exchanges of experience and courses together. This promoted a culture of inclusivity and also provided training for staff, who often did not have specialized degrees in agronomy or veterinary medicine.

Ezequías, a CT, described an important distinction in the way that staff approach their work in this program:

We always told [participants] that we don’t have a career in the topic of birds specifically, or the topic of sheep. We do not know perfectly, or everything. We have certain knowledge because we have also taken courses, and if we do not know how to resolve issues in the moment, we take notes and on another occasion, we resolve it. We also always say the same to promoter guides, that they should say to the participating families when they are given a workshop, and a doubt arises, ‘well, I don’t know, let me go ask,’ but also they are promoter guides so in some way, they have been creating experiences also upon the basis of their animals and in this way they have been becoming stronger (Ezequías, CT, Int., 02/19).
This approach signifies both that staff did not consider themselves as experts or ascribe themselves a superior status to Campesinos/as, but also that they valued the knowledge and expertise of promoter guides gained through their experiences with their animals, or in growing plants. This indicates that staff and PGs engaged in reciprocal peer–to-peer relationships. When I asked where the knowledge originated that was being taught during workshops, Marla explained their approach in this way:

Really the people from the communities we work with they already have the knowledge of how to sow, what we do is propose new adaptations for them to have a better performance, through the specialists, let's say, it's like making new proposals to them, but because knowledge is already there (Marla, Coord. Int., 02/19).

This respect for participants as knowledge keepers was echoed in the staff’s way of facilitating. They gave support, but did not take centre stage, signalling to participants that PGs were holders of knowledge. Rey explained, “they help us to initiate processes and we intervene when we consider it necessary” (Rey, Fac., Int., 03/19). This respectful way of facilitation built relationships of mutual respect with communities.

It was clear in my observations of their planning process and in the staff’s daily work that they actively prioritized the needs of the community in deciding steps to take in their various projects. This was slow and delicate work. Meetings were often held in communities to consult on issues, decide priorities and schedule workshops. In their work FPP built relationships through making efforts to respect local cultural practices and cultural gender roles. For example, Marla explained that “in the first intervention in the communities we made an identification of problems with each community, we did it separately, men and women, to have the two visions” (Marla, Coord. Int., 02/19). They also respected the custom of men accompanying women when they travel outside of their communities. At the two PG meetings I attended, the families of the female promoters were also in attendance, both spouses and children, some as translators for women
promoter guides without Spanish language skills. By encouraging both participants and promoter
guides to use their Indigenous languages, they expanded the potential pool of program
participants to include women and especially older women who did not have literacy skills in
Spanish.

These monthly in person PG meetings were essential to communication with communities
since there was no phone reception the communities FPP worked with. There was WiFi internet
available at schools in some communities, but not many Campesinos/as had the technology
adequate to use WiFi. In recognition of the challenges faced by Campesinos/as in Calakmul, FPP
covered the cost of transportation for the whole family to these meetings and provided food after
the sometimes two to three hour long meetings. This indicates a reciprocal relationship of
understanding, support and respect. Staff recognized that PGs play a vital volunteer role in their
community work and that many would not have been able to attend meetings without bringing
their children. Staff also had an understanding of life in communities in Calakmul, where very
few families had vehicles or funds for transportation, and the combi (private 15 passenger van
transportation between communities) to Xpujil where the meetings took place often left early in
the morning. Providing food after meetings was important since otherwise, PGs and their families
would not have eaten for a large stretch of the day. I also observed that the time spent sharing
food was an opportunity for informal conversation between PGs and staff and among PGs.

In my observations, I saw genuinely caring relationships between FPP and their
participants. Staff’s care for participants was manifested through their commitment and
continuity in their community involvement. They believed that community problems would not
be solved by simply giving a fencing or a workshop, but that transforming production systems to
be sustainable and self-sufficient required constant effort, capacity building, and consistent
support. Their respect for participants was observed in their encouragement of the use of
Indigenous languages during workshops, being punctual (not common in my experiences in this part of México) and advising PGs ahead, in person, if changes to workshop times where necessary. I also observed staff cultivating genuine caring relationships through sharing food, laughing, making sure everyone had food, and staying late to answer questions, or just chat. Their care for their participants also came through in the amount of time spent working, often staying until eight or nine at night in the office after spending all day in communities. During my time in Calakmul, I also observed staff engaging with participants in a humble and participatory way. For example, in the practical part of PG led workshops Rey took the role of an active learner, pitching in when there was work to be done, such as fetching water or digging a hole, and actively learning from Campesino/as about plants he was not familiar with.

Another significant aspect of maintaining good relationships with communities was continuity, especially given that community members were accustomed to government programs that were short term. Marla explained that programs often came to this region in which:

there is no follow-up, there has been no continuity; there have even been cases where they have not even finished the execution, they have left things in the middle. And then, the agency runs out of money and, well, that’s it, that’s the end of it. There have been working programs with sheep, bees, chickens, various issues, which unfortunately many were abandoned, there was no follow-up and people have abandoned them (Marla, Coord., F. Int., 09/19).

During one of the member reflections sessions, Rey expressed FPP’s commitment to continual relationships with communities this way:

I think Doña Candi [PG Candelaria] knows and I hope also all of you know, that we as an institution are always going to try to support you, maybe with more knowledge and less infrastructure, but, well, the idea is to always be with you (Rey, Fac. MR Refugio, 09/19).

The choice to create the role of promoter guide is, in itself, a focus on building relationships of continuity with communities. By recruiting knowledgeable members of communities who were willing to share their knowledge as promoters guides, they linked
themselves to the community through this ally. FPP built relationships with communities by cultivating relationships with participants in their workshops who later became PGs. FPP staff then relied on PGs as their link to continuing their relationship with communities. Candelaria explained:

I feel that *Fondo Para la Paz* decided to look for promoters in each community because we already know the people. For example, if you were to become a promoter guide and you came here to work, it would be complicated for you because you don’t know the people, how they are, their character and everything. Even the community technicians come for a meeting, they make a time for the meeting, they arrive, and sometimes no one is here [laughter]. So, I think the promoter guide role was born out of this. A person who would be from their community, and who would know really how their community is, and can be close to the people…(Candelaria, PG. Int., 02/19).

This quote illustrates how important PGs’ community relationships were in promoting engagement with FPP. PG Marcela added how, through their relationships in community, PGs become an important link for communication between the organization and communities they work with.

I feel it was a good strategy on the part of FPP that they searched for a promoter right here in the same community because they know better the necessities that we have. I have been told that …if it were not for me, that I entered as a promoter, we [the community] would not have had the communication that there is now with FPP (Marcela, PG Int., 02/19).

In this example, Marcela also acknowledged the importance of good communication in the reciprocal nature of FPP-Community relationships. The PG role itself was created to maintain good communication and relationships with communities.

**Staff–PG relationships.** It is not just the existence of relationships but the quality of relationships that sustained the operations of this program, especially the relationship between PGs and FPP staff. After several years working in the region, participants considered FPP as an organization they could trust, with a team that did what it said it would do and cared sincerely about the participants in the program. PG Olivia explained that she related to the staff with respect and friendship as follows:
It is a friendship. For me they have been a great support because we have learned so much, so this brings them in our favour because we have to appreciate them and the facility they have given us… we are always accompanied by FPP and always very, very supported, very strengthened because of them (Olivia, PG. Int., 02/19).

Candelaria explained:

Well, I feel like we are a big family because we get along very well with the technicians, with Marla... whatever we need, we can ask them. In the case that they don't comply, then we know we can go to Reynaldo who is the supervisor, or to Marlita who is in charge there. But we do get along very well (Candelaria, PG Int., 02/19).

This quote illustrates not only the strength of the relationships, but also their familial nature. It is particularly interesting that Candelaria used the suffix “ita” when speaking of the coordinator who is in charge, since this suffix is used in Spanish to indicate either smallness or affection. In the context of this quote it is assumed to indicate affection for Marla, who is older than Candelaria and about the same height. PG Mariana spoke of the staff as “bien cumplidos” (Mariana, PG Int., 03/19) which means they were trustworthy, or they followed through with what they had promised, of critical importance for maintaining relationships of trust with PGs and thus, with communities.

During one of the PG meetings I attended, they engaged in an exercise where everyone voiced their suggestions for the program going forward. One of the PGs said, “no se cambia este equipo”, meaning, don’t change the staff team. When I asked Rey about this later he said, “Yes, we already have a relationship, and well, we try always to be a presence, even though sometimes it is very complicated” (Rey, Fac. Int., 03/19).

**PG–Participant relationships.** In interviews, I asked each participant how they related to the PG and each one said they got along well. Mariana, a participant in a group in El Manantial, said in response to my question, “no hay diferencia entre nosotros” (Mariana, P. Int., 02/19). This phrase has a double meaning in Spanish, both that we are equals, and that there are no problems between us. This means that participants and PG related to each other as equals and also
that relationships were maintained through this mutual respect. PGs relied on relationships they had with other members of their community to find group participants. PGs also needed to cultivate and maintain relationships with group members in order to continue their work.

Olivia indicated that an important aspect of relationship formation in these groups was the sharing of experiences, saying, “We all share our experiences with each other, and this is where the group takes shape” (Olivia, PG Int., 02/19). All of the participants I interviewed felt a sense of belonging to their group and all except two said they felt comfortable expressing ideas or concerns and said they had contributed knowledge or ideas to the group. The two participants who said they did not feel comfortable expressing their ideas in the group told me that they were very shy and did not generally speak in groups.

Home visits were also important in maintaining these relationships. The proximity of PGs to their participants meant that they could walk to each of their group members’ houses and visit them. PGs spoke of several reasons for visiting their group members including planned visits every 15 days to see that they were implementing the practices they have learned, visits to distribute any material benefits, visits to consult on decisions or give information if not all the families could meet, and visits upon request of a group member who needed help with something. Some PGs, especially those with smaller groups, used home visits to share knowledge on a one-on-one basis rather than gathering everyone together for a workshop.

PG Samuel explained that participants related to PGs as guides as the name implies.

The PG’s responsibilities are to follow up about the gardens. For example, if he [group member] has a doubt in the planting of radish or lettuce or coriander, he does not know how to plant it, he asks my opinion, he knows [pause] that I am a guide, a promoter guide, and as this word means, to guide those who do not know. I come and tell him, ‘it is like this, you water like this, you sow like this.’ That’s why they call it promoter guide, to guide people, take them forward (Samuel, PG Int., 02/19).
From the point of view of the participants, they see PGs as a conduit for knowledge and a catalyst for learning. Juan explained, “FPP is giving capacity to her [PG Olivia] and she gives it to us. So, she is teaching us and we are learning” (Juan, P. Int., 02/19). Another participant spoke of PGs as a catalyst for learning, “They bring us new ideas so we can keep learning” (Maria, A. D., P. Int., 03/19).

Despite the positive relationships that many enjoy with PGs, not all relationships in groups have been easy. Several PGs expressed challenges related to group relationship formation. For example:

Well, look... in my community I feel it's very complicated. It is very complicated because we have different ways of thinking, we have different ways of acting, of looking at things, opinions… the opinions that one [participant] had do not please the others … sometimes they act as if they were attacking… or there was another compañera who wanted to be the one who monopolized everything, ‘this is mine and I do not share it with you’, so I feel that here in the community it is very complicated (Candelaria, PG. Int., 02/19).

When I asked Rey about this challenge, he said that PG are responsible for the social development of groups and there have been challenges. For example, “at the beginning the problem we had was that none of the groups wanted to work with other people. What they wanted was very small groups and only they wanted to make proposals…” (Rey, Fac. Int., 03/19). He also explained that in some cases cultural differences have affected group dynamics in some communities, as follows:

Communities in which they do not have the same cultural origin, there are communities where the Tsetsal and Cho’oles are mixed, [pause] some that speak Spanish, and from other parts of the Republic, that does affect relationships within the community. We have seen that in the communities where they share the same customs, it is easier for the promoter guide to develop their work. In the other communities there is always a bit of a difference in how they see things. In this case, the cultural part does have a great influence on learning (Rey, Fac. Int., 03/19).

These challenges reinforce the importance of long-term, consistent engagement in supporting the social development of groups.
PG–PG relationship. In the interviews with PGs, the relationship among PGs emerged as a significant facilitator of PG confidence building and knowledge exchange. PGs spoke of how important it was to meet monthly to share ideas, successes and discuss problems with other promoters. Through the cultivation of these relationships, PGs had become a support system for each other, which gave them motivation to continue their work. Candelaria explained,

I got used to the fact that every month I go to a meeting and there I go to see all the colleagues, we talk and exchange ideas. I tell them what I have done and ask how they are doing, or for example someone says, I made forage verde but it didn’t work out, how do you do it? And we have already began to speak to each other about our personal lives, that is to say, we felt like a family, we got along very well everyone…we have coexisted, shared almost more than a year with the promoters guides and we have never had a problem, nor with the technicians, no, never. We arrived at our meetings, we all gave our opinions, we all talked, exchanged ideas, opinions….it is a very nice experience (Candelaria, PG Int., 02/19).

Rey and Marla also spoke of how important these meetings were in developing PG-PG relationships and PG confidence so that they could exchange knowledge.

I think there is something important that happens at meetings. At the beginning, no-one really spoke, but over time those promoters who were very shy had the chance to build relationships and confidence, with the passing of time, they began to gain confidence, and gained confidence to be able to speak in public (Rey, Fac., SMR, 09/19).

Marla added that the relationships they developed with other PGs helped build their confidence in their own work.

In these meetings they spend time together they get to know each other. But, there was also a lot of interaction between communities, for example, in the topic of pigs, they shared experiences together in different communities, Susana, Maria, Oli, Marcela, all the promoters went to Carlos A Madrazo [community name] to see the production system of one promoter, there was a lot of interaction between them that helped them feel more comfortable, even outside of these meetings (Marla, Coord., SMR, 09/19).

