

**Imagining Alternative Agro-Food Systems in Mexico: A Case Study on Food
Sovereignty and the Traspatio Oaxaqueño Initiative**

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ABSTRACT

IMAGINING ALTERNATIVE FOOD SYSTEMS IN MEXICO: A CASE STUDY ON THE FOOD SOVEREIGNTY PARADIGM AND THE TRASPATIO OAXAQUEÑO INITIATIVE

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The transnational network *La Vía Campesina* (LVC) coined the term ‘food sovereignty’, which has been appropriated by many actors seeking alternatives to the neoliberal food regime. *Traspatio Oaxaqueño* (TO) is a small initiative seeking to revitalize backyard agriculture and the role of women in local food systems. While TO leaders do not explicitly claim to be pursuing food sovereignty, the initiative promotes some of its key principles: (1) the empowerment of women from economically vulnerable families, by increasing their access to productive resources; (2) the preservation of the right to healthy and culturally appropriate food; and (3) the use of ecologically, socially and economically sustainable methods. Despite the fact that the initiative does not deeply challenge the neoliberal food regime, it contributes to the collective organizing and politicization of marginalized actors, allowing them to gain greater autonomy and to eventually reclaim control over food systems.

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*This thesis is dedicated to my dad.
You are in my heart and soul.*

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List of Abbreviations

CCC – *Central Campesina Cardenista*

CONEVAL – *Consejo Nacional de Evaluación de la Política de Desarrollo Social* (National Council for the Evaluation of Social Development Policy)

COSPT – *Consejo Oaxaqueño del Sistema de Producción de Traspatio* (Oaxacan Council for the Traspatio Production System)

COVORPA – *Comité de Voluntarios para la Reforestación y Protección del Medio Ambiente* (Volunteer Committee for the Reforestation and Protection of the Environment)

FAO – Food and Agriculture Organization

IAASTD – International Assessment of Agricultural Science and Technology for Development

INDESOL – *Instituto Nacional de Desarrollo Social* (National Institute of Social Development)

LVC – *La Vía Campesina*

PRD – *Partido de la Revolución Democrática* (Democratic Revolution Party)

PROCAMPO - *Programa de Apoyo al Ingreso Agropecuario* (Program of Support to Agricultural and Fishing Revenues)

PROCEDE - *Programa de Certificación de Derechos Ejidales y Titulación de Solares Urbanos* (Program for the Certification of Ejidal Rights and Urban Land Titles)

SAGARPA - *Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación* (Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food)

SEDESOL - *Secretaría de Desarrollo Social* (Ministry of Social Development)

SL – Sustainable Livelihoods

TO – *Traspatio Oaxaqueño*

UCO – *Union Campesina Oaxaqueña* (Oaxacan Peasant Union)

UN – United Nations

UNDP – United Nations Development Programme

USAID – United States Agency for International Development

Chapter 1: Introduction

1.1 Research Problem

Profound mutations have been observed in food systems around the world since the industrial revolution, which took place during the 18th and 19th centuries. The period following the Second World War is particularly important, as technological strides led to the creation of increasingly globalized systems and open-market economies (Rastoin, 2008). The technologies (modern or high yielding crop varieties) put forth during the green revolution, highly dependent on industrial inputs and controlled irrigation, heavily affected the distribution and size of farms around the world, smallholders being disadvantaged by their lack of economic power (Rosset, Collins and Lappé, 2000). The historic shifts in the global political economy that were observed during the Cold War era further contributed to the liberalization of trade and investment rules, increasing the competition to which farmers are exposed. Furthermore, neoliberal policies facilitated the movements across borders and prescribed a set of reforms and measures, namely cuts in public spending, reduction of social services, privatization of government services and industrial self-regulation (Andrée, Ayres, Bosia and Massicotte, 2014a). This laid the ground for what has now become the neoliberal food regime, as defined by McMichael (2009, to be discussed later).

Towards the end of the 20th century, the growing world population, rising incomes and increasing consumption of animal products, particularly in developing countries such as China, became additional concerns that shaped the way the food system was developed (Peters, Bills, Wilkins and Fick, 2008; McMichael, 2009). It has however become evident in the past few years that the criteria shaping food production need to be revised, as factors such as climate change, energy prices and loss of fertile agricultural land enter the food equation (Peters et al., 2008). It is in the global South that the impacts have been most immediately felt, where neoliberal policies, food dumping and agricultural development favoring green revolution technologies have caused many countries to move

away from small-scale domestic production of food staples and towards export-oriented monoculture production destined to the global North, increasing their dependence on international markets and deeply affecting local agriculture (Andrée et al., 2014a). Globally, the paradoxical coexistence of hunger and obesity, the reliance on increasingly scarce petroleum, the destruction of livelihoods and culture, environmental degradation and extreme food price fluctuations demonstrate the need for alternatives to the globalizing food system (Peters et al., 2008; Roberts, 2008; Andrée Ayres, Bosia and Massicotte, 2014b).

The urgency of transforming existing food production, distribution and consumption systems to make them ecologically, socially and economically more just and sustainable has been clearly highlighted by the emergence of local, state-wide and transnational food movements. The latter are challenging the sustainability of the neoliberal food regime, which is characterized by industrial and intensive agricultural production and long-distance transportation of processed food, economic concentration, social disempowerment and heavy use of non-renewable resources and capital. Various responses have been observed, in the past decades, to the global food crises, through food riots but also movements such as Mexico's 'No Corn, No Country' campaign or the international grassroots organization Slow Food, which are part of a global effort of sociopolitical organizing and mobilization for greater 'food democracy' or 'food sovereignty' (Andrée et al., 2014b).

As a concept, food sovereignty was first coined by the transnational network *La Vía Campesina* (LVC) through a major campaign, launched in 1996, opposing the neoliberal model of industrial and corporate agriculture and calling for alternatives to the increasingly globalized food system. LVC represents the largest transnational peasant and farmer organizations' networks and the food sovereignty campaign now unites producers, consumers, activists and a diverse set of social and economic actors calling for greater democratic control of their food systems (Patel, 2009; Andrée et al., 2014a). These disparate individuals and groups, rooted in different localities, represent various ways to use and appropriate this concept, based on a diversity of priorities, ecosystems, cultures

and needs. In this sense, food sovereignty remains an unsettled framework of analysis. It gathers many actors, each rooted in their own realities and contexts, who have appropriated the concept as a common response to the neoliberal food system yet to pursue various agendas, which are sometimes compatible but sometimes conflicting (Andrée et al., 2014a). These responses are grounded in people's everyday lives and struggles, in which small-scale producers, local economies and markets continue to be central forces.

The objective of this research is to analyse and provide a concrete example of an alternative to the neoliberal food system and its application of some of the central principles of food sovereignty. It examines the case of a small, locally-based initiative called *Traspatio Oaxaqueño* (TO). This local network seeks to revitalize *traspatio* (backyard) agro-food production, to which the role of women is central, in the Oaxacan region of the Valles Centrales in Mexico (TO, 2015). *Traspatio* agriculture, or *traspatio* gardening, is the practice of cultivating fresh fruits and vegetables and raising small animals in an intensive and continuous fashion on a yearly basis and can be undertaken in any small space close to the house. The products that are cultivated are primarily consumed by the producer and his or her family, with surpluses possibly destined to local markets (*Centro de Capacitación e Innovación Tecnológica*, n.d.). TO is a fairly new (approximately 2 years) initiative rooted in specific communities. It thus represents a useful case to explore how such projects are emerging and constructed from the ground up, by individuals and groups with a collective objective.

The initiative's leaders do not explicitly associate themselves with LVC or the concept of food sovereignty. By seeking to lessen the dependence of women from economically vulnerable families upon grocery stores and transnational corporations who are dominating food systems, however, TO can contribute to the consolidation of locally grounded alternatives and promote some of food sovereignty's key principles. This study will thus help to understand *to what extent* such initiatives can empower marginalized communities and improve their living conditions while developing more sustainable and just food systems. By doing so, it will also contribute to a better understanding of

everyday life in socioeconomically marginalized communities, as well as the capacities and constraints that these actors are facing in reshaping food systems. Using the concept of food sovereignty and drawing from the conceptual frameworks of agroecology and sustainable livelihoods (SL), I wish to produce and disseminate relevant knowledge and experiences, which are very much needed for understanding today's opportunities and limitations in implementing alternative agro-food systems that take into account specific communities and explicitly seek to promote food justice and sustainability.

1.2 Objectives and Research Questions

The objective of this research is to contribute to the debates and discussion around food sovereignty, which constitutes a reaction to the inequitable distribution of the downsides of a globalizing agro-food system. As defined by Fernandez, Méndez and Bacon (2013), an agro-food system comprises the set of activities, relationships and actors that interact and shape the way agro-food products are produced, processed, distributed and consumed. This research examines to what extent the experience of the TO initiative may contribute to the conceptualization and application of some of the food sovereignty principles by providing an alternative model of agro-food development. Based on a case study analysis of TO, which seeks to reaffirm the central role of women to food production and the socioeconomic and cultural value of *traspatio* agriculture in communities of the Oaxacan region of Valles Centrales, I explore the actual opportunities and limits to this alternative agro-food system in promoting and implementing the principles that activists and scholars now often associate with food sovereignty. Drawing from the SL and agroecology frameworks, the research highlights the ways in which TO contributes to 1) empowering women from economically vulnerable households by giving them the tools to contribute to their own food security and potentially to local food production; 2) preserving the right to healthy and culturally appropriate food; and 3) promoting the use of ecologically, economically and socially sound and sustainable methods.

The theme of social relations, which is central to the conceptual framework, is analyzed through the examination of social capital and gender relations. The interactions at different scales (household, village, municipality, region, country) are examined to understand how TO contributes to the building of social capital, which constitutes an important component of both the initiative and this research's conceptual framework. TO, values community involvement and network building through the creation of links within and between individuals and groups of various villages and municipalities. As recognized by the food sovereignty, agroecology and SL frameworks, social connections are inherent to food production, distribution and consumption; they enhance solidarity, promote a sense of belonging and can strengthen local collective capacity and empowerment, fostering greater opportunities to influence formal institutions and, consequently, resource management. Furthermore, proponents of food sovereignty consider women's empowerment and gender equality as necessary to promote food sovereignty and justice. This research addresses the gender inequalities that exist within the sphere of agrarian production, and the associated difficulties that women face in accessing productive resources and adequately feeding their families. It highlights the ways in which gender equality and social capital are interrelated, and can be mutually reinforced to create more sustainable agro-food systems.

The remainder of Chapter 1 lays out the research design as well as data collection methods that were used during the fieldwork. Chapter 2 includes a literature review of the different approaches and concepts that constitute the conceptual framework, i.e. the food sovereignty paradigm, the agroecology and SL frameworks and the concept of social relations. A note on the urban-rural divide is also provided in order to better understand the complex and dynamic interactions that exist within the food system landscape and the resulting inconsistency in the use of the terms urban, peri-urban and rural. Furthermore, I expose the problems that exist within the dominant agro-food system and explain the different concepts that are put forth when seeking alternatives to this model. In Chapter 3 I trace the sociopolitical economy of TO in the Mexican and Oaxacan context as well as the structure of the initiative. I provide a detailed description of the three communities in which the interviews were conducted. Chapters 4, 5 and 6 present the collected data and

the ways in which it answers the three research questions, as to know how TO contributes to empowering women from economically vulnerable families, preserving the right to healthy and culturally appropriate food and promoting the use of ecologically, economically and socially sustainable methods. I offer concluding thoughts in Chapter 7 regarding the shortcomings of TO in implementing food sovereignty principles but also its contribution to much needed ideals and dialogues about alternative food systems.

1.3 Research Design

This qualitative research aims to provide a holistic understanding of the complex realities of the people that are involved in TO. It is interpretive and was conducted through participatory principles, in order to understand the socioeconomic and political context in which the initiative stemmed and what it signifies for the participating individuals and communities. It seeks to contribute to the discussion and debate around the food sovereignty paradigm through a specific case study, i.e. TO. The case study is particularly useful as this qualitative method allows for the observation and analysis of a specific phenomenon and the processes and actors that shape and define it (Gagnon, 2005). The TO initiative has been chosen for various reasons; it is fairly recent and involves many communities that are at different stages of the process, which provides an opportunity to understand how such an alternative agro-food system emerged and is constructed from the ground up at the local level. While the initiative was created and is managed by a few local leaders, it can be described as a bottom-up initiative as opposed to a top-down project; it differs from, for instance, the acclaimed urban agricultural Cuban experience, which has been promoted and sustained by the Cuban government and its numerous experts in the agroecological field, in terms of increased autonomy vis-à-vis the neoliberal food production model (Altieri et al., 1999).

Moreover, this case study allows for the exploration of certain key concepts that are central to food sovereignty, as well as its concretization, for this paradigm tends to be defined in multiple ways. The research uses inductive reasoning; conclusions are drawn from the field data in order to determine how people perceive their experience in TO and

how the analysis of these experiences can deepen our understanding of the potential contribution and limits of such initiatives to the food sovereignty paradigm opposed to the dominant, neoliberal food regime, and to local or regional development projects seeking to promote sustainable livelihoods among marginalized communities. Nonetheless, it is important to note that the conclusions of this research cannot be generalized, as the case study provides a descriptive and general portrayal of the experiences of the different stakeholders, how they act, believe and perceive the initiative; as well as an analysis of TO in its specific sociopolitical and economic context, within its own ecosystemic and historical parameters. While seeking to provide the most authentic representation possible of the participants' realities (Gagnon, 2005), the length of the field work and the impossibility of completing a thick ethnographic analysis of a variety of communities do not allow us to provide definitive conclusions. It however allows to highlight some key elements and to point towards possibilities for future research and reflection on the implementation and consolidation of this type of initiative.

1.4 Data Collection

The data collection was done through a fieldwork of 3 months in the city of Oaxaca, Mexico, from January 12th to April 13th 2015 (see Chapter 3 for an overview of the sociopolitical context of Oaxaca and Mexico and details about the case study). A period of approximately one month was spent, prior to the beginning of official interviews, getting a generalized understanding of the communities that are involved as well as members and supporting organizations, allowing for the building of trustful relationships with a few key actors. First contacts were facilitated by Pavel Renato López Gómez, a member of the initiative's council who was contacted through social media. With the help of López Gómez, TO creator Efrain Aragon Ibañez and first potential participants were identified during this period. The second and third months were spent conducting semi-structured interviews and facilitating participant observation around the city of Oaxaca in the selected communities.

Semi-Structured Interviews

A total of 19 semi-structured interviews, in Spanish and without a translator, of approximately one hour each were conducted in three communities with 25 TO participants (see Table 1), 2 members of the initiative's council and one member of the federal government working for the *Instituto Nacional de Desarrollo Social* (INDESOL, National Institute of Social Development) at the *Programa de Coinversión Social* (Social investment program). This data collection method gives the opportunity to understand the motivations and processes that constitute a project, to tailor the questions to the different individuals and to create a closer link with interviewees (Desai and Potter, 2006; Beaud, 2009). It also helps ensuring that the discussions cover the research's key questions, while providing interviewees with the opportunity to share their own ideas and expand on subjects that they feel are particularly important.

The sample was determined through nonprobability purposive sampling method. The selection of interviewees was defined geographically (i.e. in specific communities/municipalities) and by category of stakeholder. Semi-structured interviews were thus conducted in three communities situated around the city of Oaxaca (see Figures 1, 2 and 3) within the region of Valles Centrales: San Nicolás Quialana (municipality of Zimatlán de Alvarez, Zimatlán district), Reyes Mantecón (municipality of San Bartolo Coyotepec, Centro district) and Vicente Guerrero (municipality of Villa de Zaachila, Zaachila district). The communities are situated, respectively, in districts #3, 4 and 2 on Figure 3. To ensure a better representation of the studied communities as well as a good understanding of the origins and functioning of TO, the interviews were limited to these three locations. Each community offered interesting differences in terms of land tenure systems and level of progress within the project, which allows us to proceed to a broader analysis of the different stages, potential opportunities and obstacles that may be observed within various contexts. These characteristics are presented in Table 2, and a detailed description of the three communities is provided in Chapter 3.

Table 1. List of interviewed participants per community

Location	District	Number of interviewees
San Nicolás Quialana	Zimatlán	7 participating women + 1 husband
Reyes Mantecón	Centro	6 participating women + 1 husband
Vicente Guerrero	Zaachila	8 participating women + 1 participating man + 1 husband

Table 2. Determining characteristics of the study areas, spring 2015

	Vicente Guerrero	San Nicolás Quialana	Reyes Mantecón
Land property system	Private	Ongoing private certification	<i>Ejidal</i> (communal)
Phase of the initiative	Phase 1: no value-added production	Phase 3: value-added production started, no sale	Phase 4: value-added production started, a few participants selling at markets and specific events

The different stakeholders were identified as: directly involved participants (holding various roles, some of them in TO municipal committees), members of the initiative's council, supporting organizations and government representatives. While opposition groups were considered prior to the fieldwork as potential stakeholders, none were identified during the fieldwork. Moreover, while one husband per community was present and participated to the interviews, their presence was unplanned and interview questions were not directed towards them. It would have been useful, given more time, to include participants' husbands' perspectives (as well as those of other stakeholders such as former members, women who do not wish to participate, etc.). These could have provided a better insight on, among other things, gender relations and social inclusion.

Figure 1. Mexico and its States



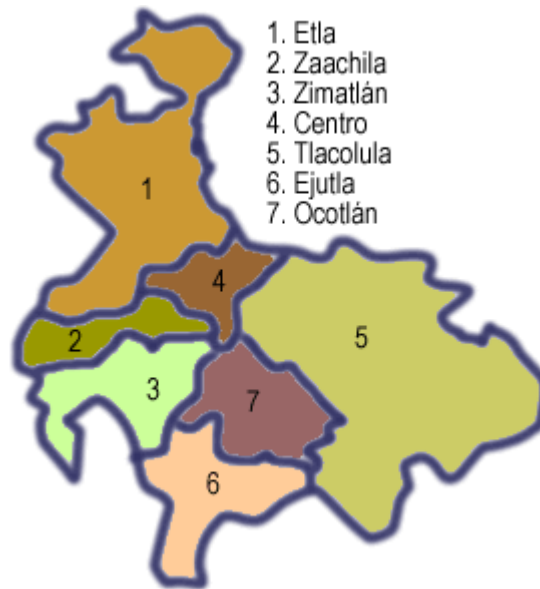
Source: Google Maps, 2016

Figure 2. Oaxaca State and its Regions



Source: TO, 2015

Figure 3. Districts of the Valles Centrales, Oaxaca



Source: TO, 2015

The purposive sampling method, more specifically the snowball technique, allowed for the selection of interviewees based on their links to the TO, and for a better understanding of relationships and social networks (Beaud, 2009). Moreover, due to the unavailability, thus far, of a formal record of group members, snowball sampling was the best and only way, once on the field, of identifying potential interviewees. This technique allows for a better understanding of social structures. However, there is certainly a risk of having the informants (in the case of this research, TO leaders) lead the researcher to specific people – i.e. those they know personally and who are supportive and interested in the initiative. While the leaders had a bigger role in the choice of specific participants in the village of Reyes Mantecón, the selection of interviewees in the villages of Vicente Guerrero and San Nicolás Quialana was done on a volunteer basis, with all of the groups' participants present at the initial meeting. Anyone who was interested in learning more about the research was also invited to talk to or contact the researcher by telephone. Finally, as Desai and Potter (2006) suggest, random encounters were also useful to crosscheck information and/or obtain perspectives beyond the initiative's participants as well as unofficial participants (who were not formally interviewed).

The amount of interviewees was expected to be determined by the “saturation” principle, according to which the addition of data through supplementary interviews does not contribute to the further comprehension of a phenomenon (Savoie-Zajc, 2009). Given the very large amount of participants of various municipalities and the time restrictions, interviews were conducted until the end of the fieldwork in order to collect as much information as possible. Saturation was not reached; as mentioned previously, a longer fieldwork could have allowed collecting more data, especially when it comes to the perspectives of non-participant stakeholders. All of the interviews that were conducted with participants were held at the person’s home, to ensure that they were comfortable and to allow them to share their own thoughts and ideas. This also provided the opportunity to observe their environments as well as the methods, resources and installations that are used and produced through the TO initiative. The interviews were recorded on a digital voice recorder (with the interviewee’s prior consent). It should be noted that while the anonymity of the participating men and women will be preserved, both initiative leaders Lourdes Diego Cervantes and Efrain Aragon Ibañez agreed to be cited directly due to their obvious role within TO and their frequent public interventions.

Participant Observation

Participant observation was done all through fieldwork during semi-structured interviews as well as by assisting activities related to the project. Participant observation is defined as “a combination of a wide variety of methods, including observation; informal interviews and/or conversations; analysis of other materials and evidence encountered while in the field; biographies, life histories, and personal accounts and stories of participants; and researcher documentation and diaries” (Mills, Durepos and Wiebe, 2009). While the participant observer may adopt a more distant and discrete role (covert participant observation), participants can be informed that the observer is there for research purposes (overt participant observation), which was the case for this research. Because participant observation is used to understand individuals’ and communities’ behaviors, norms and customs, in-depth immersion is to be privileged during fieldwork.

In that sense, the selection of only three villages in which the research was conducted allowed for multiple visits that helped build a sense of commitment towards the participants and increase the opportunities to gain a deeper understanding of the relationships and dynamics within these communities. The research's purpose and objectives were clearly explained to all participants at first contact, giving them time to ask questions or share thoughts, contributing to a better understanding of expectations and motivations on both sides (researcher and participant).

The different activities through which participant observation was conducted are: one data collection activity for the ecological oven program (*estufas ecológicas*, an INDESOL initiative that provides chimney-equipped ovens that consume less wood, thus reducing the long term health problems associated with burning wood indoors) with employees of the initiative in the village of Santa María Vigallo (municipality of Zimatlán de Alvarez, district of Zimatlán), three meetings related to the ecological oven program in different villages (San Nicolás Quialana, Santa María Vigallo and Rosario, Zimatlán de Alvarez, Zimatlán), a one day-long information event with participants from various municipalities (held in Reyes Mantecón) and a visit to the village of Valle Dorado, Villa de Zaachila, Zaachila, which is in the process of getting involved with the initiative. This allowed for additional data to be collected with the advantage of observing everyday relationships and typical events without the reluctance to discuss certain subjects that some participants may feel spontaneously while being formally interviewed. It also allowed me to capture the dynamics of participants' interactions with each other, as suggested by Liu and Maitlis (2010). While the authors suggest that observation should end when theoretical saturation is reached (p. 610), this point could not realistically be attained (for the reasons mentioned previously) and observation was done until the end of the fieldwork.

Ethical considerations

In order to have valid and reliable data, the researcher must be aware of the specific cultural dynamics that exist within researched communities and ensure that he or she

adopts a context-sensitive approach (Desai and Potter, 2006). Knowing, prior to the fieldwork, that machismo is still considerably influential in the Mexican culture, even more so in marginalized communities such as the ones that were studied, certain measures were taken to minimize the influence of these gender relations on the collected data. Machismo refers to a set of standards of behaviour in the Mexican culture, and tends to be associated with the negative characteristics of sexism and hypermasculinity (Arciniega, Anderson, Tovar-Blank and Tracy, 2008). It is recommended to stay in researched communities long enough to be able to grasp these types of power structures and nuances (Desai and Potter, 2006). While it would be presumptuous to affirm that it allowed for a deep understanding of these structures, the interviews being limited to three communities helped build trusting relationships with mostly women, which increases the chance of having access to valid information. Being a young, Canadian woman, the researcher also ensured that her clothing and appearance were adapted to the local context. Moreover, while men were present for three interviews with participating women, due to unpredictable circumstances, the majority was done individually in order to allow women to express themselves openly. In that sense, it should be noted that none of the women whose husbands were present for the interview mentioned machismo or men as an obstacle to women's participation.