Activities both within and outside PG meetings cultivated relationships between PGs, which facilitate further PG personal development. It is clear that relationships were an important catalyst for participation in CaC as well as in the development of peasant protagonism, especially among PGs. These relationships were cultivated through knowledge of community context,
respecting Indigenous culture, sharing experiences among peers, care, and continuity. Since their way of working with communities was based on cultivating relationships, FPP staff made clear that it was very challenging when there was staff change over. “When there are staff changes, it is difficult because you lose connections between people… it costs a lot of time to make those connections again and build the trust again…it has been complicated, and one of the reasons that we are behind on our goals” (Marla, Coord., SMR, 09/19). In the same discussion, Rey noted the PG role had been key in keeping important relationships with community members because there had been less change over among PGs when compared to the frequency of staff changes they had experienced.

**Theme 4: Creating a Culture of Participation vs. Paternalism**

The fourth theme that emerged as important from my experiences in Calakmul was FPPs efforts to create a culture of participation in CaC pedagogy and the challenges they faced created by a hegemony of paternalism and conflicting ideologies with government rural development programs. This theme deepens our understanding of how CaC pedagogy promotes peasant protagonism and what socio-cultural conditions hinder/enable and motivate Campesinos/as to participate in CaC learning networks. It became evident during my time observing and interviewing staff and participants in this program that FPP worked with a participatory model, which moved communities toward creating a culture of participation. The purpose of this participation was to develop the capacity of Campesinos/as to use the infrastructure given, to gain knowledge, and experience. It also contributed to their broader goal of self-sufficiency by building the capacity of groups to design their own self-sufficient systems so that they could make proposals about the kind of support they needed for their systems to function well. The first step in creating this culture of participation began with the participatory diagnostic. By using a
participatory model to understand community context and the needs of the community, FPP built a program that would respond to these needs and thus participants would be motivated to join.

**Motivation to Participate.** Participants and PGs were motivated to participate for several reasons, most importantly their continuous struggle against suffering and their need for support. Thus they were motivated to participate by the material supports given by FPP such as infrastructure, since they did not have the resources to obtain these on their own. Many participants and PGs also expressed that they were motivated to learn and felt successful because of all of the knowledge they had gained. PG Olivia explained that it is almost always both a need for infrastructure and a desire for knowledge that motivated participants:

Well, there is interest because there are needs, in the production systems. So, we know that ... if I integrate, then logically I go because of my interest right? I need, for example, a galley, I need a Rotoplas [rainwater collection barrel] to conserve water, I need feeders, I need water troughs, but I also need to learn how to manage diseases or how to identify a disease, right? How am I going to treat it? So, all this also means that people care, right? So you know that if you participate in a group, in a training, you will have a positive result for your knowledge also, right? (Olivia, PG Int. 02/19).

Both PGs and participants regarded this program as an opportunity to receive support and to access knowledge from experts in the prevention and treatment of animal diseases. For example, when I asked PG Marcela what her initial motivation was to participate in the program with FPP she said:

well there were technicians for, doctors for chickens, there were vets, and they gave us capacity building workshops on how to know more….what we could do when they [animals] get sick…more than anything [I was motivated] to have a guide, to know a bit more” (Marcela, PG Int., 02/19).

Juan, a participant in PG Olivia’s group of sheep producers explained that this need had arisen because of changes in the region:

Before there were no sicknesses, the only thing we had to do was treat for parasites, but now there are many different sicknesses so we need a vet, a technician, because well, we have the practical knowledge, but we are missing the theory (Juan, P. Int., 02/19).
As well as pointing to a need for access to expert theoretical knowledge, these quotes also show a willingness to build on their existing practical knowledge base. Many participants and PGs spoke about their motivations as related to a desire to learn. Candelaria spoke about knowledge as a valuable, and infinite resource.

For us, it is about sharing what we [PGs] go to learn. There is nothing richer than what you can learn or what you can share. What you gain, is what you learn. What they give you can run out, or brake or rust, but what you learn never runs out (Candelaria, PG, MR Refugio, 09/19).

Learning as a motivation, was expressed by many participants and PGs, especially when I asked what motivated them to continue participating. Juana said she would continue to participate, “to continue learning, because we never stop learning” (Juana, P. Int., 02/19). In a similar sentiment, Samuel said he wanted to continue participating because, “In this life, one never stops learning” (Samuel, PG Int., 02/19). Several participants and PGs spoke about being motivated to participate for the purposes of passing on knowledge and practices to the next generation. Armando, the teacher working with Samuel on a school garden in La Victoria explained that this project has been very successful because:

The children [pause] they do not all have the opportunity to work with their fathers, but there are fathers who are encouraging them to make their own little garden bed at home and I have seen that the children are participating there, sewing seeds, moving earth at home and that is very, very, very good because we are forming a culture of gardening and production within the children themselves (Armando, T. Int., 02/19).

Rosa spoke about how, her garden served to reproduce the culture of subsistence, her family’s Campesino/a lifestyle with her children. She observed:

I’m chopping dirt sometimes with a stick, and he’s chopping too, he is curious to be there too. He, and the other older boy already helps me by bringing me buckets of water...at the same time, I teach my children that it is not necessary to buy it if we can sow and harvest it ourselves, they learn everything there [in the garden]...There’s more living together with family. We are talking about the union of the family (Rosa, P. Int., 03/19).
This quote highlights not only her motivation to pass on knowledge about food production, but also her motivation to encourage activities that built shared experiences, creating family unity. This echoes the motivations of Campesinos/as to participate in these groups as a way to spend time together with other members of their community. Especially the women spoke about how they spent most of their time at home working because of their responsibilities of cooking, child rearing and taking care of gardens and animals. These groups gave them an opportunity to spend time with other members of their community. The eldest member of one of the gardening groups, for example, said, “Because I almost never go out, I am always in my house, so if I receive a visit, or if they invite me, I go, everyone is happy” (Antonia, P. Int., 03/19). Rosa, a participant in the same group added:

The only chance we have to share experiences is in these workshops, and it is very good, no? We get to relate with other people, to share experiences, practice together, to get to know people outside of the family, this makes it harmonious work, and if you are going to do it, they will help you do the work with joy (Rosa, P. Int., 03/19).

Marcela added that part of her motivation to do the work of a PG was to break out of her daily routine in the house, but also to contribute to her community.

This work is, is like an adventure, do you see? Like, I say to myself, ‘I am going to leave the house today, I am going to escape’, …not another day with the same routine like all the other days, I am going to see something new, do something new and to be able to help someone else fills you, it satisfies you and I makes you feel good, no? The truth is, I like the work, it is something beautiful to participate, to know that you can do something for your community, your people, your friends, your neighbours (Marcela, PG Int., 02/19).

Creating a Culture of Participation. The motivation of the participants discussed so far could be characterized as intrinsic motivation to participate. A culture of participation was further cultivated by FPP through how choices are made about the program. As an organization FPP built on the intrinsic motivations of participants through the use of what could be characterized as extrinsic motivation. For example, program inscription and membership were based on consistent
participation in group activities such as meetings and workshops. As Sebastian the husband of PG Susana explained:

Luisa was interested in the program with FPP, she was seeking support to fence in her animals, that is why she came to the workshop that day. So that FPP, if the program continues will consider her as a participant. But it also depends because what FPP wants is attendance at the meetings, chats, workshops that they come and give, because the way they see it is, if you don’t come, they would consider this to mean that you don’t want to be a part of the program and you don’t want support…. They operate through the medium of workshops, capacity building, participation. It is like this (Sebastien, P. Int., 02/19).

In other words, to be considered as a participant, a part of the program, group members had responsibilities. These responsibilities included consistent attendance in the workshops and implementation of practices they learned at home. Each participant I interviewed understood these as their responsibilities. Juan, a participant in one of the groups explained it this way, “the responsibility that we have is to be constant, always in the workshops, because if we don’t give it importance, who is going to give it importance? Who are the ones who need it? We do” (Juan, P. Int., 02/19).

The PGs acted, not only as guides, but also as supervisors in creating this culture of participation. They visited the participants every 15 days and took photos of what they had implemented to show to FPP at the PG monthly meetings. In order to cultivate consistent participation this supervisory role of PGs was crucial. PGs navigated this aspect of their role in a very delicate manner, since they also had to maintain positive relationships with their group members. PG Olivia put it this way:

Well, the first thing you [as a participant] have to do is get to the meeting, then put into practice the learning that you gained there [pause] how do you say this? [pause] you don’t force them, that’s up to the will of each person, but nevertheless they know that after the promoter there are other supervisors who will come to visit you at any time, right? So this is the detail. If they feel supported, because as we say, we all go for an economic interest, right? So if they receive some resource from the institution or the government, then they feel more committed, right? …So the more they participate, the more we support them (Olivia, PG Int., 02/19).
Participation was rewarded with support, which reinforced a culture of participation. Support could come in the form of help from the promoter, or in the form of material benefits such as seeds, or fencing, which were given to all members of the group. In some cases participation was rewarded with seed capital. When speaking to Marla about the *autogestión* program which Maria and Susana participated in, she added that, “Of those that participated in the project for those eight months, only three received the seed capital. This was those who were the most participatory, who attended the meetings, who were consistently working on their proposal” (Marla, Coord., SMR, 09/19).

*Campesinos/as* were also selected for the PG role on the basis of their consistent participation. Rey explained that the criteria for selecting promoter guides included their level of participation:

> From each group the one that participated the most, the one that liked to ask the most questions, this was the right one to ask, ‘you know what, you could support us as a promoter’, and it was with them that we established a working relationship (Rey, Fac., Int. 03/19).

Ezequías, a community technician added, “The first selection criteria was their active participation, their desire to learn, their desire to teach” (Ezequías, CT Int. 02/19). This is consistent with what I observed of the PGs who volunteer for FPP. They were willing to work, enjoyed learning and were enthusiastic about their role, making them key protagonists for animating community members to participate.

**Paternalism.** It hasn’t been easy, however, for facilitators, CTs and PGs to cultivate this culture of participation, in their groups. One of the main challenges faced by promoter guides has been attracting and maintaining participants in groups. PGs explained that it was difficult to keep participants, to convince them that it was worth investing time and energy, that learning new things was as important as the benefit of receiving fencing, for example. Staff, PGs and
participants explained that community members were not used to this participatory type of program. They were used to government programs in which the government came once, built infrastructure and then left. “For example, the government does not come and build capacity, but they send someone to do it and its done” (Marcela, PG, MR El Manantial, 09/19). In general, the government programs they were used to, did not ask people to participate in learning through workshops, because there were no such workshops. FPP, on the other hand, has built this program on a participatory model. Marcela added, “As a PG this affects me because people are accustomed to this and when I try to get them to participate or do something, sometimes they don’t want to and you have to be there with them insisting” (Marcela, PG, MR El Manantial, 09/19). As Sebastien, the husband of PG Susana explained, they have had a hard time maintaining participants because:

people want the program, but the problem is they don’t attend the meetings or the workshops. They want a program like the government programs, where the government gives, just like that, for very little, at times they come in just one hit, there is no need to participate in meetings or workshops because there are none [workshops] (Sebastian, P. Int., 02/19).

I was told that sometimes staff and promoter guides were faced with the attitude of “give me something, if you don’t give me something nothing changes.” When I asked what people were looking for when they were asking for ‘something’, I was told, they are looking for material benefits. “Many times, we go for the tangible, for questions of economy, for material benefits, no?” (Olivia, PG Int., 02/19). During member reflections in El Refugio, the daughter of one of the participants said that in general in small communities people have grown accustomed to receiving something for their participation and they don’t value the learning itself. Candelaria added:

It has been a big challenge I have had, and other PGs have had, to make people participate, try to unite them, to organize them, it has been very complicated, because sometimes people have the visualization that, ‘if I come, what are you going to give me, or what are they [FPP] going to give me?’ They don’t have their own willingness to go. There are others that come, but with the visualization that, ‘if I go out and they [FPP] give
something, I'm going to be left out’, so they are stuck there watching to see, waiting for it to come to them. So it has been very challenging (Candelaria, PG Int., 02/19).

I came to understand that there was sometimes a lack of willingness to make an effort or invest time and energy, because community members did not see how they would benefit from participation. They considered a lack of material benefits as a disincentive to participate. Those I asked about this related the challenge to the idea of paternalism.

This ideology, or paternalism, it comes on behalf of the government, here in Calakmul there are many subsidies, good subsidies and ones that are not so good. For example there are many subsidies for using agrochemicals or hybrid seeds here…and yes it generates a lot of dependence because they are accustomed to it, so when we come and say, ‘well, you can produce in a agroecological way with the resources you have locally’, some say, ‘well, what are you going to give me?’ and this is a problem (Rey, Fac. Int., 03/19).

It became clear through interviews and member reflections that this attitude has grown out of a dependency on a government that provides; government as father, to which one is obligated, and on which one is dependent. As my own notes indicated:

When I first reviewed the data and was getting ready for the member reflections phase of the study, I knew I would need to talk about the issue of paternalism. I needed to know how they wanted me to speak about this issue, if at all. I spoke to my cultural insider to ask how I could approach this without insulting participants. After incorporating his suggestions, I asked the staff of FPP if the way I had approached it in my writing would insult anyone, telling them, I was nervous about reading it aloud to participants. Marla laughed and said not to worry, everyone is well aware of the problem of paternalism.

When I broached the subject in each of the groups, I was surprised how openly people were in discussing this issue. I was also surprised not to hear any dissenting views. Everyone depicted the issue in a similar way. I did however come to realize through reviewing the data in an attempt to understand this, that many expressed the view that this area is marginal, facing many issues such as lack of water and poor soil, making the goal of self-sufficiency of Campesinos/as very difficult. I came to see that many Campesinos/as in these communities don’t have the privilege of choice when it comes to participation or not, in whatever support or subsidy comes on offer (author field notes, Mexico, 09/19).

In a discussion about paternalism during member reflections in Ley de Fomento, Maria Elena said:

People are accustomed to the idea that the government provides for people. And if they do it well, or they don’t do it, there are no consequences. How do I say it, they don’t check,
or supervise. In comparison FPP, yes they give you things, but there is continuity, they are following a process. I think this is good because it obligates us to work. They give you things, but you have to work, you have to put it into place. There are people who think that the projects that are coming don’t have any benefits (Maria Elena, P., MR. Ley de Fomento, 09/19).