Limiting the research to three communities has contributed to a minimization of the power differentials and/or hostilities that may have been felt from members of the researched communities. As a privileged academic researcher, particular attention was given to the presentation of the research project, which was done in the most transparent way possible, giving time and space for potential participants to ask questions and clarifications. Negative experiences with past researchers can lead to feelings of inferiority or powerlessness towards the research process. Indeed, one TO leader as well as another member of the initiative close to leaders made comments regarding the purpose of the research, expressing concerns regarding whether or not there would be efforts to truly benefit the research communities and build positive relationships with participants (participant observation). Repeated visits to the three communities, however, seemed to have been appreciated and contribute to gain trust both participants and

leaders, as they remained in contact with the researcher beyond the fieldwork. Some time was also spent with members of the communities of San Nicolás Quialana and Reyes Mantecón outside the context of the research, where relationships were further developed and helped get a sense of the identity and everyday life of the participants. As stated by Desai and Potter (2006), cultural differences between the researcher and participants provide opportunities to exchange on the differences between countries, lifestyles, cultural practices, etc., which helps build rapport with members of the communities.

Finally, the many national and international agencies that are involved in development research around the world can lead to a general perception that research projects come with tangible development benefits (Desai and Potter, 2006). This has been observed during the fieldwork, as the initiative's leaders seemed to perceive the researcher as a gateway to donor agencies (informal conversations, March 2015). A discussion regarding the benefits that may realistically arise from participating to the research was held with Aragon Ibañez, where the researcher explained her limited access to these agencies. The primary findings of the research will however be sent to the council in order to ensure that any relevant data can be used, potentially contributing to a more detailed description and/or to a better understanding of their own initiative, which could be used to explore and apply ask for further support from the government or other organizations.

Chapter 2: Literature Review

2.1 Conceptual Framework

Food Sovereignty

The concepts of food security and food sovereignty are both useful to analyze and improve certain aspects of agro-food systems. While the discussion around food security typically avoids the question of social control of the food system, the food sovereignty paradigm assumes that the power structures within the neoliberal food regime need to be explicitly part of the discussion (Patel, 2009). Based on the concept of food security,

development work has focused primarily on the availability of food for all, at all times, and the need for greater productivity while the issue of access was long neglected and inconsistently addressed. When it is considered, it is usually limited to an economic lens. As Wittman, Desmarais and Wiebe (2010) discuss, food security is defined in a way that invites an interpretation towards the need for maximizing food production without discussing the questions of how, where and by whom food is produced. Reinforcing this idea, Fernandez et al. (2013) consider that “food security is not only dependent on the availability, access and utilization of food, but also on the availability, access and utilization of natural resources (...), financial resources (...), sociopolitical resources (...) and cash or non-cash economies” (p. 4). It is thus considered that food security, as an objective, will be attained through a reconsideration of the power structures that determine access to productive resources. As put forth by Paul Nicholson, founding member and leader of LVC: “we propose local markets, the right of any country to protect its borders from imported food, sustainable agriculture and the defense of biodiversity, healthy food, jobs and strong livelihoods in rural areas” (Andrée et al., 2014a, p. 25).

LVC was the first to coin the term ‘food sovereignty’ and to define it 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. **It puts those who produce, distribute and consume food at the heart of food systems and policies** rather than the demands of markets and corporations. It defends the interests and inclusion of the next generation. It offers a **strategy to resist and dismantle the current corporate trade and food regime**, and directions for food, farming, pastoral and fisheries systems **determined by local producers**. Food sovereignty **prioritizes local and national economies and markets and empowers peasant and family farmer-driven agriculture**, artisanal fishing, pastoralist-led grazing, and **food production, distribution and consumption based on environmental, social and economic sustainability**” (LVC, cited in Alberto, Reardon and Pérez, 2010, p. 910, my emphasis).

Food sovereignty calls for a fundamental shift in values regarding social, ecological and political relations. It also recognizes the social connections that are inherent to the

production, consumption and sharing of food, towards the elimination of the exclusion and enclosure processes that the capitalist system has been based on (Wittman et al., 2010). The International Planning Committee (IPC) for Food Sovereignty, a coalition of various NGOs and social movements building a common framework promoting food sovereignty, has identified four pillars or priority areas central to the concept:

1. The right to food, based on the development of a human rights approach to safe, nutritious and culturally-appropriate food entitlement;
2. Access to productive resources, or the promotion of access to water, land and genetic resources as well as their benefits;
3. Mainstreaming of agroecological production, through the design and management of agroecological systems;
4. Trade and local markets, promoting policies to protect farmers from subsidized exports, food dumping and other downsides of the dominant agricultural trade model (Lee, 2007).

These four pillars are used to orient the analysis of TO's contribution to the three research questions that have been mentioned above: (1) the empowerment of economically vulnerable families with women as central actors (pillars #2 and 4), (2) the recovering and preservation of the right to healthy and culturally appropriate food (pillar #1), and (3) the use of ecologically, economically and socially sound and sustainable methods (pillar #3).

The food sovereignty paradigm seeks to empower marginalized producers, distributors and consumers of the neoliberal food system, which represent a large heterogeneous group. With further discussion and the adoption of a revised definition of food sovereignty by LVC and their allies, women's empowerment became a central dimension of the food sovereignty campaign and movement. In fact, proponents of this framework see the full realization of women's human rights as a prerequisite for the attainment of food sovereignty. Because women play a central role in family food security and culture, the social and political transformation that food sovereignty calls for entails equality and

respect for women (Wittman et al., 2010). In that sense, women from economically vulnerable families, which have been particularly marginalized through Mexico's agricultural development, have been identified as the primary actors that we seek to empower through TO.

Jansen (2015, p. 213) provides an interesting analysis and critique of the food sovereignty paradigm, commonly described as an alternative agrarianism that contests the corporate food regime. The 'peasant', according to the author, is a label bringing together too many categories of the farming population, which are presented as necessarily being opposed and endangered by capitalism (p. 215). He discusses the idea of 'capitalism from below', arguing that while smallholders are often presented as victims, many in fact seek a greater participation in commodity chains. Jansen sustains that "the food sovereignty movement does not result from, or reveal, a crisis in agrarian capitalism, but reflects a crisis of those who are unable to participate in this agrarian capitalism" (2015, p. 219). This research touches upon these questions, identifying the 'peasants' that TO seeks to empower, and examining whether it allows them to challenge the dominant model (and if so, in what ways and to what extent), or if it also promotes greater access to this agrarian capitalism. While this specific initiative is not built, nor does it aim at deeply questioning the capitalist model of food production, it provides a necessary space for discussion around the daily struggles that men but especially women from economically vulnerable families face as they evolve in an agro-food system that remains dominated by neoliberal values, which limit their capacity to reach food sovereignty. These questions will be further examined in Chapter 7.

Agroecology

Food sovereignty constitutes a normative framework seeking to address the pressing issues that are associated with the neoliberal food regime. Relatively few studies, however, provide assessments on the ground and the tools that exist to understand a household or community's food sovereignty are limited (Fernandez et al., 2013). The agroecology and SL (discussed next) frameworks represent interesting analytical tools to

complement the food sovereignty paradigm and examine the three research questions. Agroecology is now considered to be a key strategy to achieving food sovereignty at the farm scale (Fernandez et al., 2013; Shattuck, Schiavoni and VanGelder, 2015; Jansen, 2015). While ecology is defined as “the branch of biology that deals with the relations of organisms to one another and their physical surroundings” (Ecology, 2015), agroecology is described as the ecology of food systems, with their ecological, social and economic dimensions (Fernandez et al., 2013, p. 5).

Many authors such as Martinez-Torres and Rosset (2010) and Alberto et al. (2013) suggest that agroecology is at the base of the food sovereignty model in terms of farming methods, making for a more sustainable agricultural system. It is indeed considered by many proponents of the food sovereignty paradigm to be the only model capable of sustainably feeding the world, with peasant farmers and indigenous communities as primary actors, and food regaining its social role as opposed to being reduced to a simple commodity and profit-making industry (“Agroecology”, 2015; Shattuck et al., 2015). It promotes low external input technologies to reduce cost and increase farmers’ autonomy, though it is labor, knowledge, and management intensive (Altieri, 2007; United Nations Conference on Trade and Development, 2013). While it does not reject external inputs or science and technology altogether, agroecology favors the use of locally-available resources and prioritizes local needs that can benefit from appropriate technologies, as well as the diversification of species and genetic resources.

More importantly, it is based on farmers’ knowledge and experimentation, as opposed to a top-down model of heavy reliance on external and homogenous technologies and inputs. The 2008 UN and World Bank-sponsored International Assessment of Agricultural Science and Technology for Development (IAASTD) report supports this idea, stating that the shift to ‘nonhierarchical development models’ must be accompanied by a higher respect for farmers’ knowledge and biodiversity, while favoring common resource management systems (McMichael, 2012). As suggested by the food sovereignty framework, the roles of power relations and politics, particularly in an attempt to steer transformative change within existing food systems, are central to the creation of

alternative models. Agroecology's critique of the industrial agro-food system calls for an examination of the institutions and structures that govern it, and a restructuration towards participative and action-oriented processes. The concept of agroecology is thus also a political one, as it contests the practices linked to the "green revolution technologies" and suggests a more inclusive, just and sustainable vision for the future of agro-food systems. Koohafkan, Altieri and Gimenez (2011) propose a set of attributes, derived from existing literature on agroecology and sustainable agriculture, to assess the sustainability of an agricultural system (see Figure 4).

Based on the agroecological attributes provided in Figure 4, the following themes will be examined to assess the sustainability of the initiative (Koohafkan et al., 2011, p. 5):

- Avoid the unnecessary use of agrochemical and other technologies that adversely impact the environment and human health (e.g. heavy machineries, transgenic crops, etc.)
- Efficient use of resources (nutrients, water, energy, etc.), reduced use of non-renewable energy and reduced farmer dependence on external input
- Making productive use of human capital in the form of traditional and modern scientific knowledge and skill to innovate, and the use of social capital through recognition of cultural identity, participatory methods and farmer networks to enhance solidarity and exchange of innovations and technologies to resolve problems
- Strengthen adaptive capacity and resilience of the farming system by maintaining agroecosystem diversity, which not only allows various responses to change, but also ensures key functions on the farm
- Recognition and dynamic conservation of agricultural heritage systems that allows social cohesion and a sense of pride and promote a sense of belonging and reduce migration

Figure 4. Agroecological assessment of sustainable agro-food systems

Table 1 | Basic attributes of sustainable agricultural systems

1.	Use of local and improved crop varieties and livestock breeds so as to enhance genetic diversity and enhance adaptation to changing biotic and environmental conditions
2.	Avoid the unnecessary use of agrochemical and other technologies that adversely impact on the environment and on human health (e.g. heavy machineries, transgenic crops, etc.)
3.	Efficient use of resources (nutrients, water, energy, etc.), reduced use of non-renewable energy and reduced farmer dependence on external inputs
4.	Harness agroecological principals and processes such as nutrient cycling, biological nitrogen fixation, allelopathy, biological control via promotion of diversified farming systems and harnessing functional biodiversity
5.	Making productive use of human capital in the form of traditional and modern scientific knowledge and skills to innovate and the use of social capital through recognition of cultural identity, participatory methods and farmer networks to enhance solidarity and exchange of innovations and technologies to resolve problems
6.	Reduce the ecological footprint of production, distribution and consumption practices, thereby minimizing GHG emissions and soil and water pollution
7.	Promoting practices that enhance clean water availability, carbon sequestration, conservation of biodiversity, soil and water conservation, etc.
8.	Enhanced adaptive capacity based on the premise that the key to coping with rapid and unforeseeable change is to strengthen the ability to adequately respond to change to sustain a balance between long-term adaptability and short-term efficiency
9.	Strengthen adaptive capacity and resilience of the farming system by maintaining agroecosystem diversity, which not only allows various responses to change, but also ensures key functions on the farm
10.	Recognition and dynamic conservation of agricultural heritage systems that allows social cohesion and a sense of pride and promote a sense of belonging and reduce migration

Source: Koohafkan et al., 2011, p. 5

Sustainable Livelihoods Framework

This research examines, among other things, how the initiative provides tools and productive resources for women from economically vulnerable families and promotes policies to support them and their contribution to local food production. The SL framework recognizes, as do food sovereignty proponents, the important link that exists between access to productive resources and the globalizing economic and political context, as well as social and institutional processes. It is of particular interest to this research for it allows the identification of the different resources, through various forms of capitals, that the food sovereignty paradigm refers to. These productive resources are necessary for TO participants to effectively contribute to improved local food production, access to healthy food and economic autonomy, as well as to gain more political attention from the Mexican government. Four capitals are identified by Scoones (1998):

- Economic/financial capital: “the capital base (cash, credit/debt, savings, and other economic assets, including basic infrastructure and production equipment and technologies) which are essential for the pursuit of any livelihood strategy” (p. 8). Physical resources are thus included in economic/financial capital.
- Human capital: “the skills, knowledge, ability to labour and good health and physical capability important for the successful pursuit of different livelihood strategies” (p. 8).
- Natural capital: “the natural resource stock (soil, water, air, genetic resources, etc.) and environmental services (hydrological cycle, pollution sinks, etc.) from which resource flows and services useful for livelihoods are derived” (p. 7).
- Social capital: “the social resources (networks, social claims, social relations, affiliations, associations) upon which people draw when pursuing different livelihood strategies requiring coordinated actions” (p. 8).