To this last statement, another participant responded, “only because they don’t want to work” (Voice of participant, MR Ley de Fomento, 09/19). This is an example of how the hegemony of paternalism reinforced passivity and presented daily challenges for staff and PGs working toward community self-sufficiency. Ezequías added:

This is a very complicated challenge, when a family is always waiting for something, not capacity building, or personal growth, but something material, something physical, but this is difficult when this is not the objective.…Also for participation because, the government constructs it for you, el gobierno da [the government gives], so it is like a shock right now…when we arrive and we say, this is self-construction, it involves family participation, it is totally different (Ezequías, CT. Int., 02/19).

As is demonstrated in this quote, the hegemony of paternalism creates direct challenges to creating a culture of participation in this case.

The hegemony of paternalism also created misunderstandings around money. Since communities were accustomed to the idea that benefits were given in exchange for participation, some community members did not believe that PGs did not receive a salary. They assumed that if someone was doing work, that they were being paid to do it. When I asked Candelaria how this perception affected her, she said:

They [some community members] think I don’t miss any meetings because I am paid to go…it makes me uncomfortable because I really feel I am participating because I want the best for my community.…One can get a bit discouraged sometimes because it makes you wonder, ‘what do the people want?’ They don’t understand you, you will never make them happy (Candelaria, PG. Int., 02/19).

As Samuel explained, these misunderstandings around money also create challenges related to participation. He said when he asked for help from the community to dig up soil to make garden beds at the school he said:
they didn’t want to work… the adults here are very sour … they say, ‘that’s Samuel’s work’, and I say, ‘I work with the children, this work is not for me. I help to sow. I tell them how to take care of it [the garden], how to harvest it, how to sell it, but they don't give me a peso, not a pesito.’ They [the students] know, they make their own money and use it for what they want. I'm not going to say, ‘they sold so much, a part for them, a part for me’, no, that's for them, they decided this with their teacher (Samuel, PG Int., 02/19).

Armando said that the community was slowly changing the way they saw the school garden project, and that some community members had recently come by to see if the children had any cilantro to sell. Marla explained that in their effort to combat this hegemony, PGs played an important role:

The promoter guides help us because they have the understanding, they are conscious of the fact that the work FPP program is not about coming and giving things, but it is about making change, changes in ideas, changes in ideology and the PGs are helping explain this idea to participants (Marla, Coord., SMR, 09/19).

It is not only paternalism that created challenges for FPP in cultivating a culture of participation. Another challenge for FPP was created by government rural development programs which exported the dominant ideology of what constituted a dignified life. Ezequías explained that FPP installed dry toilets with families because of the lack of water in the region, but the federal government programs that serve this area installed flush toilets for families because it was part of their rural development strategy. Marla added,

They [federal government] sell the idea that a dignified toilet is a water toilet…they arrive with an idea from outside that living well is living with a cement house, when they [Campesinos/as] know and prefer to live in a wooden house, because it is cooler, to have a palm roof because it is cooler for this climate. We are also struggling a little against that, against those ideologies that are being imposed from a place that does not understand the context and we believe we have to implement things that can serve the region, because we know the problems of the region, we know that a water toilet is going to be a focus of infection in the house, but if we use a dry toilet correctly it can be a good solution. So we have come up against this clash of systems, ideology, and beliefs, which has cost us a lot, that is, it has been difficult (Marla, Coord., SMR, 09/19).

Of course, the relationship between FPP and the government programs that serve these communities was complex. A new federal government program called *Sembrando Vida* meaning...
sowing life, has significant ideological alignment with the goals of FPP since they are both promoting the use of agroecological methods of food production. In fact, they have cooperated on several projects in the region. I witnessed Marla explaining to a community group that just because FPP was not a government program did not mean that they had an antagonistic relationship with the government. When I asked her about this later, she explained why it was important to make this relationship clear to communities they work with, as follows:

So now, for example, the proposal for *Sembrando Vida* is that we sit down to dialogue and collaborate together, because in the end what *Sembrando Vida* is proposing, we are already implementing it with some producers, on a small scale but it is the same: agroforestry, agroecological practices, organic fertilizers; that is, we are already implementing it with some, so here the intention is that there is good communication with government programs to strengthen us all and help each other, that's the idea (Marla, Coord., F. Int. 09/19).

I was also told by participants that this new government program *Sembrando Vida* was different from government programs that they are used to because it required *Campesinos/as* to participate in workshops. When I asked one group what they saw as differences between *Sembrando Vida* and the FPP program, Maria A. D. said of *Sembrado Vida*:

> It is more strict. We have to fulfill, comply with everything, we have to sow plants, citrus trees, things like that. We have to keep it all clean… with FPP there is no-one obligating you, it is more, they give you seeds to plant for your own food for your house (Maria, A. D., MR Ley de Fomento, 09/19).

When I asked if they had the chance to choose which plants they wanted to plant in *Sembrando Vida*, Marie Elena explained that “the program comes already designed, it is already known how much of which trees they want to plant. It is not what you want to plant, it is what they say. They give the order and we carry it out...” (Marie Elena, MR Ley de Fomento, 09/19). From this description it is clear that even though *Sembrando Vida* aligns ideologically with the programs of FPP when it comes to promoting sustainable food production practices, it continues to perpetuate the hegemony of paternalism in these communities. The fact that the program comes already
designed and there is no choice in what Campesinos/as plant, points to the top-down nature of
this program. Sembrando Vida paid participants for their participation in meetings and for their
compliance in the work plan set out for them, perpetuating the paternalistic relationship with the
federal government on which one is dependent and to which one is obligated. Sembrando Vida
also had a minimum hectare land ownership criteria for participation, which restricted its benefits
to families who were ejidatarios. As the program Sembrando Vida had just begun, when my most
recent visit to Calakmul was coming to an end, it was too early to judge the full effect this
program would have on communities. It was clear however, that the hegemony of paternalism
perpetuated by top-down government programs would continue to create challenges for FPP in
creating a culture of participation in their goals toward decreasing dependency and increasing
community self-sufficiency.

Summary

Through this exploration of themes, I have attempted to touch on the major themes that
came out of my experiences in Calakmul. In this case it was clear that development of peasant
protagonism among Campesinos/as was cultivated by working with communities toward self-
sufficiency. Key in this practice was supporting PG capacity building, promoting practices that
increased food sovereignty, saved money and generated income for Campesinos/as. The culture
of CaC pedagogy was created in this case through building relationships of trust between
community members and NGO staff, between staff and PGs, between PGs and their group
members and among fellow PGs. The culture of CaC was one of participation, which was
cultivated by PFF by building programs around community identified needs so Campesinos/as
would be intrinsically motivated to join, but also by rewarding participation with support in the
form of capacity building and infrastructure. Conditions that hindered participation included
unharmonious relationships in communities, a hegemony of paternalism and ideological conflicts
between federal government rural development ideologies and NGO goals of self-sufficient communities. Campesinos/as were motivated to change their practices toward agroecology when they saw peers using these practices and witnessed their success in increasing production and reducing risks to their health. Pedagogical practices that influenced Campesinos/as toward adopting agroecological practices included exchanges of experience, promoter guide implementation and validation of practices, and practical workshops focused on practices that taught agroecological efficiency. Once peasants used agroecology practices, they were motivated to take on the role of a promoter guide by their interest in gaining further support from FPP in the form of infrastructure and capacity building in the prevention and treatment of animal diseases. They were also motivated by their enjoyment of the work itself including, learning, helping other community members, sharing experiences with other members of their communities and breaking the routine of housework.

In the following Chapter I will discuss interpretations and implications of these themes as they relate to the research questions of this case study. Limitations and methodological contributions of the study will also be outlined. Finally, recommendations for practice and further research will be offered.
Chapter 6: Discussion and Conclusions

McCune and Sanchez (2018) provide a clear analysis of the divided food sovereignty movement between the work of some NGOs that focus on scaling out agroecological practices through Campesino-a-Campesino (CaC), and La Via Campesina’s political-agroecology training schools. While recognizing that both strategies are needed to spread agroecological practices at a community scale and to advocate for food sovereignty at a global scale, this case provides an example of how an NGO can work toward community self-sufficiency rather than creating short-term dependent programs which are abandoned when the funding runs out. This case also demonstrates that adopting agroecological practices can in itself contribute to building food sovereignty for Indigenous Campesinos/as. Regardless of the fact that FPP is not explicitly involved in the global food sovereignty movement, the communities working with FPP are undeniably contributing to their own food sovereignty by adopting agroecological practices learned through CaC processes. This adds evidence to the assertion that focusing on both training political cadre and spreading agroecological practices contributes positively to the food sovereignty movement. Throughout the remainder of the chapter, I will offer my interpretations and implications of this case study in terms of its contributions to both research and practice. In the course of the discussion, I will address the research questions, the study’s limitations, researcher impact, as well as recommendations for NGOs, the food sovereignty movement and future research.

Interpretations and Implications

The main research question that guided this study was as follows: How does the culture created by CaC pedagogy in practice promote the development of peasant protagonism among Campesinos/as? Four sub-questions included:

a) What sociocultural conditions enable/hinder co-participation in CaC?
b) What pedagogical aspects of CaC influence the adoption of agroecology practices?

c) What social, cultural and political factors motivate Campesino/as to change farming practices toward agroecology?

d) Once Campesinos/as use agroecology practices, what motivates them to share these practices with others by becoming peasant promoters?

In answering the main research question, this case study provides important contributions to the food sovereignty movement by clarifying the processes within CaC pedagogy involved in development of protagonism among Campesinos/as and further, how CaC pedagogy can promote community self-sufficiency. In this case, peasant protagonism fostered in communities contributed to the larger goal of community self-sufficiency. With FPP playing the role of a facilitator, peasant protagonism was cultivated through a process of building relationships, supporting communities with basic infrastructure, capacity building in areas of participants choosing, creating the role of PG, supporting PG personal development, creating organized groups and a process of gradual transfer of responsibility. This was not a linear process, but more organic and iterative, reflecting a need to be attentive to the organic development of groups in each community and how to support their continued development. The principles used in building and supporting CaC networks are key to understanding how CaC pedagogy contributes to peasant protagonism.

NGO as facilitator of CaC. The role of the NGO as the facilitator in building CaC networks and providing much needed infrastructure and capacity building was clearly important to the functioning of CaC pedagogy in this case. In fact, this case also brings to light the lengthy process of building CaC learning networks that facilitate the operation of CaC pedagogy. Although it must be recognized that there is no ‘one pattern’ that fits everywhere, understanding how pedagogical principles work in a particular context is valuable to those who share the goal of
spreading food sovereignty. Studying the principles followed by FPP in their work could lead to improvements in practice of NGOs or social movements working with communities toward self-sufficiency. Important guiding principles followed by this NGO include (a) respect for and promotion of Indigenous languages and culture, (b) focus on relationships and capacity building, (c) creating a culture of participation, (d) focusing on practical knowledge and active learning from peers and, (e) a gradual transfer of responsibility toward self-sufficiency. These principles work through CaC pedagogy to reduce dependence on government assistance, promote community self-reliance, centre participant knowledge, and build PG protagonism. This manifestation of CaC creates a positive cycle which builds toward community self-sufficiency. Figure 16 provides a visual representation of how these principles work through CaC pedagogy in a cyclical way to move communities toward self-sufficiency.

Figure 16: The process of working with communities through CaC toward self-sufficiency

For FPP, the process of building CaC learning networks emerged from their engagement in participatory diagnostic activities in communities. Once they understood community identified
needs, goals and strengths in each context, they built programs based around this information, offering needed infrastructure with applicable capacity building.

All the steps in the iterative process of building CaC learning networks involved creating and nurturing relationships of trust and mutual respect with and among community members. These relationships were cultivated through knowledge of community context, respecting Indigenous culture, sharing experiences among peers, care and continuity. This study indicated that the existence of these relationships was one of the sociocultural conditions that enabled co-participation in CaC. The role of PGs comes to the fore as an important initiator of relationships with community members as well as an ongoing mediator of relationships necessary for co-participation in CaC pedagogy. In supporting PGs in reaching their goals, PG monthly meetings were especially important for building PG confidence and creating supportive relationships among PGs. While sharing their successes and challenges at these meetings, they learned from each other and formed an important peer support system for PG personal development.

**Promoter Guide Role.** Through their engagement in the participatory diagnostic process, FPP built an understanding of each community and recognized a need for a guide, a knowledge keeper, an animator within each community that could also act as a link between organization staff and community members. This research revealed that the role of the PG was that of a conduit for new ideas and agroecological proposals in the CaC knowledge sharing process among peers. This case provides interesting locally developed aspects of the PG role that are worthy of consideration. Naming a promoter, as it is known in CaC literature, as a promoter guide makes clear their role in facilitating community level learning and implementation of agroecological practices. This aspect of the role is aligned with the goals of self-sufficiency since it acknowledges promoters as local experts that community members can go to for guidance. Relevant to rural contexts where communities are remote, this case highlights the proximity of
the promoter guide to their participants as particularly important to their ability to act as a motivator and a guide. The PGs’ knowledge of their community and their relationships with other community members allowed them to understand how, where and when to best share knowledge and ideas with their peers.

Monthly promoter guide meetings also stood out in this case as important to building the confidence of PGs, allowing them to share ideas, successes and discuss problems with other PGs. These meetings also allowed them to develop relationships with other promoters in other communities in their region which then became a PG support network. This support network has the potential to evolve into a network of PGs that facilitate the replication of CaC learning networks in other communities in the region.

Facilitators and CTs working one-on-one with PGs toward their chosen goals helped generate PG confidence needed to exercise conceptual agency (Greeno & Van de Sande, 2007) allowing them to take up leadership roles in their communities. FPP staff accompaniment of PGs as they took on their roles in communities involved a gradual transfer of responsibility through careful facilitation of participatory planning and evaluation, communication during PG meetings and modelling of workshop facilitation. This accompaniment is an example of what self-determination theory calls autonomy supportive teaching (Ryan & Deci, 2009), where PGs experiences and perspectives are acknowledged and they are encouraged to take initiative and direct their own learning. This accompaniment provided opportunity structures for PGs to build agentic resources including competence, self-regulation and self-efficacy (Bandura, 2006) which allowed them avenues for self-fulfillment that may not have been present before. In some cases, FPP had already been successful in encouraging PGs to act independently, as protagonists. In these cases, PGs have begun to work independently as leaders of their groups in organizing activities and exchanges without guidance from their organization. FPP staff proudly gave these
examples as evidence of their program’s success in encouraging self-sufficiency, but also as examples of Campesino/a strength and resilience.

Through inviting PGs to build their capacity in agroecological practices of their choice and encouraging them to become leaders in their communities, FPP was also helping to facilitate the growth of peasant protagonism which, in turn, builds community capacity for self-sufficiency. In other words, their way of facilitating was to accompany community members in working toward their own goals. They took their direction from community goals while keeping in mind the longer term goal of groups becoming self-managing and in turn contributing to the self-sufficiency of their communities. For example, when I asked, Marla, the program coordinator where she felt her team was in relation to their goals, she responded by saying that this was up to each community to decide. She said, they plan to facilitate a participatory reassessment of progress and goals of the program with each community. FPP’s commitment to continuity of engagement through relationships of trust and mutual respect provided a valuable model to learn from. It is worth noting that even during pauses in funding, community group members continued to consider themselves part of the group and PGs understood that FPP remained committed to supporting their community.

As for what motivated PGs to share these practices with others by becoming peasant promoters, PGs spoke of several motivating factors including enjoyment of the work, wanting to help others, enjoying spending time with others and acceptance of a challenge offered. They were also motivated by a desire to continue learning in order to improve their own food production systems. For the PGs I interviewed, the idea of sharing knowledge was a natural thing to do. Two PGs explained that if one did not share knowledge it had less value, indicating that their goal was for the entire community to benefit. Susana told me that her goal was for her whole community to have their pigs fenced in so they would stop causing conflict. Candelaria felt that her success as a
PG made her a fuller person, whose potential was realized, even though she had not had the opportunity to go to school. This indicates an orientation among PGs not only toward self-fulfillment, but also toward sharing knowledge for the betterment of their community. This orientation is important for organizations using CaC pedagogy to consider when looking for agroecology promoters. Particularly important for female promoters were the much appreciated opportunities that the work of PG provided to escape the routine of housework and spend time developing relationships with others in their community and PGs from other communities.

**Indigenous women and pobladores.** In communities in Calakmul, the crucial role of Indigenous women in family subsistence was abundantly clear, including responsibilities for tending backyard birds, pigs, and gardens. The focus of this program on household sources of food, which are generally the responsibilities of women within local cultural gender roles, has the effect of including women as important contributors to decisions around household food production. The inclusion of household food production in this context also effectively includes women in conversations about agroecology. Although women told me that what they do is not agriculture, the food they produced was enormously important for household food security, especially during the drought when families experienced poor harvests of staples such as corn and beans. Thus, if the inclusion of more women is the goal of the food sovereignty movement, extending the conceptual boundaries of agroecology to explicitly include household sources of food production, food processing and preservation, would help to achieve this goal. Although agroecology arguably already includes these important food cultivation practices, visions of staple crops growing in large fields tended by men are stubbornly implicit in contemporary understandings of agriculture. If the transition to agroecology is to include women as leaders, when we see women tending backyard birds, and growing larvae from chicken feces to feed these same chickens, we must recognize that this is also agroecology.
This case demonstrates a way of working with communities that respects cultural gender roles, while still enabling women to build capacity to participate in decision making at the household and community level. As the staff explained, through their participation in capacity building in an area of their choosing, female PGs and female participants developed confidence to voice their opinions and gained the respect of their husbands and other community members, as conduits and keepers of knowledge. Once they were considered as leaders in their community, this gave them the capacity and experience to participate more fully in community level decision making. Over time, this participation has the potential to lead women themselves to challenge what they perceive to be inequalities inherent in cultural gender roles. FPP’s approach reveals an understanding of gender division of labour as a “complex and fluid cooperation in which women and men negotiate over dilemmas and choices” (Heward, 1998, p. 3), where women’s empowerment is enabled through their participation in the planning of the FPP project. This case also suggests a link between Campesina capacity building in agroecological food production and household level self-sufficiency, strengthening the case for recognizing the important role that women can play in moving communities toward food sovereignty.

The inclusive way in which FPP encouraged PGs to carry out their work in their Indigenous language made space for women to participate where they may not have before given their lack of confidence in their Spanish language skills. The inclusion of Indigenous women as PGs would in turn increase the participation of Indigenous women in their groups. This would have the effect of strengthening and reinforcing Indigenous language use among women in communities, which in turn, would increase the likelihood of transmission and reproduction of Indigenous languages and culture in the next generation. FPPs focus on hiring and training local residents with Indigenous language skills as facilitators and community technicians is important in building trust in communities as well as providing role models. These role models are key in
preserving Indigenous language and culture, passing on the knowledge and skills needed to maintain a Campesino/a lifestyle and inspiring a transition toward agroecology. As is consistent with research on role models (Morgenroth, Ryan & Peters, 2015), both male and female role models from local communities are relatable and have domain specific competence, which allows youth and other Campesinos/as to imagine possible future identities.

The personal development experienced by Campesinas through the process of becoming PGs is significant, especially given the fact that this was facilitated with the encouragement of the use of Indigenous languages. For example, after a year of work as volunteer PGs of sustainable food production practices, Indigenous Campesinas see themselves as protagonists in their communities. This is an important outcome for a population who face triple discrimination based on race, gender and class (Sieder & Sierra, 2010). This personal development within the Indigenous Campesino/a lifestyle is significant because dominant narratives of development for women have been criticized by those in the food sovereignty movement for implying a need to increase women’s literacy in the dominant (often colonial) language and a need to leave communities to enter into the capitalist job market. The personal development in this case facilitated women’s leadership role as experts in raising pigs, backyard birds and gardens, and as decision makers within their households.

Also, by encouraging pobladores to participate, FPP opened opportunities to improve household food sovereignty regardless of pobladores’ lack of access to large plots of land for production of staples. This is important given that government run rural development programs continue to have land ownership as a criterion for participation. Given that many local internal ejido regulations also exclude pobladores from participating in various programs (Navarro-Olmedo, et al., 2018), both recent migrant settlers and children of ejidatarios are kept at a disadvantage. Participation of pobladores in FPP programs is especially important given evidence
that within communities in Calakmul there are racial tensions between *ejidatarios mestizos* (mixed race) and Indigenous *pobladores* (Navarro-Olmedo, et al., 2018). Since this case found that community relationships are vital to building CaC networks, encouraging all community members to participate creates the potential for strengthening and building positive community relationships around the common goal of community self-sufficiency.

**What factors motivate peasants to change practices toward agroecology?** This case also provides insight into what motivates *Campesinos/as* who have been using industrial agriculture to adopt agroecology practices and what pedagogical principles and practices facilitate this transition. Among aspects worthy of discussion are exchanges of experience. These are important pedagogical tools in the CaC process which lead to a change in mentality toward agroecological food production practices. In this case, it became clear that food production system choices relate to beliefs and ideologies—agriculture as culture. FPP staff and PGs spoke of a change toward agroecology as a change in the ‘chip’ of the *Campesino/a*, signifying this change as a transformation in a way of thinking and being. The difficulty experienced by FFP in convincing, especially *Campesinos*, to consider agroecology as a viable alternative, is evidence of the entrenched nature of industrial agriculture practices among the *Campesino/a* population in Calakmul. Exchanges of experience were impactful in this transformation because of the influence of time spent learning from and interacting with working agroecology systems, as well as interaction with people who cultivated the systems being observed. These experiences provide opportunities for experiential learning from peers. The hosts of these exchanges become influential role models who validate agroecological practices through example. In line with research on role models, the hosts of the exchanges of experience met the criteria of relatedness and the possession of domain specific knowledge (Morgenroth, Ryan & Peters, 2015) needed to inspire trust of *Campesinos/as* in attendance. This case has shown that these experiences open the
mind of participants to other ways of farming that are possible, through demonstrating their success.

Particularly pertinent to agroecology as a practice, hands-on pedagogical tools of CaC such as workshops and exchanges of experience had the effect of enlarging participants’ concept of what constituted a resource. For example, after a workshop I observed, participants began to consider banana trees as a valuable source of water and organic material for garden beds during the dry season, whereas they previously hadn’t considered them a resource, but let them fall down and dry out, unused. This change in mentality is key to agroecological transition because instead of looking to external inputs or organic material, Campesinos/as began to look around them for ways to create closed cycles. The success of these closed cycles can in turn reduce dependence on external inputs.

The important role of local implementation in validation of practices (both by participants and PGs) was also key in the transformation toward adopting agroecological practices. For example, in this case community interest was stimulated by neighbour curiosity. Neighbours who had implemented agroecological practices in the FPP program had larger gardens, healthier chickens, larger pigs, more cilantro or corn to harvest. Noticing this, neighbours asked how they accomplished this. In response they were invited to learn through participation in a CaC network, thus initiating the process of transition toward agroecology. This case study lends important detail in understanding how cultivating a culture of participation can lead to agroecology transition. FPPs way of facilitating attempts to create a culture of participation, meaning that those willing to participate learn by doing. If one was a participant in the program one was expected to implement the practices promoted by the PG. Implementation was a form of participation that was regarded as a necessary criterion for continued group membership. This participation was rewarded with support in the form of more capacity building, seeds, tools, and/or infrastructure. This culture of
participation was a delicate balance of stimulating both extrinsic and intrinsic motivation of participants that was maintained through good relationships and communication with PGs.

This culture of participation also facilitated the adoption of agroecological practices and led to further participation. If the practices one implemented were successful in improving one’s food production, the implementation had two effects, (a) one gained the experience of seeing the practices work and was thus convinced of their efficacy, and (b) one experienced an increase in food security or food sovereignty due to the efficacy of the practices. These positive outcomes in turn motivated further participation. Whether participants experienced an increase in food security or food sovereignty depended in part on the amount production increased, as well as on the choices of Campesinos/as. As explained in Chapter 4, daily choices were made by Campesinos/as as to whether increases in food production would be used for self-provisioning or, if there was sufficient surplus, be sold to generate income needed to purchase corn during the drought or to pay school fees, for example. Figure 17 illustrates the cyclical nature of learning by doing which cultivates a culture of participation.
Figure 17: Creating a culture of participation

As we saw in this case, if participants did not see a benefit from their participation they did not continue to participate. What each participant understood as a benefit was subjective. Of course, this cycle would also break down if the practices themselves were not successful. This highlights the importance of initially promoting agroecological practices that are low risk, use resources that Campesinos/as have available and show consistent, short term success (Machín Sosa et al., 2013). Once groups are established and become self-managing (as is the goal in this program), practices can be promoted that address the longer term needs identified by each group. As this case demonstrated, this is a delicate cycle which will also break down if there is no continuity of support from the organization either in the form of capacity building or material benefits. This is where the role of PGSs is again important in making clear to their group members that the long-term goal of the program is self-managing groups and community self-sufficiency. FPP did not intend to play the paternalistic role that many community members had become accustomed to from participating in other rural development programs that operated in this region. FPP activities
in this case showed them struggling against the hegemony of paternalism because it encouraged passivity and dependence and limited people’s view of themselves as capable of being self-sufficient.

**What sociocultural conditions hinder co-participation in CaC?** This case illuminates the complex challenges faced by organizations that work with communities toward self-sufficiency. Looking closely at the issue of paternalism and how it effects *Campesinos/as* allows reflection on how the food sovereignty movement can enable *Campesinos/as* to break out of this dependent relationship and move toward self-sufficiency and food sovereignty. Paternalism promotes the idea that Indigenous *Campesinos/as* are objects of ‘development’ in constant need of support, unable to help themselves. The fact that land was given by the government to people as an incentive to migrate to Calakmul constructed paternalistic power relations between government and *Campesinos/as* that are accepted as natural and thus, continually reproduced (Kincheloe & McLaren, 1994). This paternalistic relationships has been deepened by the material realities of poor soil and lack of access to water in Calakmul, which have meant migrants to this area have depended on government subsidies for their survival (Marla, Coord., SMR, 09/19).

In this case, a hegemony of paternalism created a lack of will to participate without extrinsic rewards (material benefits). It also created challenges for PGs in attracting and maintaining participants, and was responsible for misunderstandings around money, leading to resentment within community relationships. How paternalism operates in this case indicates a need to be continually watchful of how global sustainable development goals operate at the community level and what self-defeating side effects their pedagogy might create. Unfortunately, this case study gives evidence that a need for support continues to be answered by various levels of government, and international actors with prepackaged programs which strip *Campesinos/as* of their autonomy to choose (Gronemeyer, 1992) and through this approach, ignore or even deny the
existence of local and/or Indigenous knowledge. In this sense, this study adds a case to the critique of top-down rural development programs as perpetuating colonial relationships with Indigenous peoples of México.

**CaC as a decolonizing pedagogy.** This case shows the potential for CaC pedagogy to be a decolonizing force toward community self-sufficiency and food sovereignty. Not only is the goal of self-sufficiency (and away from dependence on the state) part of the decolonizing project, but the way of reaching this goal is also decolonizing. As Mignolo (2007; 2011) explains, decolonial action changes the terms of the conversation through promoting alternatives to Western, universalist models for knowledge and alternative power relations. CaC pedagogy shifts power relations away from experts in possession of Western knowledge toward fellow Campesinos/as, and away from valuing only abstract universalized knowledge toward valuing practical contextual knowledge. The creation of agricultural knowledge by Campesinos/as could be seen as an example of border thinking, where knowledge emerges from local bodies with experiences of poverty and oppression. The co-creation of knowledge is key in the development of peasant protagonism which in turn, builds capacity for community self-sufficiency. Self-sufficiency through subsistence agriculture, rather than dependence on the state, creates food sovereignty. The goal of supporting Campesinos/as in their chosen lifestyle of subsistence agriculture runs counter to the modernization narrative, which considers all food producers entering the market and being guided by its logic as a natural eventuality (van der Ploeg, 2018). Rejection of this narrative reaffirms the value of peasant labour relations—familial and reciprocal as opposed to wage labour controlled by market logic (Quijano, 2000).