This is not an exhaustive list, and other capitals can be identified. Bebbington (1999) adds cultural capital to the SL framework, suggesting that there is a range of cultural practices (which can be agricultural) that people find meaningful and that are enabling

and empowering. While they are hard to quantify, these practices, he states, enable action and resistance and their role should not be overlooked. This question will be further discussed in Chapter 7, as the cultural value that TO participants associate with *traspatio* agriculture is questioned. Be that as it may, Scoones (2009) discusses the different capitals, to which people may have more or less access and control over, that must be combined in order to create sustainable livelihood opportunities and challenge existing structures (Bebbington, 1999; Scoones, 2009). In accordance with the food sovereignty paradigm, it reflects the intimate social and cultural contexts and values of diverse livelihood strategies, putting individuals at the centre of a system, representing constraints and opportunities, and conceiving these individuals as agents of change and contributors to poverty-alleviating strategies (Bebbington, 1999).

Moreover, Koohafkan et al. (2011) provide an alternative yet complementary set of questions to the agroecological attributes suggested in Figure 4. These questions aim at assessing the sustainability of agricultural interventions through the SL framework by improving people's access to productive resources (see Figure 5) Drawn from the set of questions provided in Figure 5, and to reinforce the sustainability assessment that will be done through the agroecological attributes, the following questions have been identified as relevant to the agricultural interventions that are done through TO (Koohafkan et al., 2011, p. 7):

- Do they reduce investment costs and farmers dependence on external inputs?
- Do they increase human capital formation?
- Do they conserve and encourage agrobiodiversity?
- Do they reduce social exclusion, particularly for women, minorities and indigenous people? Do they increase income opportunities and employment?
- Are they reducing poverty?
- Do they favor the redistribution (rather than the concentration) of productive resources?
- Do they substantially increase food production and contribute to the household food security and improved nutrition?

Figure 5. Guiding questions to assess the sustainability of livelihoods

Table 2 A set of guiding questions to assess if proposed agricultural systems are contributing to sustainable livelihoods	
1.	Are they reducing poverty?
2.	Are they based on rights and social equity?
3.	Do they reduce social exclusion, particularly for women, minorities and indigenous people?
4.	Do they protect access and rights to land, water and other natural resources?
5.	Do they favour the redistribution (rather than the concentration) of productive resources?
6.	Do they substantially increase food production and contribute to household food security and improved nutrition?
7.	Do they enhance families' water access and availability?
8.	Do they regenerate and conserve soil, and increase (maintain) soil fertility?
9.	Do they reduce soil loss/degradation and enhance soil regeneration and conservation?
10.	Do practices maintain or enhance organic matter and the biological life and biodiversity of the soil?
11.	Do they prevent pest and disease outbreaks?
12.	Do they conserve and encourage agrobiodiversity?
13.	Do they reduce greenhouse gas emissions?
14.	Do they increase income opportunities and employment?
15.	Do they reduce variation in agricultural production under climatic stress conditions?
16.	Do they enhance farm diversification and resilience?
17.	Do they reduce investment costs and farmers dependence on external inputs?
18.	Do they increase the degree and effectiveness of farmer organizations?
19.	Do they increase human capital formation?
20.	Do they contribute to local/regional food sovereignty?

Source: Koohafkan et al., 2011, p. 7

Social Relations

As discussed previously, the food sovereignty approach recognizes the social connections that are inherent to the production, consumption and sharing of food and seeks to eliminate the exclusion and enclosure processes that the neoliberal system maintains. In the same sense, the agroecology and SL frameworks highlight the importance of building social networks to enhance solidarity, exchange information and pursue different livelihood strategies that may require coordinated actions. Within the theme of social relations, social capital and gender relations have been identified as important components of TO, for they influence the opportunities and obstacles that men but particularly women face in participating in the initiative and in collectively accessing the Mexican political sphere.

As Bebbington (1999) highlights, social capital is a concept used to describe the norms and networks that allow for mutually beneficial collective actions. Organizations or networks that link different actors can open up market possibilities for individuals that would otherwise not have them, allowing them to turn their assets into income streams. Social capital can be classified under three categories: bonding, bridging and linking (Babaei, Ahmad and Gill, 2012; Rubin and Manfre, 2014). Bonding social capital connects people who know each other well (from the same family, friends, neighbors, of similar sociofinancial positions and demographic characteristics, etc.), which can mobilize individuals and resources around a common objective (Babaei et al., 2012). A downside of bonding social capital is however the potential exclusion of outsiders.

Bridging social capital connects people that are not alike demographically but have similar financial status and power; they can come from different social groups or communities. Bridging increases access to a larger pool of resources, information and opportunities and is considered crucial for ‘getting ahead’ (Babaei et al., 2012, p. 121), i.e. for groups and communities to not only ‘get by’ but to achieve collective objectives. This may be done by pooling the tools that every individual has access to such as information, inputs, services and markets (Rubin and Manfre, 2014). Finally, linking

social capital represents the vertical dimension of social capital, contrary to bonding and bridging, which refer to horizontal links. Linking is the creation of ties between groups and people of authority, which may include civil society organizations, government agencies, the public sector (politicians and parties) and the private sector. At the regional or national level, organizations and their links to government officials can represent a tool for individuals to collectively have an influence on formal institutions and decision-making processes, and thus on the distribution of public resources and the managing of natural capital (Bebbington, 1999; Babaei et al., 2012). It should be noted that men tend to have higher access to linking opportunities, for gender norms facilitate the creation of these relationships for them. In Tanzania, for example, a study has found that groups with a higher ratio of male leaders improved their market situations (Ruban and Manfre, 2014).

Gender relations have an important impact on women's ability to access productive resources and to successfully take on the important role that they play in ensuring food security for the household. Based on recent analyses, women still have lesser access to education and information and have a disproportionate burden when it comes to household responsibilities and teenage pregnancies ("The human right to adequate food", 2015). In developing countries, the working life of many women is primarily comprised of home-related activities, including those taking place in the *traspatio* (or home garden) and most of which are not remunerated (Bryld, 2003; TO, 2015; Yetunde Ajani, 2008). Women face important limitations when it comes to participating in local economies, as unequal access to productive resources such as land, technology, water and credit represent major obstacles (Quisumbing, Meinzen-Dick, Raney, Croppenstedt, Behrman and Peterman, 2014; Rubin and Manfre, 2014). Lack of land ownership is considered to be one of the biggest economic constraints for most rural women (Yetunde Ajani, 2008). Indeed, women's low landownership rates and less secure usufruct rights represent a disadvantage for women participating in smallholder agriculture when they seek market access, as buyers favor producers that have secure land titles over those who do not (Rubin and Manfre, 2014). While smallholders such as TO participants are not seeking to attract buyers to enter large agricultural value chains, they do intend on gaining greater

access to markets, an endeavor that is mediated by their access to productive assets such as land, credit, information, etc. (Rubin and Manfre, 2014).

These obstacles hinder their autonomy and liberty, women comprising the majority of the world's poor and informal workers in both urban and rural areas (Yetunde Ajani, 2008). Bain (1993) considers that gender discrimination is largely responsible for malnutrition in women and children. He discusses the eating hierarchy that exists within Mexican households, where machismo is still very present. In these households women and children are usually disadvantaged in food distribution where availability is limited. These inequalities exist in the African context as well, where Yetunde Ajani (2008) has observed that women with less power have difficulties ensuring the fair distribution of food within the household. Having a *traspatio* that is controlled by the woman, therefore, may increase food security and sovereignty for women as well as for children and often elders under their care. In fact, many analysts consider that increased nutrition in women is an important short-term indicator of overall household nutrition and of the development capacity of a country (Yetunde Ajani, 2008). As primary caregivers, women are considered as particularly sensitive to the marketing of unhealthy foods, creating the need for better education and autonomy regarding the best way to feed their families ("The human right to adequate food", 2015; Yetunde Ajani, 2008).

The themes of social capital and gender relations are heavily intertwined. Women can highly benefit from the creation of social capital, as participating in associations, groups and organizations can reduce gender inequalities through collaboration to overcome obstacles and constraints that they likely all face individually (Rubin and Manfre, 2014). In Tanzania, horizontal linkages among smallholders are consistently associated with higher economic performances; the creation of social networks facilitates women's access to credit, information and marketing opportunities. Bonding social capital, which represents the creation of networks between individuals who are already acquainted, has proven to build confidence and leadership skills for women in Mozambique (Rubin and Manfre, 2014). As stated in the literature on social capital, however, this type of social network can encourage the exclusion of people that are not of the same socioeconomic

background or who do not belong to the same demographic group. Consequently, associations need to be built along gender-equitable governance systems that promote inclusiveness for women and men, and ensure that both sexes are actively engaged in group discussions and activities. Moreover, while mixed-sex groups might make it harder to privilege women's needs, they can provide a favorable environment to access bridging and linking capital, as social norms tend to facilitate access to this type of networks for men (Ruban and Manfre, 2014). Meinzen-Dick, Quisumbing and Berhman (2014) highlight that in many cases men take over women's enterprises when its value increases. This is true for *traspatio* production, as some studies have demonstrated that men tend to use their social position to take over the business (Bain, 1993).

Note on the Urban-Rural Divide

The limits that exist between urban, peri-urban and rural zones are decreasingly distinct in our current food system, an observation that is reflected in the somewhat inconsistent use of these three terms in TO documents. While the methodological guide that was produced by the initiative states that TO's objective is to contribute to the food security of economically vulnerable families of urban, peri-urban and rural zones around the city of Oaxaca (TO, 2015), other public documents advance that TO seeks to reinforce *traspatio* production in Oaxaca's rural communities without any mention of peri-urban or urban zones (TO, 2014). Moreover, both initiative leaders Diego Cervantes and Aragon Ibañez focused in their interviews on the role of rural women in food production (interviews Aragon Ibañez and Diego Cervantes), while many participating communities are situated in urban zones. Food production is decreasingly exclusive to rural areas, and the food system involves producers, distributors and consumers who's urban/rural connections are increasingly intertwined. Furthermore, Scoones (1998) suggests that while the SL framework tends to adopt the term 'rural', urban and rural livelihoods are clearly interconnected and the distinction is somewhat arbitrary. In that sense, he states, this approach suggests that we need to go beyond the sectorial perspective to rural development and recognize the important urban-rural linkages that exist in our economy.

I would extend this statement to all sectors, as urban, peri-urban and rural development spheres are all part of an increasingly dynamic system.