The promotion of agroecology makes CaC decolonizing, since adopting agroecological practices constitutes a turning away from industrial agriculture. When Campesinos/as choose agroecology to reproduce the subsistence lifestyle that has been their custom, they are rejecting
contemporary metanarratives that industrial agriculture is the best way, or the only way to feed the world’s growing population. The increases in production experienced by those implementing agroecology are part of decolonizing practice because they reduce dependence on outside actors and inputs and increase food sovereignty. This reverses the contemporary script of modernity because those who are labelled by ‘more developed’ peoples as poor, helpless and behind in the race toward modernity, are those who do produce their own food, and have always been striving to do so. This in turn strengthens the affirmation that another way of life is possible and desirable to some, despite its material challenges in areas with poor soil and lack of water. By moving toward self-sufficiency Campesinos/as are rejecting the negative identity projected on them and retelling the story of Campesino/a resilience.

Within a decolonizing frame, when promoting the spread of agroecology, it is critical to be attentive to the socio-cultural conditions and pedagogical choices that create social structures around its implementation. The ways in which CaC was implemented in this case can serve as an example for those interested in decolonizing both rural development practices and agricultural extension. The way that CaC was facilitated in this case can be seen as decolonizing in several ways.

Firstly, FPP acknowledged participants’ experiences and knowledge by basing its program development on community goals and staff’s relationships with communities which they began to develop through the initial participatory diagnostic. This laid the groundwork for their consistent treatment of participants as knowledgeable, competent and able to direct their own learning and set their own goals. In terms of decoloniality, this way of facilitating is more of a collaboration which locates knowledge and expertise within communities, rather than with outside experts.
Secondly, CaC workshops and technique demonstrations are located in community, are hands-on, practical in focus and led by peers (PGs) with knowledge of context and experience implementing practices. As, Freire (1970) believed, knowing required a subject’s action in transforming their own reality. The hands-on nature of workshops and the implementation of practices thus combine the action necessary for transforming subjects’ own reality and for building agroecological knowledge. This promotes fellow community members as experts who can facilitate community action without waiting for outside organizations to tell them what to do. This effectively situates communities as central locations of experimentation and innovation, which challenges the contemporary narrative that innovation occurs mainly in scientific laboratories. This becomes more powerful still, if we recognize that agroecology was named as such, by scientists who spent time observing Indigenous peasant agriculture.

The way CaC operates in this case shows a respect for the hybridity of knowledge, where both Indigenous and Western scientific knowledge are respected and used to serve the purposes of food sovereignty. For example, in a workshop on care and nutrition for backyard pigs, Maria explained that she had learned through training with FPP that when you use an anti-parasite treatment you will never kill the entire population, so they will build up immunity to medications, so there was a need to use medication in combination with an organic method using a mix of local herbs. Training for PGs and community technicians are through workshops or exchanges of experience which are led by people with a mix of expertise depending on community identified needs. These people included ethno-veterinarians, veterinarians, agronomists with training in sustainable agriculture techniques and Campesinos with substantial experience as CaC agroecology promoters. According to FPP staff, what they do is make proposals to Campesinos/as with the goal of resolving issues expressed by communities during the diagnostic, but insist that they continue to value Campesinos/as as holders of knowledge and expertise. These
proposals are an invitation to fit new knowledge within the existing frame of Campesino/a lifestyle rather than to replace Campesino/a knowledge with something else. This is a subtle but important distinction. It is the responsibility given to PGs as protagonists that sets these networks apart from other ways of teaching and learning.

In line with FPP’s consistent response to community needs and goals, several PGs expressed that their motivation for involvement in this program was access to expert knowledge, especially in the area of animal husbandry, for the purpose of improving the health of their animals, and thus their own food production. Since vet services are not geographically or economically accessible to these communities, empowering PGs with knowledge to act as guides for animal husbandry in each community facilitates food sovereignty at the community level. For women especially, being able to raise healthy birds and participate in bird vaccination camps led by their local PG means both a source of income to support their families and a source of meat and eggs to reduce their costs.

Lastly, FPP’s explicit long term goal of community self-sufficiency runs against the current of paternalism that works as a hegemonic force in Calakmul. Importantly, the goal of self-sufficiency aligns with the maintenance, and flourishing of the Campesino/a lifestyle and Indigenous language and culture. The Campesinos/as in this case expressed clear priorities of maintaining their lifestyle of subsistence farming, and life in community, rather than entry into the job market and moving to urban centers. Those I met, either came to Calakmul themselves or were brought by their parents from other rural areas in search of land to carry on the peasant lifestyle of their ancestors. A few had even returned from large cities, or work in the U.S.A., to live what they saw as a better life, even with the struggle inherent in it. Male PGs explicitly stated their goal was spreading effective sustainable agricultural practices to the next generation, striving to reproduce Campesino/a lifestyle in a healthy and sustainable way. Indigenous
language and culture are promoted as discussed in the previous section, by encouraging
Indigenous language use in participation and hiring locals with Indigenous language skill and
cultural understanding.

FPP’s way of facilitating the development of self-sufficiency while respecting
Campesino/a lifestyle choices is through capacity building in topics of participant’s choice, based
on the participatory diagnostic, and making their program responsive to changes over time. The
goal of self-sufficiency is also facilitated by relationship building between staff and communities
and the encouragement of group relationships through community organizing of CaC learning
networks. FPP’s recognition that their goals require long term engagement with communities in
order to build capacity for self-sufficiency, shows a deep understanding and empathy for the
history and current situation for communities in Calakmul. Part of their understanding of
community context includes a recognition of the necessity of providing adequate infrastructure as
a precondition for authentic choice in building self-sufficiency. Their way of facilitating shows a
focus on participation, choice and respect for the autonomy of participants. A testament to the
centrality of their goal of community self-sufficiency, FPP staff shared that they felt their work
had value when they heard of groups and CaC networks who had acted independently without
needing their support and shared their stories of success with them after the fact.

Recognizing that the population of Calakmul is one example of the global geographical
marginalization of peasants and other economic migrants toward resource poor areas means that
the accomplishments of FPP in this case can serve as a model for other organizations who work
with these populations toward self-sufficiency. This case shows that FPP as an organization
believes in community capacity for self-sufficiency, despite the material and social challenges
faced by Campesinos/as in communities here.
Methodological Contributions and Limitations

In a cross-cultural study, there is always a risk of misinterpretation of data and misrepresentation of participants. This is especially true when the researcher holds white privilege, as I do, and the participants are racialized minorities, as they were in this study. As a white female body in communities in Calakmul, I was keenly aware of my difference. As Mignolo (2011) explains, because I have a white body, I can never truly understand what it is to be marginalized, as I have never experienced the pain of racism myself. He does, however, contend that one can understand conceptually what it is to be colonized.

Nothing prevents a white body in Western Europe from sensing how coloniality works in non-European bodies. That understanding would be rational and intellectual, not experiential. Therefore, for a white European body to think decolonially means to give (Mignolo, 2011, p. 280).

In an attempt to stop the furthering of colonial habits in ethnographic research methods, I made efforts to give during this research in multiple ways. This giving was not only an attempt to avoid misrepresenting participants, but also to avoid harm and to positively contribute to the lives of study participants. Throughout the research process, I attempted to take practical steps toward the goal of decolonizing research methodologies. Although, always partial, I believe there have been some successes toward this goal. The study was built around seeking relationships of reciprocity with participants and community partners. To this end, I carried out work that was outside of the scope of this study by creating a sistematizacion document, which in turn helped FPP secure funding to replicate the CaC network building process in more communities in Calakmul. Secondly, I included member reflections in the research methodology to help ensure participants were comfortable with the way I planned to represent them. I also foregrounded participant voices in reporting successes and challenges as a way of showing respect for them and elevating their perspectives as valid and important. Throughout the study I took seriously the
responsibility that comes with representing the struggle and resilience of Indigenous Campesinos/as, and thus, was careful to make statements that represented their experiences in the way I had understood them, and actively sought to resolve deficits in my understanding through asking follow-up questions of participants and consulting with cultural insiders. During data collection, I kept an attitude of flexibility which allowed me to respect participants’ time, energy and priorities and adapt to changing circumstances during my time in communities.

This case study provides much needed detail for how to conduct member reflections. When searching for methodological detail on how to conduct member reflections, I was not able to find any examples of how member reflections are conducted in practice. Finding no help, I set about creating my own plan that would fit the context I had become familiar with. As such, the methodological chapter of this study gives one example of how member reflections could be conducted, in the context of small communities of people who have oral competency, but do not have reading skill in the dominant colonial language. This study provides a description of how member reflections sessions were designed, prepared, conducted, and changed during the process and what I believe was accomplished, or not, through their use. I expect these details can provide guidance to other researchers who wish to use this methodological tool. I hope this study can provide an example to other PhD students who are interested in practical steps that can be taken toward the goal of decolonizing research methodologies.

**Collaboration and reflexive elaboration.** I believe my approach allowed participants to interpret and represent their lives and stories, but I would be remiss if I claimed that participants were in complete control of the interpretation and representation of findings. In this aspect, I would say that I fell short of the recommendations of scholars working to decolonize research (Blue Swadener & Mutua, 2014). On a small number of occasions, the participants pointed out errors, or things that were not accurate in my interpretation, but there were no objections made to
the way I had framed the case, or to my voice. In some instances, participants did not seem interested in the study. In other moments, they seemed engaged, but did not have much to say. The authentic dialogue that I was interested in having with participants only occurred with some participants, and only briefly. I believe member reflections served to promote “centering of their [participant] voice and perspective as legitimate, valid and truth” (Howard & Ali, 2016, p. 154), but ultimately, I was the one making the decisions about interpretation and representation of their voices.

The exception was the member reflections session with the key informants, FPP staff. With staff, I believe member reflections acted both as a mirror and as a way to decentre authorship in the direction of the key informants. Throughout the three-hour session, key informants were directing the process, suggesting changes and explaining where I had misunderstood their process. When they hesitated in their suggestions, I reiterated that the point of the exercise was for the documents I had created to be accurate, but also useful to them in their continued work in communities and not just for the purposes of my dissertation. Thus, in this study member reflections tempered risks of misrepresentation, and privileged participants’ knowledge in analysis, and provided what Tracy, (2010) calls opportunities for collaboration and reflexive elaboration. However, I do not believe I was successful in decentering my authorship toward all participants in an authentic way.

I believe this was due in part to the limited amount of time I spent in communities, the differences in culture, language and potentially the power differential between myself and participants. The limited time I spent in communities meant I did not have the time to develop the relationships necessary for authentic dialogue during member reflections with participants. The limited time was partially due to my own family commitments, and the time constraints of the PhD program, but also due to the way that the partner organization operated. FPP developed their
relationships with communities over several years by making many visits to the 16 communities they worked with on various projects. This organization had many projects in various communities in the municipality with very few resources and a small staff of five or six. In an effort to avoid using their limited resources for the purposes of my study, my time with participants was scheduled when the organization was visiting those communities for other purposes such as installation of rain-water collection systems or drinking water treatment plants. This accompaniment had advantages and disadvantages. It served to lend me the trust that the organization had built with the communities, a chance to develop my relationship with staff members and allowed opportunities to observe how they operated in communities. It also gave structure to my visits since FPP was able to advise participants ahead of the visit through their communication with PGs. The disadvantages included that I was confined to the schedule of the staff members and it may have had the effect of limiting what participants shared with me because of the presence of FPP staff members. The second disadvantage was minimal, however, since the staff were not present during interviews with participants and were only present during one of the member reflections sessions, since they often left to take care of other tasks with other community members.

Language. A linguistic limitation was present throughout this study. Although my Spanish is advanced, I did not always understand the nuances of local language, which meant I did not always pick up on social cues in context. Also, during the interviews there were several occasions when a Spanish word in the interview questions was not known to participants, given that Spanish was also their second language. In a few cases, I was able to explain the word using examples or other words, but in several cases I simply moved on to another question when my efforts were not successful, because my own language ability was not sufficient to explain what I meant to ask. This had the effect of limiting the scope of the interviews to what both the
participants and I could understand and explain. On the other hand, in some cases, my lack of ability to understand all the nuances in the present moment had the effect of broadening or deepening the interviews. When I listened to the audio recorded interviews, I realized that I had not understood an answer given by a participant, so I had rephrased the question or asked for clarification. This may have been frustrating for the research participants who may have found me to be obtuse, but it did yield interesting interview data. I attempted to limit the effects of this limitation by audio recording interviews and using native Mexican Spanish speaking transcribers, who were also consulted on the meanings of expressions and local slang. Returning to the field for member reflections and follow-up interviews also had the effect of overcoming this limitation, to a certain extent, since I was able to ask for clarification when the meaning in the transcripts was ambiguous. Member reflections and follow-up interviews also allowed me to confirm or deny my interpretations of the meanings of situations I had observed personally. Even given these strategies to reduce this limitation, my Spanish language ability and that of the participants remained a significant limitation. In hindsight, I should have spent more time and energy actively seeking an Indigenous language translator in each of the languages spoken in the region so as to be more inclusive of those with less Spanish language fluency. This also would have favoured Indigenous languages rather than colonial ones.

**Culture.** Along with language, culture also affected this study. On many occasions my interview questions were met by blank stares. Even if the questions were in simple words, there is a way in which our completely different lifestyles and epistemological understandings of the word could make my questions unintelligible. Let us say, for the purposes of explanation, that if I asked a Canadian urbanite, “What do you grow in your garden and where do you keep your chickens?”, they might stare at me blankly in a similar fashion. A peasant lifestyle is accompanied by a way of seeing the world, as is a modernized urbanized lifestyle. This is why
ethnography is an obvious choice for this study, because it attempts to describe how this cultural group operates, “because the group is not in the mainstream, people may not be familiar with the group, or its ways are so different that readers may not identify with the group” (Creswell, 2013 p. 70). For example, while speaking with a friend on the phone from my hotel room in México, she asked if I was interviewing farmers. I said, no, these are not exactly farmers, as we would think of them in our collective settler Canadian imagination. I found myself explaining that they would be more like what we would call homesteaders in Canada, but they did not choose to step out of a modernized, urban lifestyle as those in North America did, but they have always lived this way, as their ancestors had before them. It is hard for us in our entrenched capitalist ideologies to imagine a peasant lifestyle. Conversely, it may be difficult for those who do not share my lifestyle to understand my questions. Our differing ways of being in the world may have been the reason that the questions I occupy my time trying to answer, are not ones they have thought much about, or make much sense in their context.

This cultural difference in what we believe to be important questions is also a rationale for asking participants to define the purpose of a research project. Although I hoped to be able to do this, it proved unrealistic, and even problematic in some sense. In my experience, Campesinos/as are very busy with the work needed to feed their family, and my sense was that it they would not have the time necessary to define the purposes of a research project. For example, during a member reflections session, when I asked a participant if she had more time to discuss what I had written based on interviews with her and her fellow community members, she said, “well, I haven’t made the tortillas yet and it is getting late.” It seemed as though asking Campesinos/as to define the purpose of my research, would have been in a sense, pushing my purposes on them. It would have also been pushing the idea that research in itself has inherent benefits to participants. It seemed to me that this would be a difficult sell to those who are working to survive on rainfed
agriculture in the middle of a drought. There were more immediate needs to be taken care of. If
you can’t have a garden because your chickens will eat the seeds you plant, you don’t need a
discussion: you need fencing. Those with privilege and the means to buy fencing may have time
for discussions. Combined with the institutional expectations and timelines of PhD dissertations, I
believe that in this case, it made sense for the purposes of the research to be defined by the
researcher. Now that there has been enough rain for the water collection barrels to be filled and
relationships have begun to form between the researcher and the participants, there is a potential
for community defined research in these communities.

Researcher Impact

It was not immediately apparent how my work could contribute meaningfully to the work
of FPP or to the lives of Campesinos/as in Calakmul. As a female with significant experiences in
post-secondary education, I was treated by some as an expert. Since I was introduced as an
educator, I was asked a few times if I was going to give a workshop. In these cases, I responded
that I didn’t know anything, and I was there to learn. My stance as a researcher/learner meant my
contributions took the form of mirroring what I had learned, in a useful format. I recognized that
by participating in this study, whether they were aware of it or not, participants were giving me
the opportunity to reproduce my privilege through career advancement. Given the power
imbalance in this relationship, it would be immoral to take ideas, knowledge, and stories without
giving of myself in return. In recognizing this, I attempted to build relationships of reciprocity
which I hoped would give me the opportunity to give something of value to participants in return
for their time and energy given to my purposes. I made a habit of expressing my gratitude for the
time and effort given in interviews and accompaniment by staff to the communities they work
with. I spent time with staff members constructing water collection systems, helped cook meals
when opportunities arose, and answered questions that participants asked about my life. During
my first visit to Calakmul, I met with the field team coordinator and the general coordinator to ask in what form the results would be of use to their continued work with communities. I agreed to create what they called *sistematisación* documents outlining the approach and the process FPP followed in building and maintaining *CaC* learning networks in communities they worked with.

It was only after I presented the *sistematisación* documents and the case narrative I had planned to read during member reflections that it was clear how my work could contribute to the work of this organization. As we engaged in a detailed review of the documents during the staff member reflections session it became clear that my work was allowing staff to reflect on their process, their accomplishments and what was needed for improvement. While reading my case narrative one staff member consistently chuckled. When I asked him about it, he said that he enjoyed reading the words of participants and how they viewed the program. Both the facilitator and the coordinator said that through my work, they were able to hear the participants’ reflections on the program directly, something they admitted they rarely had a chance to do, explaining that the promoter guides acted as their link to participants since they had many projects and a small staff. After the member reflections session with the key informants, I was reassured that the work I had done for them had been useful and would continue to be useful in helping them to secure funding to continue these programs which support *Campesinos/as* in Calakmul. In this way, my work, indirectly, was a positive contribution to the lives of participants.

In general, my impact on the people participating in this study was one of reflection. This impact was expressed to me mostly in response to my final interview question, which asked participants if there was anything else they would like to share that I had not already asked about. Several study participants expressed that they appreciated that I had come from so far to see the work that they were doing. Marcela said, “Now we have to thank you for remembering us and for coming to visit, for wanting to know everything we are doing, it counts a lot, because not
everyone is interested in all these things we are doing” (Marcela, PG Int. 02/19). Through my investigation, I had given importance and value to their work.

Several participants also expressed that our discussions made them think about the resources they had in a different way. While participating in workshops, women had asked me if I raised animals and what I grew. I told them about my garden and what I grew, the seasons, the limitations and benefits of our climate in the North. I explained to participants that peoples who live in climates with harsh winters, depended on what they could preserve, but today, if they are modernized or urbanized people, they mostly depend on food imports from warmer climates that they buy in the store. In an interview that followed the workshop in Ley de Fomento, two participants noted that my presence had shown them that they have challenges, but they also have a lot of resources, noting that there were many things that could not grow in a Northern climate that they grew all year round. Antonia offered:

> these visits that people from other places make to us, well, maybe we complain, but maybe these people are worse off than us, we don’t know if maybe they are worse off and don’t complain so much. [laughter] They already give us a little strength to say, shut up, better not say anything if you are in glory, right? See the weather, isn’t it a glory? (Antonia, P., Int., 09/19).

Even though this was done jokingly, it was clear that our discussion of the harsh winter where I lived had made her consider the advantages of her climate. This is in no way meant to diminish the difficulty of the lives of *Campesinos/as* in Calakmul, especially when it comes to their lack of access to water. This is meant to highlight how my presence and my interaction with participants caused them to reflect and make unsolicited comments about their reflections. In reciprocity, I was made to reflect on the privilege of eating fresh tomatoes in February, trucked in from México. I wrote:

> Several families in the communities that I visited had relatives, mostly fathers or uncles, who travelled to Canada for 6 months of the year to engage in agricultural labour. Our lives are not as separate as one might think. I eat the fruit and vegetables they pick in
Canada and help pay for the wages they send home to their families. As I wash the fruit and vegetables, I touch where their hand has touched, cultivated and cared for the food that will nourish me and my children. I am in part responsible therefore, or at least connected to the fact that people are away from their families for months at a time. This is privilege. To travel for pleasure, not for work. To eat food without engaging in the labour of production, picked by the unseen hand of migrant farm labour. Is this privilege, or is it loss and dependence? Losing our connection to land and purpose and growing our dependence on our industrial food system. In the winter, I am just as connected to the Mexican people and their soil when I bite into a tomato grown in México. We are of course mutually interdependent, through the flow of food, bodies and capital in the global capitalist market economy, a mutual vulnerability. There is an illusion that this connection is new, but weren’t we always? The water cycle, the carbon cycle, migrant birds, clouds, ocean currents, glaciers. We have moved to cities, embraced the modern lifestyle and let soil and water fall from our daily thoughts, forgetting our deep connection to the earth. As the climate changes, these thoughts are forced back into priority (author field notes, México, 03/2019).

Recommendations

Given that both strategies of scaling out agroecological practices through *Campesino-a-Campesino (CaC)* supported by NGOs and La Via Campesina’s political-agroecology training schools are needed in the food sovereignty movement, a continued analysis of educational practices of both strategies is recommended. Especially relevant are exemplary cases of NGOs whose work leads toward community self-sufficiency and counters the trend of NGOs creating short-term programs that leave communities in the lurch when funding runs out. A continuation of cooperation and communication between NGOs and actors in La Vía Campesina’s political-agroecology training schools is recommended as a way to break down this divide in the food sovereignty movement and move all actors closer to their goals.

The in-depth analysis of *CaC* pedagogy in this case demonstrates the value of supporting the role of NGOs in facilitating the scaling out of agroecology. Especially relevant is how the facilitation by NGOs of *CaC* pedagogy can ensure that the spread of agroecology is also accompanied by movement toward the goals of community self-sufficiency and food-sovereignty. Actors interested in promoting agroecology should give importance to the pedagogy used in its
teaching and learning and how pedagogy creates social structures around its implementation. With this in mind, it is recommended that actors interested in promoting the spread of agroecology consider the use of CaC pedagogy as a way to foster food sovereignty among Campesino/a communities.

For all actors promoting agroecology, it is important to recognize that agroecology originated in the practices of Indigenous peasants in Mesoamerica, and that a re-taking up and further development of these practices by Campesinos/as in various contexts constitutes a re-centering of the value of Indigenous cultivation practices, and a decentering of the absolute authority of Western science, toward a hybrid concept of knowledge. To this end, focusing on how agroecological practices grow and change in context through innovations created by Campesino/a actors moves the centre of innovation out of labs and into the field, in the hands of Campesinos/as. It is also pertinent to remember that CaC as a pedagogy was developed by peasants as a way to spread agroecological practices of peasant agriculture among Campesino/a communities, before these practices were labeled by scientists as ‘agroecology’ (Altieri & Toledo, 2011; Astier, et al., 2017; Holt-Giménez 2006). As such, it is recommended that, wherever possible, CaC pedagogy and agroecology not be separated. Further, if food sovereignty is to be a decolonizing movement, it must have Indigenous resurgence at its core, with inclusion of Indigenous leaders, respect for Indigenous language and culture and the encouragement of programming that evolves organically with the goals of Indigenous communities.

It is also recommended that small-scale household food cultivation and animal husbandry, which are the responsibility of women in some cultural contexts, be explicitly included in the project of spreading agroecology, as a way to include women as leaders in the agroecology transition. In this inclusion, it is important for facilitators to promote the use of Indigenous
languages spoken by women in communities and provide resources to support translation which privileges the Indigenous language speaker.

Training of NGO staff in CaC pedagogy is recommended as a way to lessen the risk of perpetuating the harmful hierarchies of ‘developed’ versus ‘underdeveloped’ (Ziai, 2017) in the practice of sustainable development. To this end, it is important for NGOs and other development agencies to begin their work with participatory diagnostics in communities as a way to keep the goals of community members central in the design of programming, rather than external goals that may not align with community goals or context. This step also implies a recommended focus on building relationships and long-term engagement with communities needed for fostering the community capacity building needed for community self-sufficiency.

Questions worthy of further study that emerged from this case study include the following: How can FPP further the development of community self-sufficiency while federal government rural development programs continue to perpetuate the hegemony of paternalism? How do cultural gender roles influence the relationships formed in CaC networks? How do female PGs see their roles as protagonists manifesting in participation in local governance? How does the ideological tension between parents and male PGs leading youth training in agroecology play out in community relationships and the future choices of youth? How will CaC networks grow and strengthen over the coming years and do they have the potential to influence municipal and state level policies? Do the CaC networks built by FPP have the capacity to be self-perpetuating in their absence?

I hope to continue to maintain a working relationship with FPP and community members to facilitate the investigation of questions about CaC networks in communities in Calakmul that require the development of longer term relationships.
Conclusion

Within the context of a resurgence in the peasant form of agriculture, in both the global South and North, and the growth in popularity of agroecology as an alternative to industrial agriculture, pedagogical questions of how to spread agroecology while furthering the project of food sovereignty become more important. These results of this case study point to CaC pedagogy’s potential to destabilize the structures of development and agricultural education, and thus to create decolonial action by changing who has the power to create goals and lead discourse about what are good farming practices, and what constitutes a dignified life. These investigations have shown how CaC pedagogy manifests in communities to foster peasant protagonism which contributes to a larger goal of community self-sufficiency, including food sovereignty. Through the practice of CaC pedagogy, peasant autonomy can be kept as a priority in efforts to spread agroecological practices.

Although the purpose of this case study was not to generalize based on brief encounters with some Campesinos/as, their successes and struggles have deepened my understanding of how CaC manifests within the socio-cultural context of Calakmul, Campeche in Southern Mexico. What I have learned from this case can guide my further investigation of how other cases of CaC operate in other contexts as well as how this case evolves over time.

It was my intent that this case provide an example for other researchers of what Eve Tuck calls a desire-based approach to research (2009). This study moved away from a deficit-based approach by “focusing not on deficits but on capacities and competencies, including those encompassed by skills and knowledge nurtured in venues beyond the realm of formal education” (Wotherspoon, 2015, p. 79, italics added for emphasis). This case study illuminated positive examples of strength and resilience of Campesinos/as in their struggle to maintain their subsistence lifestyle. Far from romanticizing their lives, my intention in this case was to represent
the complexity of their struggle and hard-won successes, especially in changing climate conditions, increasing occurrence of animal diseases and increasing drought. Through telling the stories of Campesinos/as, I have represented this resilience by showing the joy and laughter Campesinos/as bring to their work and the generosity with which they shared their knowledge with each other and with me.
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Basque Country/Europe.


CAMPESINO-A-CAMPESINO IN SOUTHERN MÉXICO


CAMPESINO-A-CAMPESINO IN SOUTHERN MÉXICO


doi:10.1177/107780040100700401


DOI:10.1111/aeq.12065


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Appendix A: Ethics Approval and Amendment Letters

March 23, 2018

Ms. Roseann Kerr
Ph.D. Candidate
Faculty of Education
Queen's University
Duncan McCullum Hall
511 Union Street West
Kingston, ON, K7L 3N6

GREG Ref #: GEDUC-893-18; TRAQ # 6023210
Title: "GEDUC-893-18 Food for the Future: The role of Campesino-a-Campesino pedagogy among farmers learning agroecology practices in Southern Mexico"

Dear Ms. Kerr:

The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled "GEDUC-893-18 Food for the Future: The role of Campesino-a-Campesino pedagogy among farmers learning agroecology practices in Southern Mexico" for ethical compliance with the Tri-Council Guidelines (TCPS 2 (2014)) and Queen’s ethics polices. In accordance with the Tri-Council Guidelines (Article 6.14) and Standard Operating Procedures (405.001), your project has been cleared for one year. You are reminded of your obligation to submit an annual renewal form prior to the annual renewal due date (access this form at http://www.queensu.ca/traq/signon.html; click on "Events"; under "Create New Event" click on "General Research Ethics Board Annual Renewal/Closure Form for Cleared Studies"). Please note that when your project is completed, you need to submit an Annual Renewal/Closure Form in Romeo/traq indicating that the project is 'completed' so that the file can be closed. This should be submitted at the time of completion; there is no need to wait until the annual renewal due date.