Bryld (2003) reinforces this idea when defining urban agriculture, stating that there is an important problem in conceptualizing the urban area in a development context. While the United Nations Development Programme (UNDP) defines urban as “... in a broad sense, to encompass the entire area in which a city’s sphere of influence (social, ecological, or economic) comes to bear daily or indirectly on its population” (Bryld, 2003, p. 80), the boundaries of this sphere are not isolated, and these distinctions are oversimplified representations of both rural and urban livelihoods. For example, rapid urbanization and globalization processes, as discussed in Chapter 3, are fueling rural-urban migration and reducing the space that is available for food production while creating labor shortages on smallholder farms (Bryld, 2003; Gravel, 2009; Rodriguez, 2012). These processes create dynamic movements, which make it harder to classify livelihoods as either ‘rural’ or ‘urban’. In accordance with these ideas, this research recognizes that the limits are increasingly blurry, and focuses on the implementation of food sovereignty principles in the participating urban, peri-urban and rural communities of the Oaxacan region of Valles Centrales.

2.2 Dominant versus Alternative Agro-Food Systems: Key Concepts

Today’s dominant agro-food system is the product of a layering of relationships, which can be understood through the food regime concept. This concept, as described by McMichael (2009), is used to describe periodic arrangements in the agro-food system, arrangements that have been shaped by various capitalist hegemonies in the global economy: British, American and corporate/neoliberal. The current food regime, he argues, can therefore be described as a particular period, starting in the 1980s-1990s, of corporate/neoliberal dominance in recent capitalist history. The organizing principle of today’s neoliberal food regime is the free market, as opposed to an empire or state, with a set of relationships privileging corporations in the service of capital accumulation and at

the expense of smallholder agriculture and local ecologies. In that sense, neoliberalism has created a disconnection between traditional forms of food production, with which consumers were more than clients and producers more than corporations. As Moustier argues: “transnational agri-food systems disconnect production from consumption and relink them through buying and selling” (2007, p.8), commodifying the food chain.

Moreover, Rastoin (2008) considers that the actual food regime is the product of a seemingly contradictory dual movement: a concentration at the production and distribution levels, which depends on the homogenization of clients. While we did witness a certain level of integration of agricultural production through the industrialization of the agro-food system, it is in the distribution and restaurant business that we find the largest global corporations such as Wal-Mart, Carrefour, Metro and McDonalds (Rastoin, 2008). Such agro-food giants contribute to the saturation of markets with subsidized food products, against which domestic agricultural systems cannot compete (Wittman et al., 2010). This situation results in a model of mass production within which local cultural, economic and social structures are increasingly vulnerable to the oligopoly that characterizes it. Many analysts argue that under the banner of public-private partnerships (PPPs) and multi-stakeholder initiatives, private corporations have gained immense power in the dominant agro-food system, undermining the physiological and nutritional needs of the general population (The corporate take-over of food and nutrition policy spaces, 2015, p. 4).

The neoliberal food regime maintains exclusion processes, particularly through the implementation of trade policies that are disadvantageous for small-scale producers and by imposing capital and energy-intensive agricultural practices, a model that accentuates inequalities and rural poverty (Beaudet, Canet and Massicotte, 2010). Capital-intensive production systems are highly vulnerable to input accessibility, as it is in the upstream sectors of the food system (e.g. seed and fertilizer producing firms) that we find the highest level of concentration (Rastoin, 2008), rendering input-dependent producers extremely vulnerable to the immense market power that the few enterprises that produce these inputs hold. While global food prices rose 24% in 2007, the top three global

fertilizer companies (Potash, Mosaic and Yara) saw their profits increase by 139% for the same year (McMichael, 2009). Authors such as Koohafkan et al. (2011) argue that the current food regime is based on unsustainable practices. Alternatively, diversified, small-scale farming systems designed by and for producers, which is largely the case of TO, may represent more democratic, just and sustainable alternatives. This view is shared by many authors such as McMichael (2012), who summarizes some of the recommendations associated with the ‘sustainable farming approach’ that came out of the 2008 IAASTD report by stating: “business as usual is not an option, in the face of multiple crises, the IAASTD questions industrial agriculture and transgenic food as solutions since markets fail to adequately value environmental and social harm” (p. 262). Working with local resources and promoting agroecological principles can reduce the need for external input, thus contributing to increasing the level of autonomy of participants and, thereby, the sustainability of alternative agro-food systems.

Different concepts have been used to refer to these alternatives. The terms ‘local’, ‘family-driven’ and ‘small-scale agriculture’ are often used to describe what we increasingly associate with a more sustainable way of producing and consuming food. If there fails to be a consensus on the definition of what is a ‘local food system’, most authors refer to this concept in its geographical sense and insist on the relative reduction of distances between points of food production and consumption (Peters et al., 2008; Martinez et al., 2010). This concept is however also a political one, referring to the need for alternative food production, transformation and distribution approaches that would address the many economic, social and environmental ills associated with the neoliberal and corporate food regime. Kremer and DeLiberty (2011) provide a definition from the University of California’s Sustainable Agriculture Research and Education program, which describes a ‘local food system’ as “a collaborative effort to build more locally-based, self-reliant food economies – one in which sustainable food production, processing, distribution and consumption is integrated to enhance the economic, environmental and social health of a particular place” (p. 1252). This definition highlights the political dimension of this concept, resonating with the food sovereignty paradigm, which seeks to propose alternatives to the current globalizing food regime.

The concept of family farming, for its part, has been defined by the Food and Agriculture Organization (FAO), in the context of its strategic planning for the International Year of Family Farming in 2014, as “a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family labor, including both women’s and men’s. The family and the farm are linked, co-evolve and combine economic, environmental, social and cultural functions” (Graeub et. al., 2015, p. 2). Family farms are also described in terms of landholding size, referring to family farmers as smallholders. While the World Bank uses size (under 2 hectares) to define smallholder agriculture, the Committee on World Food Security’s (CFS) High Level Panel of Experts (HLPE) defines it as “practised by families (including one or more households) using only or mostly family labour and deriving from that work a large but variable share of their income, in kind or in cash. Agriculture includes crop raising, animal husbandry, forestry and artisanal fisheries. The holdings are run by family groups, a large proportion of which are headed by women, and women play important roles in production, processing and marketing activities” (Graeub et al, 2015, p. 2). Mexico is one of only seven countries that have developed a formal definition of family farming or smallholder agriculture: “agricultural and livestock producers, foresters, and artisanal fishermen with limited resources, despite their heterogeneity, have the following main features: limited access to land and capital and predominant use of family labor, with the head of family being directly involved in the production process; which means that, even though there may be some division of labor, head of the family does not exclusively assume managing functions, but rather is a further worker for the family” (Graeub et al., 2015, p. 4).

Traspatio agriculture, or home gardening, can thus be described according to these definitions as both local and as a type of family farming (although usually considerably smaller than 2 hectares). The terms home garden and *traspatio* will be used interchangeably in this research. A home garden is generally defined as “an area around the peasant’s house where he (or she) cultivates a complex vegetation to satisfy his needs” (Bain, 1993, p. 260). *Traspatio* agriculture, as a type of subsistence food

production, combines cultivating vegetables and fruits with raising small animals around the house. The terms thus differ on the aspect of animal-raising, as home gardens only include plants and trees. Both home gardens and *traspacios* are generally considered culturally to be a women's space, which can serve important economic, nutritional and social functions. Christie (2004) states that Mexican women claim home gardens as their territory, a site of gendered knowledge and culture, where they maintain a certain level of control of the household. This type of food production is described as traditional in Mexico, and linked to various advantages and benefits: efficient use of natural resources and labour, increased well-being, preservation of local genetic resources and know-how, minimized pest and weed problems, increased food security and low cash investment (Bain, 1993).

Increased access to fluid income (through, among other things, remittances and off-farm employment) and commercial convenience foods have however had an impact on *traspacio* production, women distancing themselves from their traditional role. It is however considered that this type of subsistence farming can act as social insurance against extreme poverty and socioeconomic insecurity (Sanchez, 2011). Having a stable intake of homegrown products decreases the dependence on fluctuating incomes and increases the household's food security (Bryld, 2003). Moreover, the nutritional value of the products tends to increase because the consumption usually takes place shortly after the harvest, when nutrient content is high (Bain, 1993). Finally, home gardens may represent a source of cash income when households are selling the surpluses that they produce. The resources that are freed or produced can lead to the consumption of a higher diversity of products, as other kinds of products can be purchased such as meat, fish or expensive fruits and vegetables (Bryld, 2003)

Graeb et. al. (2015) state that despite consistent evidence showing that, in comparison with large-scale agricultural systems, small-scale farms can be more productive, resilient, stimulate local economies and employment and contribute to biodiversity and overall food security, escalating challenges exist for family farmers to contribute to the global agricultural economy to their full potential (p. 3). Issues such as absence of appropriate

markets, access to credit, education and appropriate agricultural research negatively affect family farmers' viability. These challenges are all heavily affected by a country's public policies and governmental support, as governments have been charged, through the neoliberal food regime, with the responsibility of absorbing the rising food costs and subsidizing capital (McMichael, 2009). Graeub et al. (2015) propose a set of policies and best practices to strengthen family farming: (1) improve communication and negotiation processes within and between farmers organizations, businesses, social movements and family farmers to set priorities and share innovations, (2) identify national priorities and create policies based on the functions and objectives of smallholders and family farms (e.g. securing their access to arable land, increasing public investment and access to low-interest loans/grants for smallholders and family farmers, etc.), (3) focus on family farms in research and development by improving linkages between researchers and family farmers to identify the right priorities, (4) promote rural advisory services that are inclusive and allow for the sharing of knowledge on innovation and sustainable practices, (5) build innovation capacity with a focus on education and training for women and youth and (6) improve markets towards a more democratic control by, among other things, creating fair trade environments between small farmers and agribusiness (Graeub et al., 2015, p. 3).

Chapter 3: The Sociopolitical Economy of Agro-Food Systems in Oaxaca and Mexico

3.1 The Sociopolitical and Economic Context of Mexico and Oaxaca

Mexico

Mexico corresponds to the Mesoamerican cultural and geographic region, within which many highly developed cultures flourished with several common features (FAO, 2006). Agriculture, as the basis of the economy, is one such feature that is fundamental to understand today's smallholders' struggle against neoliberalism. The marginalization of peasant production is not recent, with large-scale producers concentrated in the north and

family-oriented farms in the south (Gravel, 2009). A series of events, reforms and processes led to concepts such as food sovereignty and agroecology to emerge as important responses to the food and economic crises, especially in the countryside. Following the Second World War, the industrial development agenda and the 1950s green revolution promoted by IFIs as well as political and economic leaders, mostly based or trained in western countries pushed the government to prioritize high-input commercial agriculture and relegate smallholder production, which represents two thirds to three quarters of the country's farmers (Browning, 2013; Gravel, 2009), on the sidelines of agricultural production (FAO, 2006; United States Agency for International Development [USAID], 2011). Indeed, while the green revolution narrative promotes the use of higher yielding seeds and did increase agricultural productivity, these high-capital technologies are generally not accessible to smallholders and issues of access to land and purchasing power were not taken into account in the process (Rosset et al., 2000).

A few decades later, the 1994 North American Free Trade Agreement (NAFTA) marked another turning point for the agricultural sector. Through the liberalization of markets, the Government of Mexico has been inclined to favor export-oriented agriculture by adopting increased competitiveness and modernization approaches. This new focus means that very little attention has been given to other agricultural sectors or issues of food security/sovereignty, sustainability and culture (Gravel, 2009). Consequently, large-scale industrial producers who hold a comparative advantage in terms of innovative capacity, productivity and competitiveness have further been prioritized, at the expense of small-scale and subsistence farmers (Otero, 2011), accentuating the historical divide between the north and the south of the country. This agricultural development model only contributed to exposing Mexican farmers to increasing competition towards the heavily subsidized agricultural systems of the industrialised countries, a competition against which the government provides little support (FAO, 2006). Only 6% of Mexican farmers are considered apt to successfully enter the agro-food value chain, which leaves 94% of them marginalized and often unable to access markets, due to lack of profitability, innovative capacity, droughts, limited access to water and credit, dependence on increasingly expensive inputs, etc. (Gravel, 2009, p. 114). Moreover, less than 1% of the

Mexican food industry produces 80% of all exports, which highlights the important imbalances that exist within this sector (Otero, 2011, p. 391).