You are reminded of your obligation to advise the GREB of any adverse event(s) that occur during this one year period (access this form at http://www.queensu.ca/traq/signon.html; click on "Events"; under "Create New Event" click on "General Research Ethics Board Adverse Event Form"). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example, you must report changes to the level of risk, applicant characteristics, and implementation of new procedures. To submit an amendment form, access the application by at http://www.queensu.ca/traq/signon.html; click on "Events"; under "Create New Event" click on "General Research Ethics Board Request for the Amendment of Approved Studies". Once submitted, these changes will automatically be sent to the Ethics Coordinator, Ms. Gail Irving, at the Office of Research Services for further review and clearance by the GREB or GREB Chair.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Sincerely,

Joan Stevenson, Ph.D.
Interim Chair
General Research Ethics Board

c: Dr. Rena Uppitis, Supervisor
Dr. Richard Reeve, Chair, Unit REB
Mrs. Erin Rennie, Dept. Admin.
July 15, 2019

Roseann Kerr
Ph.D. Candidate
Faculty of Education
Queen’s University
Duncan McArthur Hall
511 Union Street West
Kingston, ON, K7M 5R7

Dear Kerr:

RE: Amendment for your study entitled: GEDUC-893-18 Food for the Future: The role of Campesino-a-Campesino pedagogy among farmers learning agroecology practices in Southern Mexico; TRAQ # 6023210

Thank you for submitting your amendment requesting the following change:

1) To name the community organization when reporting the results of the study.

By this letter, you have ethics approval for this change.

Good luck with your research.

Sincerely,

Chair, General Research Ethics Board (GREB)
Professor Dean A. Tripp, PhD
Departments of Psychology, Anesthesiology & Urology Queen’s University

c.: Dr. Rena Upitis, Supervisor
August 08, 2019

Roseann Kerr  
Ph.D. Candidate  
Faculty of Education  
Queen's University  
Duncan McArthur Hall  
511 Union Street West  
Kingston, ON, K7L 3N6

Dear Roseann:

RE: Amendment for your study entitled: GEDUC-893-18 Food for the Future: The role of Campesino-a-Campesino pedagogy among farmers learning agroecology practices in Southern Mexico; TRAQ #6023210

Thank you for submitting your amendment requesting the following changes:

1) To add a Consent Form for the use of still photographs;
2) Consent Form for Use of Still Photographs (v. 2019/07/31).

By this letter, you have ethics approval for these changes.

Good luck with your research.

Sincerely,

Chair, General Research Ethics Board (GREB)  
Professor Dean A. Trupp, PhD  
Departments of Psychology, Anesthesiology & Urology Queen’s University  

c.: Dr. Rena Uptitis, Supervisor
Appendix B: LOI/Consent, Key Informant Interviews

Study Title: Food for the Future: The role of Campesino-a-Campesino pedagogy among farmers learning agroecology practices in rural Southern México.
Study Dates: September 2018- December 31, 2019
Name of Student Researcher: Roseann (Rosie) Kerr, Faculty of Education, Queen’s University
Name of Supervisor: Dr. Rena Upitis, Queen’s University

I am asking promoters and facilitators to take part in a research study examining the farmer-to-farmer method of learning agroecology. The purpose of this study is to investigate why farmer-to-farmer pedagogy has been an important method for increasing adoption of sustainable agricultural practices. If you agree to take part, I will interview you about your experiences with the farmer-to-farmer method of learning agroecology at a time and in a place that works well for you. The interview will be approximately 1 hour long. The interview will be audio-recorded and later transcribed onto paper and translated into English. Since Spanish is not my mother tongue, and I am not from México, there is a risk that I might misunderstand your language and culture. To avoid the risk of misrepresentation, at a later date, I will discuss this interview with you and check that you are ok with everything that I plan to include in my study before it is published. While there are no direct benefits to you as a participant, study results will help inform organizations and governments as to how farmer-to-farmer method of learning agroecology benefits farmers, and these results may have positive impact on your community.

There is no obligation for you to take part in this study. You don’t have to answer any questions you don’t want to. You can stop participating at any time without penalty. You may withdraw from the study up until December 31, 2019 by contacting me at r.kerr@queensu.ca or by contacting (name of community representative), (contact information).

I will keep your data securely for at least five years after the study is published. Your confidentiality will be protected to the extent possible by replacing your name with a pseudonym for all data and in all publications, and by ensuring that other identifying characteristics are not revealed. For example, the name of the organization and/or the name of the community will not be known to the public. Other than me, only a transcriber and a translator who have signed a Confidentiality Agreement will have access to any of the data. The Queen’s University General Research Ethics Board (GREB) may access your data for quality assurance purposes. There is a risk that your identity may be revealed to those who read the study based on the personal details that you share. If taking part in this study poses a risk to your safety or wellbeing, please let me know and I will connect you with a community elder who will act as your advocate.

On the other hand, if you would like me to use your name when I talk about this work, you may choose that option. You indicate that I can use your identity in my reporting of the results of this study by checking the box beside the sentence “I am comfortable with having you use my real name.”

I hope to publish the results of this study in a book, academic journals and present them at international conferences. I will include quotes from some of our interviews and conversations when presenting my findings. However, if you would like to keep your identity confidential, I will never include your name with the quotes, and I will do my best to make sure quotes do not
include information that could indirectly identify you. During our time together, please let me know if you say anything you do not want me to quote.

If you have any ethics concerns please contact the General Research Ethics Board (GREB) at 1-844-535-2988 (Toll free in North America) or chair.GREB@queensu.ca. Call 1-613-533-2988 if outside North America. Please note that GREB communicates in English only.

If you have any questions about the research, please contact my supervisor directly by email rena.upitis@queensu.ca or phone 613-533-6212 or through (name)(phone number), your community representative.

This Letter of Information provides you with the details to help you make an informed choice. All your questions should be answered to your satisfaction before you decide whether or not to participate in this research study. Keep one copy of the Letter of Information for your records and return one copy to the researcher, Roseann (Rosie) Kerr.

By signing below, you verify you have read and understood the content of this Letter of Information/Consent Form and all of your questions have been answered.

Name of Participant: ___________________________________

I consent to being observed:   Yes    No

Check one of the options below:

I would not like my name to be used:
OR
I am comfortable with having you use my real name:

Signature:____________________________________________

Date: ________________________________________________

You have not waived any legal rights by consenting to participate in this study.
Appendix C: LOI/Consent, Observation

Study Title: Food for the Future: The role of Campesino-a-Campesino among farmers learning agroecology practices in rural Southern México.
Study Dates: September 2018-December 31, 2019
Name of Student Researcher: Roseann (Rosie) Kerr, Faculty of Education, Queen’s University
Name of Supervisor: Dr. Rena Upitis, Queen’s University

I am asking farmers to take part in a research study examining experiences of farmers who participate in the farmer-to-farmer method of learning agroecology. The purpose of this study is to investigate why farmer-to-farmer pedagogy has been important for increasing adoption of sustainable agricultural practices. If you agree to take part, I will interact with you in your community for several weeks. I will observe during learning activities, and, write notes on our conversations about your experiences learning agroecology. Since Spanish is not my mother tongue, and I am not from México, there is a risk that I might misunderstand your language and culture. To avoid the risk of misrepresentation, at a later date, I will discuss my observations with you and check that you are ok with everything that I plan to include in my study before it is published.

While there are no direct benefits to you as a participant, study results will help inform organizations and governments as to how farmer to farmer method of learning agroecology benefits farmers, and these results may have positive impact on your community.

There is no obligation for you to take part in this study. You don’t have to answer any questions you don’t want to. You can stop participating at any time without penalty. You may withdraw from the study up until December 31, 2019 by contacting me at r.kerr@queensu.ca or by contacting (name of community representative), (contact information).

I will keep your data securely for at least five years after the study is published. Your confidentiality will be protected to the extent possible by replacing your name with a pseudonym for all data and in all publications, and by ensuring that other identifying characteristics are not revealed. For example, the name of the organization and/or the name of the community will not be known to the public. Other than me, only a transcriber and a translator who have signed a Confidentiality Agreement will have access to any of the data. The Queen’s University General Research Ethics Board (GREB) may access your data for quality assurance purposes. There is a risk that your identity may be revealed to those who read the study based on the personal details that you share. If taking part in this study poses a risk to your safety or wellbeing, please let me know and I will connect you with a community elder who will act as your advocate.

On the other hand, if you would like me to use your name when I talk about this work, you may choose that option. You indicate that I can use your identity in my reporting of the results of this study by checking the box beside the sentence “I am comfortable with having you use my real name.”

I hope to publish the results of this study in a book, academic journals and present them at international conferences. I will include quotes from some of our interviews and conversations when presenting my findings. However, if you would like to keep your identity confidential, I
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will never include your name with the quotes, and I will do my best to make sure quotes do not include information that could indirectly identify you. During our time together, please let me know if you say anything you do not want me to quote.

If you have any ethics concerns please contact the General Research Ethics Board (GREB) at 1-844-535-2988 (Toll free in North America) or chair.GREB@queensu.ca. Call 1-613-533-2988 if outside North America. Please note that GREB communicates in English only.

If you have any questions about the research, please contact my supervisor directly by email rena.upitis@queensu.ca or phone 613-533-6212 or through (name)(phone number), your community representative.

This Letter of Information provides you with the details to help you make an informed choice. All your questions should be answered to your satisfaction before you decide whether or not to participate in this research study. Keep one copy of the Letter of Information for your records and return one copy to the researcher, Roseann (Rosie) Kerr.

By signing below, you verify you have read and understood the content of this Letter of Information/Consent Form and all of your questions have been answered.

Name of Participant: ____________________________________________

I consent to being observed: Yes No

Check one of the options below:

I would not like my name to be used:
OR I am comfortable with having you use my real name:

Signature: ______________________________________________________

Date: __________________________________________________________

You have not waived any legal rights by consenting to participate in this study.
Appendix D: LOI/Consent, Participant Interviews

Study Title: Food for the Future: The role of Campesino-a-Campesino pedagogy among farmers learning agroecology practices in rural Southern México.
Study Dates: September 2018 - December 31, 2019
Name of Student Researcher: Roseann (Rosie) Kerr, Faculty of Education, Queen’s University
Name of Supervisor: Dr. Rena Upitis, Queen’s University

I am asking farmers to take part in a research study examining experiences of farmers who participate in the farmer-to-farmer method of learning agroecology. The purpose of this study is to investigate why farmer-to-farmer pedagogy has been an important method for increasing adoption of sustainable agricultural practices. If you agree to take part, I will interview you about your experiences learning agroecology at a time and in a place that works well for you. The interview will be approximately 1 hour long. The interview will be audio-recorded and later transcribed onto paper and translated into English. Since Spanish is not my mother tongue, and I am not from México, there is a risk that I might misunderstand your language and culture. To avoid the risk of misrepresentation, I will return to your community, at a later date, to discuss this interview and my observations with you and check that you are ok with everything that I plan to include in my study.

While there are no direct benefits to you as a participant, study results will help inform organizations and governments as to how farmer to farmer method of learning agroecology benefits farmers, and these results may have a positive impact on your community.

There is no obligation for you to take part in this study. You don’t have to answer any questions you don’t want to. You can stop participating at any time without penalty. You may withdraw from the study up until December 31, 2019 by contacting me at r.kerr@queensu.ca or by contacting (name of community representative), (contact information).

I will keep your data securely for at least five years after the study is published. Your confidentiality will be protected to the extent possible by replacing your name with a pseudonym for all data and in all publications, and by ensuring that other identifying characteristics are not revealed. For example, the name of the organization and/or the name of the community will not be known to the public. Other than me, only a transcriber and a translator who have signed a Confidentiality Agreement will have access to any of the data. The Queen’s University General Research Ethics Board (GREB) may access your data for quality assurance purposes. There is a risk that your identity may be revealed to those who read the study based on the personal details that you share. If taking part in this study poses a risk to your safety or wellbeing, please let me know and I will connect you with a community elder who will act as your advocate.

On the other hand, if you would like me to use your name when I talk about this work, you may choose that option. You indicate that I can use your identity in my reporting of the results of this study by checking the box beside the sentence “I am comfortable with having you use my real name.”

I hope to publish the results of this study in a book, academic journals and present them at international conferences. I will include quotes from some of our interviews and conversations.
when presenting my findings. However, if you would like to keep your identity confidential, I
ever include your name with the quotes, and I will do my best to make sure quotes do not
include information that could indirectly identify you. During our time together, please let me
know if you say anything you do not want me to quote.

If you have any ethics concerns please contact the General Research Ethics Board (GREB) at 1-
844-535-2988 (Toll free in North America) or chair.GREB@queensu.ca. Call 1-613-533-2988 if
outside North America. Please note that GREB communicates in English only

If you have any questions about the research, please contact my supervisor directly by email
rena.upitis@queensu.ca or phone 613-533-6212 or through (name)(phone number), your
community representative.

This Letter of Information provides you with the details to help you make an informed choice.
All your questions should be answered to your satisfaction before you decide whether or not to
participate in this research study. Keep one copy of the Letter of Information for your records and
return one copy to the researcher, Roseann (Rosie) Kerr.

By signing below, you verify you have read and understood the content of this Letter of
Information/Consent Form and all of your questions have been answered.

Name of Participant: ___________________________________

I consent to being observed:   Yes    No

Check one of the options below:

I would not like my name to be used:
OR
I am comfortable with having you use my real name:

Signature: ____________________________________________

Date: ____________________________________________

You have not waived any legal rights by consenting to participate in this study.
Appendix E: Consent Form for the Use of Still Photographs

I agree to allow ROSEANN (ROSIE) KERR to use photographs of me and/or my work that she collects as part of her research on: The role of Campesino-a-Campesino among Campesinos/as learning agroecology practices in rural Southern México, for one of more of the following purposes:

1) Publication in a Journal or Book   Signature:____________________________
2) Demonstration at a Conference   Signature:____________________________
3) Demonstration on a Website   Signature:____________________________

Date:____________________________

I would like my name to be associated with my photographed image

I do not want my name to be associated with my photographed image

I understand that even if my name is not associated with my photographed image, that I may be identified through the images. I also understand that I may, on any occasion, refuse permission to have myself and/or my work photographed and that I may, nevertheless, continue to be part of this study. I have signed two copies of this consent form and kept one for my records.

Printed Name:

Signature

Date:
Appendix F: Sample Interview Questions for Campesinos/as

1. How long have you and/or your family been farming/raising pigs, birds/had gardens?
2. How long have you lived in this community?
3. What motivated you to become involved with the FPP group with [PG name]?
4. Can you describe the process of learning that you went through with this group?
5. Have you changed your practices since your involvement? If so, in what way?
6. How have agroecology practices changed your production, if at all?
7. Have the practices you tried been successful? Have they resulted in increases in production?
8. Has your life changed since becoming involved with this project? Can you offer an example?
9. What motivates you to continue participating in this group?
10. How would you characterize your relationship with the PG?
11. What has been the most important learning that you have gained through this experience?
12. How do you relate to other members of the group?
13. Do you feel comfortable speaking in this group, or sharing concerns or voicing opinions?
14. Have you shared any of your own knowledge in this group?
15. Have you done any experiments with new practices? Can you offer an example?
16. Have your experiences with this group changed the way you see your land?
17. Have your experiences change the way you see yourself?
18. Have your experiences change the way you see your community?
19. What does autonomy/self-sufficiency mean to you?
Appendix G: Sample Interview Questions for Promoter Guides

1. How long have you and/or your family been farming/raising pigs, birds/had gardens?
2. How long have you lived in this community?
3. How long have you been a promoter guide in this community?
4. What motivates you to engage in this work?
5. Can you describe the process through which you became a promoter guide?
6. How did you begin to attract participants?
7. Would you say that there is a sense of belonging in this group? Why, or why not?
8. What do you think motivates participants to continue in this group?
9. What responsibilities do group members have?
10. Can you describe the role of promoter guide as you see it?
11. Can you describe some of the challenges you have encountered?
12. Can you describe some of the successes you have had?
13. Have your experiences changed the way you view other members of your community?
   a. If so, how?
   b. If not, why has it not changed.
14. Do you consider yourself as a protagonist?
   a. Have you seen your group members developing protagonism?
15. Would you say the process of learning through this project is responsible for this development? If so why? If not, why not?
16. What about the capacity building process you went through with FPP do you think is important?
   a. Is there anything that you would change about it?
Appendix H: Sample Interview Questions for Key Informants

1. How long have you been doing this type of work?

2. How long have you lived in this area?

3. Do you also have a farm or property where you put into practice what you are promoting?

4. What motivates you to engage in this work?

5. What are your goals or objectives in this work?

6. What are your responsibilities in this program?

7. Could you describe some successes/challenges that you have had?

8. Through this program, do you feel that you have succeeded in resolving some of the challenges faced by communities that you learned of during the community diagnostic?

9. How were promoter guides selected? Could you describe the process?

10. Could you describe the process of learning that takes place in communities you work with?

   How do you initially attract participants? How many workshops have you facilitated?

11. Which aspects of the capacity building process seem the most important to you?

12. What do you believe motivates promoter guides to do this work?

13. What are the responsibilities of a promoter guide?

14. Do you believe that the fact that the promoter guides and the members are members of the same community is important for the learning process?

   a. What about whether or not they are members of the same cultural group?

15. Have you seen participants in this program developing protagonism? Autonomy/self-sufficiency?

16. Could you give some examples of experimentation or innovation you have seen from participants in this program?

17. What plans are there to continue to support community groups participating in this program?
Appendix I: Confidentiality Agreement

Project Title: Food for the Future: The role of Campesino-a-Campesino pedagogy in the development of peasant protagonism in farmers learning agroecology practices in Southern México.

Researcher: Roseann (Rosie) Kerr

I ______________________________ have read and retained the Letters of Information concerning the research project: Food for the Future: The role of Campesino-a-Campesino pedagogy in the development of peasant protagonism in farmers learning agroecology practices in Southern México.

I understand that maintaining confidentiality means that: **I agree not to reveal in any way to any person other than the researcher, supervisor and committee members, data gathered for the study by means of my services as a Research Assistant and/or Transcriber/Translator.** I will comply with the requirements for confidentiality.

Upon the termination of the work assigned by Roseann Kerr, I will return all confidential information and project materials to Roseann Kerr. I will permanently delete copies from any electronic devices used for the purposes of completing the assigned tasks.

Identification and Signature Indicating Agreement

Name: __________________________________________

Email: __________________________________________

Telephone: _________________________________

Mailing Address:
_________________________________________________

Signature: __________________________________________

Contact Information:
Questions about this agreement or the study may be directed to:
Roseann Kerr, Faculty of Education, Queen’s University, Kingston, ON K7L 3N6
Tel: 613-812-3013
Email: r.kerr@queensu.ca

If you have any ethics concerns please contact the General Research Ethics Board (GREB) at 1-844-535-2988 (Toll free in North America) or chair.GREB@queensu.ca.
### Appendix J: Codebook with Descriptions

<table>
<thead>
<tr>
<th>Code Name</th>
<th>Description</th>
<th>Files</th>
<th># Ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Expert Knowledge</td>
<td>Motivation of participants who don’t normally have access to vets etc.</td>
<td>6</td>
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<tr>
<td>Access to land &amp; Work</td>
<td>Differences in status and land ownership change Campesinos access to land &amp; work</td>
<td>5</td>
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</tr>
<tr>
<td>adapting to local conditions</td>
<td></td>
<td>13</td>
<td>14</td>
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<tr>
<td>Antecedent Conditions</td>
<td>What things were like before the program</td>
<td>14</td>
<td>21</td>
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<tr>
<td><em>Autoconsumo</em></td>
<td>Self-provisioning, food that is raised/grown is for family consumption first</td>
<td>14</td>
<td>19</td>
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<tr>
<td>Autonomy/self sufficiency</td>
<td>Self-sufficiency is used more by participants than autonomy</td>
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<td>37</td>
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<tr>
<td>Belonging</td>
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<tr>
<td>Campesino Lifestyle</td>
<td>Details explaining what characterizes this lifestyle</td>
<td>22</td>
<td>37</td>
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<tr>
<td>Celebration</td>
<td>Children’s motivation to grow a garden, raise money for their party</td>
<td>3</td>
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<tr>
<td>Change in Mentality</td>
<td>Theme: change in ways of thinking about things</td>
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<tr>
<td>Choice to work with Children</td>
<td>Reasons male PGs chose to work with children or youth</td>
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<td>5</td>
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<tr>
<td>Clash of Ideologies</td>
<td>Conflicting ideologies</td>
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<tr>
<td>Climate</td>
<td>Weather, soil, geography, water etc.</td>
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<tr>
<td>commitment</td>
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<td>4</td>
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<tr>
<td>communication</td>
<td></td>
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<tr>
<td>community relationships</td>
<td>Either relationships within communities, or FPP relationships with communities</td>
<td>16</td>
<td>28</td>
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<tr>
<td>Continuity</td>
<td>Consistency of engagement</td>
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<td><em>Convivencia</em></td>
<td>Sharing experiences together</td>
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<td>Cultural Differences</td>
<td>Differences between Indigenous cultures who have migrated to the region</td>
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<td>Cultural Gender Roles</td>
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<td>Culture of Participation</td>
<td>Cultivating a participatory practice in community</td>
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<tr>
<td><em>desaprovecho</em></td>
<td>When someone doesn’t take advantage of the resources they have</td>
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<tr>
<td>diversifying feed with local sources</td>
<td>Animal feed (rather than buying commercial feed)</td>
<td>7</td>
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<tr>
<td>Education Level</td>
<td>Years of schooling or literacy in Spanish</td>
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<td>efficiency-agroecology</td>
<td>Describing practices that create a closed cycle, such as manure used to grow plants for feeding the animals</td>
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<td>Exchanges of Experience</td>
<td>When FPP takes Campesinos to another community or state to learn and see practices being put into place</td>
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<td>expanding ideas of what is possible</td>
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<td>Experimentation-Validation of</td>
<td>Stories of PG testing out practices to see if they work</td>
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<td>Code Name</td>
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<td>practices</td>
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<td>Facilitation-gradual transfer of</td>
<td>Staff style of facilitation that lets PG slowing take on more responsibility in their role, usually</td>
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<td>Responsibility</td>
<td>involves support, or accompaniment</td>
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<td>Food Security</td>
<td>Having more food to feed the family</td>
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<td>Generate Income</td>
<td>Any comment about an increase in availability of money to help with costs</td>
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<td>How these ‘programs’ have operated in the past</td>
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<td>gratitude</td>
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<td>group building dynamics</td>
<td>Facilitation techniques for promoter guides or need for training to increase their facilitation skills</td>
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<td>group management</td>
<td>Community group management</td>
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<td>guide</td>
<td>PG role, answering questions, consulting about problems or decisions</td>
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<td>health</td>
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<td>PG motivation</td>
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<td>home visits</td>
<td>supervising work, distribution of material benefits, spending time together</td>
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<td>Putting what is learned into practice</td>
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<td>Including various community members in training that staff and PG are involved in</td>
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<td>Corn production in <em>parcelas</em></td>
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<td>Reproduction of the Campesino lifestyle in the next generation</td>
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<td>Who are considered holders of knowledge</td>
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<td>Knowledge of Context</td>
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<td>Lack of Water</td>
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<td>learning as success-intangible benefit</td>
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<td>Learning by doing</td>
<td>When implementing the practices that are taught increases food security or other improvement in participants lives</td>
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<td>life improvement through implementing practices</td>
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<td>“you never stop learning in life”</td>
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<td>Comments about how the area is marginal (access to resources, bad soil etc.)</td>
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<td>Milpa</td>
<td>Growing corn, squash and beans together in polyculture</td>
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<td>Misunderstandings around Money</td>
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<td>Motivation to learn</td>
<td>Desire to keep learning</td>
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<td>People's interest being peeked by seeing neighbours implementing practices</td>
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<td>organized group</td>
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<td>Pace of Change</td>
<td>Seasonal/growth cycles effect how quickly practices can be observed to be ‘successful’</td>
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<td>Participant Goals</td>
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<td>Participant Motivation</td>
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<tr>
<td>Participant Responsibility</td>
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<td>participatory planning &amp; evaluation</td>
<td>PG and community involved with Staff in planning and evaluation</td>
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<td>Paternalism</td>
<td>Government as father, government gives, government provides</td>
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<td>PESA</td>
<td>Food Security program that was around before FPP</td>
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<td>PG Capacity Building</td>
<td>The steps in their development, training etc.</td>
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<td>PG-PG Relationship</td>
<td>Especially time spent at PG meetings and doing work together on exchanges</td>
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<td>PG-Staff Relationship</td>
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<td>Prevention of Animal Sicknesses</td>
<td>Examples of when FPP staff mentioned prioritized community needs, or participants noticed it.</td>
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<td>Examples of when FPP staff mentioned prioritized community needs, or participants noticed it.</td>
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<td>Production System Management</td>
<td>Examples of when FPP staff mentioned prioritized community needs, or participants noticed it.</td>
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<td>Program Incription</td>
<td>How one becomes a participant</td>
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<td>Program pace</td>
<td>At what pace the program progresses and participants receive infrastructure benefits</td>
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<td>Promotores Comunitarios</td>
<td>Before PG, they were self-selected volunteers (3) in each community who helped do a census and to distribute materials for building infrastructure</td>
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<td>Protagonism</td>
<td>People seeing themselves as protagonists, or taking initiative, self-organizing, self-management</td>
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<td>Reflexive notes</td>
<td>My own thoughts about happenings</td>
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<td>10</td>
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<td>Relationship to land</td>
<td>Examples of when FPP staff mentioned prioritized community needs, or participants noticed it.</td>
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<td>Relationships of Trust &amp; Respect</td>
<td>Examples of when FPP staff mentioned prioritized community needs, or participants noticed it.</td>
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<td>Researcher effect</td>
<td>Any mention of my presence or influence</td>
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<td>Examples of when FPP staff mentioned prioritized community needs, or participants noticed it.</td>
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<tr>
<td>Seeing is Believing</td>
<td>Proof is in the pudding, seeing practices working is what convinces people to try</td>
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<td>15</td>
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<td>Sembrando Vida</td>
<td>A new federal government program operating in the region</td>
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<td>7</td>
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<tr>
<td>sharing knowledge-PG pedagogy</td>
<td>How PG share knowledge with participants in their groups</td>
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<td>Sister Organizations</td>
<td>FPP cooperated with many other organizations to help their program be successful</td>
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<tr>
<td>soil rejuvenation</td>
<td>Compost, green manure, feeding the soil, etc.</td>
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<td>Examples of when FPP staff mentioned prioritized community needs, or participants noticed it.</td>
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<td>Staff Motivation</td>
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<td>Struggle Against Suffering-Need for support</td>
<td>Examples of when FPP staff mentioned prioritized community needs, or participants noticed it.</td>
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<td>support from spouse</td>
<td>Examples of when FPP staff mentioned prioritized community needs, or participants noticed it.</td>
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<td>Tecnico Role</td>
<td>Role of the Community technician</td>
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<td>waste of time-worth the effort</td>
<td>Equation that is balanced, PG convince the participants, some don’t think it is worth the effort to participate</td>
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<td>what are you going to give me</td>
<td>Attitude encountered by PG and staff, as a result of community members being accustomed to paternalism</td>
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<tr>
<td>Work Ethic</td>
<td>Staff, care, long hours, buy-in, investment of mental energy</td>
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<td>3</td>
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</tbody>
</table>