The opening of markets, combined with rapid urbanization, has had important repercussions on internal and international migration processes (FAO, 2006; Barnes, 2009; Browning, 2013) and on farming practices in Mexico. Despite numerous claims to the contrary during NAFTA negotiations, free trade agreements contributed to migration processes, particularly towards the US, as peasants face the harsh reality of an open market economy in which capital-intensive technologies are prioritized. On the one hand, many small-scale farmers are unable to compete in this emerging global market and are often under pressure to leave the countryside in search of a better life, creating what Otero (2011) describes as the loss of Mexico's 'labor sovereignty' (p. 391); on the other, migrants' families seem to be inclined to abandon *traspatio* production to turn to purchased foods (Gravel, 2009). Indeed, migrants' wives, with an increased access to fluid incomes such as remittances, tend to privilege 'la facilidad' (ease) and put in question the necessity to continue *traspatio* production (Sanchez, 2011, p. 41). This exposes them and their families to greater nutritional deficiencies, particularly children and mothers (Gravel, 2009; Sanchez, 2011). In 1993, Bain predicted changes in home garden production habits, because of new generations preferring purchased goods to home-grown products (1993). Indeed, store-bought produces are often in the popular imaginary as safer, of greater quality and as a sign of higher socioeconomic status (Interview Aragon Ibañez). At the same time, the gradual expansion of international goods on the Mexican market and increased demand for these industrial processed foods have also contributed to the progressive abandonment of traditional and smallholding farming practices (Gravel, 2009; Sanchez, 2011), including *traspatio* agriculture. Bain (1993) considers that knowledge and techniques were starting to be lost prior to the 1994 implementation of NAFTA through the heavy economical, cultural and ideological influences of the capitalist system. Mexico, contrary to the US and Canada who have kept protectionist barriers on their agriculture industries, had started unilaterally to open up its economy as early as the late 1980s, leading to a disarticulation of its food sector and socioeconomic polarization (Otero, 2011).

Trade liberalization has caused significant changes in Mexico's import and export behaviours (Barnes, 2009). The opening of markets has pushed the country to become increasingly inclined to import products that are heavily subsidized in the US, a situation that contributes to food insecurity. High-value fruit and vegetable production for exportation has surpassed that of lower-value food grain for the domestic market (Otero, 2011). Barnes (2009) estimates that soya, wheat, corn and rice imports almost doubled between 1994 and 2001, following NAFTA. The United Nations' (UN) FAO state that a country is 'dependent' when its imports exceed 25% of its national production. Basic foodstuffs imports in Mexico exceed this indicator, evaluated at 40% of national production in 2008 (Gravel, 2009, p. 121). Corn imports have increased from 7 to 34% of national demand between 1994 and 2011 (Massieu Trigo and Acuña Rodarte, 2015, p. 77), which highlights the impact of free trade agreements such as NAFTA on the country's food security. For example, the United States' increasing production of corn-based ethanol in 2006, combined with inflation in oil prices, energy and fertilizers, has had important repercussions on corn prices and food security in Mexico, triggering what we now know as the 'corn crisis' (Otero, 2011; Massieu Trigo and Acuña Rodarte, 2015). Food dependency is an important obstacle to food security (and sovereignty), for the loss of control over production leads to increased vulnerability to external shocks for a population that is increasingly dependent on the purchase of food. Indeed, Otero (2011) considers that Mexico's households spend on average close to 35% of their income on food, which is conspicuously higher than its NAFTA counterparts, Canada and the US, for which households' food budgets represent 11 to 12% (p. 388).

These processes have thus had important repercussions on Mexico's food security. Over 70% of the country's adult population was considered to be overweight or obese in 2012 (*Secretaría de Salud*, n.d., p. 17) – a phenomenon directly related to the increased consumption of processed food – with the lowest rates found in the states of Guerrero, Oaxaca and Chiapas (García, 2012). Paradoxically, the *Consejo Nacional de Evaluación de la Política de Desarrollo Social* (CONEVAL, National Council for the Evaluation of Social Development Policy) estimated that close to 24% of Mexicans did not have access to an adequate diet in 2010 (TO, 2015, no page). The most food insecure states are

located in the south of the country (Michoacán, Guerrero, Puebla, Tabasco, Oaxaca), with 30-40% of the population having low access to food (FAO, 2015a, p. 24). Food sovereignty is considered to be one of the most vulnerable ‘rights’ in Mexico, and political will is necessary to secure it, as agricultural policies ‘robbing’ citizens of the power to understand and decide what to consume are at the center of this issue (“Food sovereignty”, 2015, p. 3). As discussed previously, the private sector has been prioritized in the country’s agricultural development plan, putting issues of small-scale agriculture on the back burner in the sphere of public policy and contributing to a worsening of the population’s health. Moreover, as stated previously, changes in the agricultural landscape and the abandonment of *traspatio* production led to a nutritional transition in Mexico, characterized by an increased consumption of processed and calorie-dense commercial products. While important strides have been made in the area of agriculture and public health, such as a tax on sugary drinks, the installation of water fountains in schools and the prevention of mass cultivation of transgenic corn, much remains to be done in order to deal with conflicts of interest between the Mexican population, the government and the corporate sector (“Food sovereignty”, 2015).

Mexico’s Land Tenure System

Since the first half of the 20th century, land tenure in Mexico has been classified as either private or public (community-based), the latter belonging to the ‘social sector’, and usually acquired by landless peasants through a state land grant. The most common type of communal land tenure is the *ejido*, which is based on three attributes that define its ‘fundamental identity’: “a communal and participatory form of governance; a livelihood strategy that is agrarian or forest-based; and an equitable distribution of resources” (Barnes, 2009, p. 398). Though the term *ejido* was introduced in Mexico during the colonial period, it took its current meaning in Article 27 of the 1917 Constitution, following the Mexican Revolution (Barnes, 2009; Rodriguez, 2012) and years of struggles by indigenous and peasant forces, among others. The land is usually divided in parcels of less than 5 hectares and occupied by individual family farmers (Roy, 2014). The governance in *ejidos* is the responsibility of a locally-based governing ensemble

constituted of the *Asemblea* (General Assembly), the *Comisariado* (Commission) and the *Consejo de Vigilancia* (Supervisory Council). These three governing bodies are all constituted of *ejidatarios* (all official *ejido* members), who are usually men (although there has been a reported increase in female membership since the 1970s) and elders (Barnes, 2009). *Ejidatarios* thus have access to usufruct rights while property titles remain in the name of the State (Gravel, 2009), which conserves expropriation rights when needed for public infrastructures, natural resource conservation or exploration, etc. For the first time since colonization, these lands were thus recognized as charged with ‘social functions’, used as tool for channeling government policy, as opposed to strictly being economic factors of production (Barnes, 2009). The distribution of resources between private and social land tenure has historically been inequitable. Indeed, while it represents a very high percentage of production units, a very low proportion of the State resources such as capital, infrastructures and equipment is allocated to the social sector, which is also disadvantaged in terms of soil quality and state irrigation services (FAO, 2006; Browning, 2013).

The 1982 economic crisis put the Mexican government under pressure from lenders and international financial institutions to adopt the neoliberal agenda, including the opening of its market to trade and foreign investors and austerity measures (Muñoz-Martinez, 2001). It was in 1992, under heavy neoliberal reforms and in preparation for NAFTA, that legislation was planned for a fundamental transformation in Article 27 of the Constitution, allowing for *ejido* land to be converted to private ownership rights (FAO, 2006; USAID, 2011). Privatization is only possible in particular zones and under specific circumstances, one of which being that the majority of *ejidatarios* agree with the certification process. In 1993, the *Programa de Certificación de Derechos Ejidales y Titulación de Solares Urbanos* (PROCEDE, Program for the Certification of Ejidal Rights and Urban Land Titles) was launched, to which participation was voluntary. While it was expected that *ejidatarios* would adhere en masse to the program and chose to privatize their lands, this is not what occurred. In spite of this constitutional reform, more than half of Mexico’s lands remained, until recently, under community-based tenure (Barnes 2009). Rodriguez (2012) states that 9% of the communities have decided not to

participate, and only 15% have secured *dominio pleno* (complete transition from communal to private land ownership) for their lands, as opposed to a partial privatization of individual parcels, residential plots or communal areas (p. 643). Particularly low privatization rates are observed in the southern pacific states of Chiapas, Oaxaca and Guerrero (Barnes, 2009; Roy 2014). This variation in certification rates can be explained by the cultural value that is associated with this type of land tenure; indeed, communal lands are considered by many as a way of life and core element of *ejidatarios*' identity, not only a commodity to sell (Rodriguez, 2012). If the economic sustainability of *ejidos* is subject to debate, it has represented a way of pooling resources, organizing and strengthening communal identity for many Mexican communities.

Gravel (2009) considers that these changes may affect people's capacity to innovate and access inputs and capital, as the State is technically charged with these roles under *ejido* land tenure. It is however unclear how these tradeoffs truly affect peasants' lives; the distribution of resources to social forms of land tenure has historically been proportionally low, as discussed previously, and *ejidatarios* have been repeatedly subject to expropriation to facilitate urbanization and tourism (Rodriguez, 2012). Moreover, Rodriguez (2012) states that Article 27 represents an obstacle to participate in the market economy for land and commodities and hinders partnership opportunities with parties outside of the community. Fieldwork observations suggest that TO participants who do not have private properties have lesser access to federal resources (under the form of infrastructure such as chicken coops and raised beds), an observation that is unsurprising in the context of the neoliberal reforms that the Mexican government has implemented. It is also important to note the gender dimension of such processes; indeed, most women have not been direct beneficiaries of these land reforms, for traditional customs and practices (*usos y costumbres*) as well as a long history of machismo prevents most of them from obtaining land rights (USAID, 2011). Nevertheless, Barnes (2009) states that *ejidos* may be subject to higher privatization rates in the future, as migration processes, loss of traditional knowledge and urbanization keep pressuring elderly farmers. The link between land tenure systems and food sovereignty will be discussed in Chapter 7.

Oaxaca

The state of Oaxaca is situated in the southern part of Mexico. It is bordered on the south by the North Pacific Ocean and, from North West to East, by the states of Guerrero, Puebla, Veracruz and Chiapas. Along with Chiapas and Guerrero, Oaxaca has been particularly affected by the austerity measures imposed by the neoliberal agenda, fueling major migration processes towards the northern states (and the USA) where large-scale irrigated farms were favored (Parrado and Flippen, 2005). Oaxaca faces important challenges in terms of development, ranking low on many conventional indicators compared to most other states of Mexico. It is the third poorest state in the country, with 67% of the population living under the poverty line (*Secretaría de Finanzas*, 2012, p. 21). It also ranks third in terms of level of marginalization, with 23% of its population living in rural zones and 45% being of indigenous origins. Oaxaca holds the largest number of indigenous growers, a population that has been particularly marginalized through the neoliberal process (Browning, 2013). The population is scattered through the mountainous landscape, the majority of agglomerations gathering less than 250 habitants, accentuating the challenges in terms of access to infrastructure and public services such as communication, transportation, electricity and water (*Secretaría de Finanzas*, 2012, p. 21). The infant mortality rate is 18/1000, the population has an average of 6.9 years of education and the illiteracy rate is 16% (*Secretaría de Finanzas*, 2012, p. 21), placing Oaxaca considerably far behind the national averages of, respectively, 12/1000, 13 years and 4.9% (Central Intelligence Agency, 2015, People and Society section). Of its 570 municipalities, 418 are still under *usos y costumbres*, where the land remains communally owned (*Secretaría de Finanzas*, 2012, p. 21). The state is highly dependent on federal resources; 96% of its budget comes from the federal government (*Secretaría de Finanzas*, 2012, p. 21). This situation reduces the degree of autonomy of the state government, as the resources are usually targeted and assigned to specific governmental programs.

Oaxaca has an area of 9379 million hectares, 16% of which are used for rural agricultural production and 25% for livestock (*Secretaría de Finanzas*, 2012, p. 22). Although corn

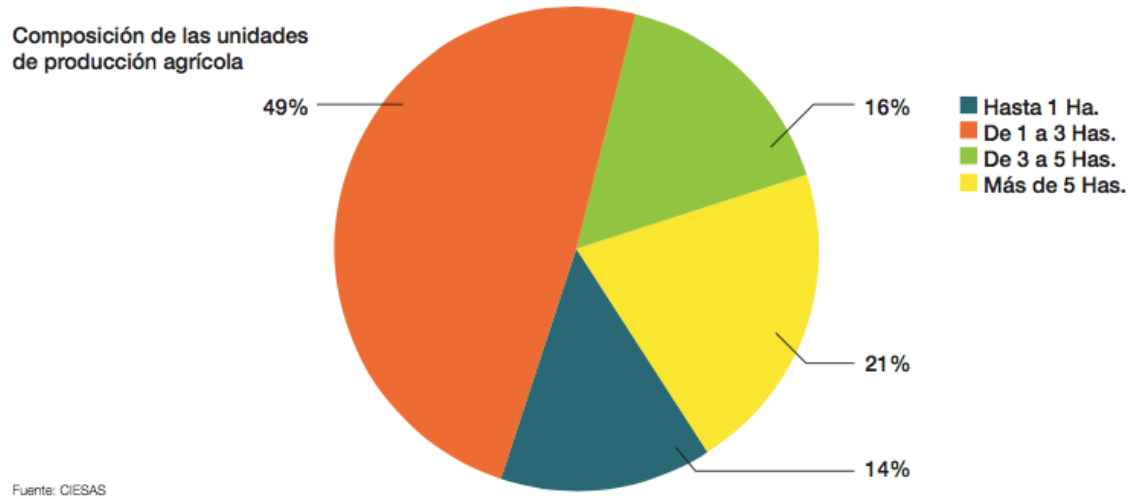
imports have substantially increased since 1994, it remains widely cultivated in the state. Indeed, corn and coffee are the two most widely cultivated products, followed by sugar cane and beans. Agriculture in Oaxaca is mostly seasonal and is characterized by low use of modernized techniques when it comes to water usage, rendering it vulnerable to droughts and floods. In the region of Valles Centrales, where the TO initiative takes place, the months of November, December, January and February are particularly subject to water shortages, a key factor that needs to be taken into consideration in the design of sustainable and reliable food systems (TO, 2015). The government of the state of Oaxaca estimated that there was an annual deficit of 39.6 million m³ of water in the municipalities surrounding the city of Oaxaca de Juárez in 2012; therefore, knowing that modernizing 10 thousand hectares of agricultural land can allow for the watering of 30 million m³ annually, we can appreciate the importance of improving the water system and consequently the productive capacity and yield of agricultural producers in order to create sustainable food systems (*Secretaría de Finanzas*, 2012, p. 21). While the state government focuses on the term ‘modernization’ in its 2012 strategic plan on agriculture (*Plan Estratégico Sectorial Agropecuario, Forestal y Pesquero: Subsector Agrícola*), there are no specifics as to which techniques should be used and which could be most suitable to the realities of the families. Regardless of the method that will be used, it is clear that water management is an issue that needs to be addressed in order to ensure the sustainability of food systems and the efficient use of the resource.

As mentioned previously, Oaxaca is amongst the most food insecure states in the country. CONEVAL evaluates that 36.1% of its population had deficiencies in access to food in 2014 (CONEVAL, 2015). Citizens of the state of Oaxaca use more than 70% of their income on food purchases, an investment that has still been insufficient in eradicating food poverty in the city (Cuevas, 2013, under *Trabajo y Dedicación*). The culture of corn, the most important produce both culturally and in terms of cultivated area, varies greatly when it comes to yields, annual growth and production volume, with a deficit (in feeding its own population) of 160 thousand tons in 2011 (*Secretaría de Finanzas*, 2012, p. 23). This is considered to be the result of different external and internal influences that increased the vulnerability of corn producers: climatic events and international prices, but

above all, internal limitations in terms of means and capacity of production, commercialization and access to global markets (*Secretaría de Finanzas*, 2012).

The agricultural subsector is fragmented in small units of production; indeed, Figure 6 shows that agricultural units of 5 hectares or less represent 79%, while those of up to 3 hectares represent 63%. In 2010, the *Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación* (SAGARPA, the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food) estimated that, for the spring and summer seasons, approximately 63% of the area of Oaxaca that received agricultural support through the *Programa de Apoyo al Ingreso Agropecuario* (PROCAMPO, the Program of Support to Agricultural and Fishing Revenues) were units smaller than three hectares, representing 86% of the producers (*Secretaría de Finanzas*, 2012, p. 22). Smallholdings in Mexico are generally associated with subsistence farming, in which family members are usually intensively involved and act as important labor resources. Oaxaca is one of the states with the highest number of these farms, as there is an important correlation between regions of high marginalization and poverty and subsistence farming (SAGARPA, 2015a). Rodriguez (2012) considers that while the government is quick to assume that food insecurity is due to a lack of productivity in the rural sector, the country's incapacity to meet its own food demands could rather be associated with the blatant over exploitation of natural resources and bad economic policies. This can be linked to the progressive liberalization of markets and the associated repercussions in Mexico: decades of neglect towards the small-scale agricultural sector, the prioritization of export-oriented and industrial production and an increasingly import-dependent food system.

Figure 6. Breakdown of the size of agricultural production units in Oaxaca



Source: Secretaría de Finanzas, 2012

3.2 Case Study: The Traspatio Oaxaqueño Initiative

Towards an Alternative Agro-Food System in Oaxaca

TO is an initiative that started in 2012 in the village of Reyes Mantecón and that consists of revitalizing *traspatio* production in the Oaxacan region of Valles Centrales (TO, 2015). Despite the lack of support for *traspatio* agriculture, approximately 2000 families are still engaged in this type of production in the state of Oaxaca (“*Piden a Sagarpa*”, 2014). Aragon Ibañez and Diego Cervantes, respectively from local organizations *Comité de voluntarios para la reforestación y protección del medio ambiente* (COVORPA, Volunteer Committee for the Reforestation and Protection of the Environment) and *Caravana Cultural Tradición y Arte de Oaxaca* started this initiative with a group of approximately 50 women. The council, the *Consejo Oaxaqueño del Sistema de Producción de Traspatio* (COSPT, Oaxacan Council for the Traspatio Production System) is constituted of these two initial leaders and initiators and López Gómez, a formal member of the leftist opposition party *Partido de la Revolución Democrática* (PRD, Democratic Revolution Party). M. López Gómez is the secretary general for the

state of Oaxaca at the nationwide peasant union *Central Campesina Cardenista* (CCC) and is also involved in the organization *Union Campesina Oaxaqueña* (UCO, Oaxacan Peasant Union). A total of approximately 1200 women are now involved in the TO initiative, which is expected to grow. Indeed, various activities have been organized to diffuse the information and experiences of the participants to other communities. Leaders try to attract a greater number of young people from urban neighborhoods in the capital city of Oaxaca, in particular (informal conversation with Aragon Ibañez, May 2015).

TO's mission statement is to fortify food production systems in Oaxacan communities in order to improve food security and provide a strategic space for maintaining and promoting cultural identity (TO, 2014). The primary objective of the initiative is to contribute to the food security and overall quality of life of families in situations of economic vulnerability through the production of *traspatio* vegetables and poultry (TO, 2015). The targeted population is thus situated in urban, peri-urban and rural zones of the region of the Valles Centrales region of Oaxaca (TO, 2015). The participants are women in situation of social, economic, cultural and environmental vulnerability who dedicate themselves in large part to the transformation and commercialization of *traspatio* products. They must be interested and motivated to participate in the process of diagnosis, design, planning and validation of a productive and adaptive model for food and nutritional security (TO, 2015), a condition that is ensured by the formation process itself: the initiative grows through interested participants reaching out to the leaders rather than the contrary, on a voluntary basis. The different individuals and villages thus become involved in a very informal way, through word of mouth.

The initiators and promoters of TO also have a medium term objective, as they hope to generate a model that could be used to institutionalize support for *traspatio* agriculture at the national level. A methodological guide was produced during the summer of 2015 with the support of SAGARPA's *Inca Rural* program, which aims at helping development actors design, execute and evaluate projects that prioritize marginalized regions, and to allow them to better identify opportunities to ultimately improve living conditions (SAGARPA, 2015b). The methodological guide that was produced is meant to provide an

adaptive and productive model for nutritional and food sovereignty, a model that allows for decisions to be made based on the nutritional assessment and the agroecological reality of the families and for a transfer of technological innovation, the reinforcement of human capital and the creation of strategic alliances (TO, 2015). It was designed with the help of a set of experts: an agronomist, an economist, a sociologist and a nutritionist (the identity of these experts remains unknown at the moment). It is built on the four following characteristics (or objectives): it needs to be replicable, sustainable and convincing, and to foster empowerment and social impact (TO, 2015). The model has to be simple and flexible enough to be replicable and transferred to other communities and families, with other agroecological conditions. It needs to be based on the use of sustainable technologies and methods, meaning that it should be integrated to the reality of the families to facilitate their adaptation to climate change, increasing their independence and self-sufficiency. It should be convincing so that families are willing to implement this model to ensure that the important amount of initial work by the facilitator actually contributes to making a sustainable and significant change. Finally, the model needs to stimulate empowerment and social impact by ensuring that it 1) is culturally appropriate, 2) is based on local/household capacities and autonomy and 3) promotes gender equity and participatory processes. This document was a key source of information that helped to deepen the analysis provided in this thesis.

Structure and Stakeholders

The initiative is structured around the following key stages (TO, 2015):

- Phase 1: Formation of municipal committee and gender equity workshop
- Phase 2: Workshop on organic fertilizer and production of vegetables and poultry
- Phase 3: Cooking workshop - marmalade and wholegrain cookies (*galletas integrales*)
- Phase 4: Sale of surpluses
- Phase 5: Regional forums

This model is provided in the methodological guide, which was given to me by Diego Cervantes in the summer of 2015, based on the work that has been done since 2012. While they are not all included in the official model, participants mentioned receiving workshops related to: soil preparation, fabrication of organic insecticides, seed conservation, harvesting, food conservation, value-added production and commercialization. Additionally, each group meets regularly (as often as once a week, in Vicente Guerrero) to discuss various matters related to the initiative. The frequency of group meetings is determined by the group itself and varies according to the needs. Council members may also inform the group of the necessity of meeting up for federal project opportunities and applications.

A number of stakeholders are involved. From individuals to larger entities, the actors have different roles within the initiative. Participants are the people (mostly women) who receive support from TO in the form of human or physical resources. From these participants, a number are elected to become municipal committee members prior to the beginning of activities (Phase 1). The municipal committee members organize meetings and ensure that all the participants are invited. They play an important role, as they are responsible for understanding the needs of the group and of communicating them to the council. As mentioned previously, the COSPT is currently constituted of Aragon Ibañez, Diego Cervantes and López Gomez. They are the leaders of the initiative and are in charge of providing TO support to the participants as well as helping them to access additional resources through specific federal programs (example: filling out forms and applying to acquire ecological ovens). The majority of the TO funds come from the three leaders' respective organizations; COVORPA, *Caravana Cultural Tradición y Arte Oaxaca* and UCO thus represent the first source of financial resources for the initiative. The CCC, a civil society association working for the rights of marginalized populations (small producers, rural women, indigenous women, marginalized communities, immigrants, etc.), plays a key role. Through the involvement of López Gomez, this organization allows the initiative to gain access to the federal political sphere. This issue will be further discussed in Chapter 5, as will be its link to the Mexican opposition party,

the PRD. Finally, the federal government, more specifically the *Secretaría de Desarrollo Social* (SEDESOL, the Ministry of Social Development) and SAGARPA, represent the second source of funding with the support that is provided to participants through specific programs.

Study Areas

The sociodemographic data of the villages of Vicente Guerrero, San Nicolás Quialana and Reyes Mantecón and their respective municipalities are presented in Table 3 and 4 below. The following is a more detailed description of the studied villages based on these sociodemographic data as well as fieldwork observations and interviews.

Reyes Mantecón

As mentioned previously, the TO initiative started in the village of Reyes Mantecón, hence the importance of conducting interviews in this specific location. It is situated in an urban zone and had a population of 3,962 in 2010, with a total of 1,021 households (SEDESOL, 2013a). It is the only study area that has a very low marginalization indicator (SEDESOL, 2013a), an observation that is reflected in the municipality's sociodemographic indicators (table 3). Reyes Mantecón thus has a total of 623 people of 15 years of age or older with incomplete basic education, 1,217 people with no access to health services and 8 households without access to electricity in 2010 (SEDESOL, n.d.a.), numbers that place it in an advantageous position compared to San Nicolás Quialana and Vicente Guerrero. Contrary to the other two villages, it is located in a privileged zone in terms of access to water, with a nearby water source (*ojo de agua*, interview #10). A total of 49 households were not connected to the public water system in 2010 (SEDESOL, n.d.a). The group of Reyes Mantecón was formed in 2012 and holds approximately 70 women. The municipal committee was elected and formed at the very first meeting. They are in charge of inviting all the women to the meetings. Five women were at Phase 4 of the initiative, producing crystallized fruit, *tostadas* (hard corn tortillas), *atole* (corn-based beverage) and *crema de mezcal* (alcoholic fruit-based preparation).

These value-added products are sold at the weekly market in Reyes Mantecón as well as at specific events to which TO participates. The participants had received support from the federal government through the ecological oven program. The village of Reyes Mantecón remains under the *ejidal* land tenure system, where *ejidatarios* have permanent access to a residential piece of land and have temporary access to agricultural lands. As interviewee #8 explained, the right to agricultural land is attributed for two years with possibility of renewal.

Vicente Guerrero

Vicente Guerrero is also situated in an urban zone and had a population of 13,794 in 2010 (SEDESOL, 2013b). It is the study area that is closest to the city of Oaxaca. It is the group that was most recently formed out of the ones that were interviewed, their first meeting having been held in March 2014. It was classified as highly marginalized in 2010 (SEDESOL, 2013b), with 5,046 people of 15 years of age or older having incomplete basic education (i.e. who have not achieved the standard academic progress of a 15 year old) and 6,121 people without access to health services (SEDESOL, n.d.b). Out of 3,161 households, 337 did not have access to electricity (SEDESOL, 2013b) and 3,007 were not connected to the public water system in 2010 (SEDESOL, n.d.b). It is a village that is particularly affected by water shortages; the interviewees that were in fact connected to the public system mentioned having access to running water for only one hour, twice a week, as of March 2015. The others use reservoirs to collect rainwater, increasing their vulnerability to water shortages during the dry season. While there was interest for another group to be formed in Vicente Guerrero, only one officially existed at the time of the field research and held approximately 25 participants. The group's municipal committee was formed through an election during the first group meeting. Most of the participants were at Phase 3 of the initiative, meaning that they had received all the workshops but had not yet entered the value-added production and commercialization phase. They had received support from the federal government through two specific programs: the henhouses (SAGARPA program) and the raised beds/tables. The land tenure system started to be converted to private properties in 2000,

as there were many problems of land theft between residents and from local authorities. As mentioned by many participants of Vicente Guerrero, the frequent changes within the village's governing bodies (particularly the *Comisariado*) created insecurities and uncertainties for *ejidatarios*, whose access to land was very precarious (interviews #11, 12 and 13). Interviewee #11 mentioned that while the properties of Vicente Guerrero have been privatized, other locations within the municipality of Villa de Zaachila are still under the *ejidal* system and subject to land theft and illegal land trades involving the president of the assembly. This constitutes the primary reason for the residents to seek conversion towards private properties in Vicente Guerrero.

Table 3. Comparison of sociodemographic indicators of the municipalities and state of Oaxaca in 2010

Sociodemographic indicator	Villa de Zaachila	Zimatlán de Álvarez	San Bartolo Coyotepec	State of Oaxaca
Population	34,101	19,215	8,684	3,801,962
Number of individuals per home	4.2	4.1	3.8	4
Total of homes	8,143	4,714	2,231	934,471
Percentage of homes ruled by women	28	29	28	26
Percentage of population living in moderate poverty	55	39	33	38
Percentage of population living in extreme poverty	26	26	3.5	30
Percentage of population with educational deficiencies	26.2	28.3	12.1	30
Percentage of population with no access to health care	35.8	36.3	22.9	38.5
Percentage of population with social security deficiencies	85.9	87.6	59.5	79.4
Percentage of population with food deficiencies	20.7	19.1	18.1	26.4

Source: SEDESOL, n.d.a, n.d.b, n.d.c; CONEVAL, 2012

Table 4. Comparison of marginalization indicators of the locations and state of Oaxaca in 2010

Indicators	Vicente Guerrero	San Nicolás Quialana	Reyes Mantecón	State of Oaxaca
Percentage of population with incomplete basic education (only 15 years and older)	37	35	16	-
Percentage of population with no access to health services	44	24	31	-
Percentage of households with no access to electricity	11	Less than 1	Less than 1	5
Percentage of households not connected to public water system	95	9	5	24
Percentage of households that have dirt floors	18	41	4	-
Percentage of households that do not have a refrigerator	40	33	8	-
Marginalization indicator	High	High	Very low	Very high

Source: SEDESOL, 2013a, 2013b, 2013c; Consejo Nacional de Población, 2011

San Nicolás Quialana

San Nicolás Quialana is a much smaller village that is situated in a rural zone and had a population of 1,042 in 2010 (SEDESOL, 2013c). The TO group was formed around the same time as Vicente Guerrero in March 2014. It was also classified as highly marginalized in 2010 (SEDESOL, 2013c) and is affected by water shortages. Out of 266 households, 23 were not connected to the public water system (SEDESOL, 2013c), which was running every second day for a few hours at the time the interviews were conducted in February of 2015. A total of 360 people of 15 years of age or older had incomplete basic education in 2010, 246 people did not have access to health services and 2

households did not have access to electricity (SEDESOL, n.d.c). There is one large group of approximately 70 women participating in TO. While the two other villages' municipal committees were formed by election, this is not the case for San Nicolás Quialana; the president has rather been named by a PRD deputy and she, herself, chose her daughter as vice-president (to be discussed in Chapter 7). The decisions are made by the whole group during meetings to which all of the participants are invited through the community speaker (interviews #3 and 5). The president, however, usually decides the date and time of these meetings. Most of the participants were at Phase 3 of the initiative, some women moving towards the value-added production and commercialization phase. Some participants had, for example, produced *crema de mezcal* and were discussing the idea of organizing and participating in a weekly market held in Reyes Mantecón (interview #1). The group had thus far received support from the federal government through the ecological oven program. A total of approximately 50 ovens were distributed to participating women on January 28th 2015 (participant observation). The men (husbands, sons, brothers) participated to this event to unload the ovens from the delivery truck. The land property system has been in the private certification process for approximately one year.

Chapter 4: Empowerment of Women from Economically Vulnerable Families

As discussed in the conceptual framework, whom we seek to empower within the food sovereignty framework remains unclear. While there is a generalized understanding of the type of food producers, distributors and consumers that are marginalized through the corporate food regime, the 'peoples' whose rights we seek to defend represent somewhat of a large group, one that may gather various interests and priorities. Because their identities can be subject to interpretation, it is important to clarify which actors are central to this specific research. Women's empowerment and gender equality have been identified as necessary in order to promote food sovereignty that is truly based on food

justice. As highlighted in the Social relations section, gender discrimination and violence against women are associated with malnutrition, poor education and access to productive resources and household-related burdens; these limitations have in turn caused women to represent the majority of the world's poor and informal workers. In this sense, and with respect to TO's objectives, women from economically vulnerable families have been identified as the primary actors we seek to empower by increasing their food autonomy and bettering their livelihood conditions. Agricultural development in Mexico has led to the prioritization of large-scale industrial producers. It may be unrealistic at the moment to expect TO, an emerging, barely two year old initiative, to deeply challenge the neoliberal model around which the Mexican food system is shaped. However, the examination of its objectives and approach and the different actors' perceptions can help us better understand how TO may question the existing system by proposing a viable (or not) alternative pathway to food production; one that allows women to have the tools to increase their own food security and, potentially, to contribute to local food production. Through this empowerment, TO can help them access a fairer space within the Mexican political agenda. Linking back to the second and fourth pillars of the IPC on Food Sovereignty, this research examines how the initiative may help women to collectively influence the distribution of resources and to gain greater access to these productive resources (or capitals). It also examines the question of trade and local markets, promoting policies to protect farmers from subsidized exports, food dumping and other downsides of the dominant agricultural trade model.

4.1 Access to Productive Resources

TO aims at empowering women from economically vulnerable families by increasing their access to productive resources. The initiative first and foremost seeks to revalue the role of women within (rural) food production (Interviews Diego Cervantes and Aragón Ibañez) by giving them the tools, the most important of which being knowledge and know-how, to regain control of their space. As discussed previously, the role of women is usually primarily constituted of unremunerated home-related activities such as *traspatio* production. TO council member Aragón Ibañez discusses that the objective is to use

woman's means and space (in this case, the *traspatio*) to convert her potential capacity to produce food into a possibility for empowerment and emancipation. The political and economic context of agricultural development in Mexico, he states, does not favor *traspatio* production, although it has always been part of the Mexican culture. This type of food production has always existed, and the abandonment of this practice and with it the loss of autonomy of a significant proportion of the Mexican population has been associated with the increasingly globalized food system. TO represents a way to value history and cultural traditions and to stimulate autonomous food production, to which the role of women is perceived as central.

TO is built so that the participants receive support through financial capital, under the form of physical resources such as seeds and raise-beds. Even more important is the reinforcement of human capital, as it constitutes a priority of the initiative, through trainings and workshops to share and build on existing knowledge and know how. One principle guiding TO is the fostering of social impact and empowerment by ensuring that it is based on local/household capacities and autonomy. The design of the model is done with the help of experts, ensuring that the information that is transferred to participating women is based on scientific and practical knowledge. Agroecology states that human capital is necessary for a productive use of traditional and modern scientific knowledge and skills to innovate. In that sense, the workshops and information sessions are central to the well-functioning of the initiative, as participants acquire the tools to create value chains from production to commercialization of their *traspatio* products. The participants acquire new skills and tools that are necessary to gain a higher level of autonomy vis-à-vis mainstream agro-food systems and increase their own food security. The learning process is therefore a cornerstone of TO. Indeed, the knowledge acquired is a human resource that will allow women and other participants to permanently regain the power that they historically had over their families' food security. In an era where energy prices will continue to fluctuate according to the market, consumers become increasingly vulnerable to food insecurity. The capacity to produce your own food with minimal external inputs and to potentially sell the products, thus generating additional income, therefore increases food availability and security. In turn, this can have an impact on the

overall health of the participating families and potentially surrounding communities, as better education may result in healthier choices.

The approach taken by the initiative when it comes to the building of human capital seems to have the desired impact on the participants themselves, for the knowledge gained through TO allows them to produce and transform their own food, a fact that is consistently mentioned as a central motivation to participate (Interviews #1, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16):

They give us the opportunity to get involved. You learn a lot of things. As I said my parents were farmers but they were cultivating corn and beans in very large pieces of land. Also, the soil before did not need as much preparation because it was not as damaged as now [...]. Now they are teaching us to plough the soil, how to prepare it, how to water it [...]. They are teaching us how to prepare a lot of things. Now we are learning how to produce to be able to sell [...]. We are learning to elaborate products [...]. It is innovating to know how to produce. You buy onion or garlic at the market but you have no idea how it is produced [...]. Everything we know now we did not know before and we realize how easy it is to produce and transform the products (interview #6).

The opportunity or the advantage is to learn. No one can take it from you. It will always stay with you. Before my plants would die I only had a few tomatoes, a few hot peppers [...] because of the soil preparation [...]. We have a privilege because in the supermarket products come and they have been harvested a week before, they lose some of their nutrients. To go and pick them here and cook them makes you proud and it is a privilege that not everyone has (interview #11).

The initiative leaders recognize that if TO is a way of supporting women by providing them with productive resources, the women's motivation and interest are the most important ingredient for it to be successful. Paradoxically, this is one of the difficulties that have been encountered by the leaders, as it requires a lot of effort to get the participants and their families to understand the long-term importance and benefits of the multiple trainings and workshops that precede the reception of physical or financial resources, as well as the many meetings held to discuss progress and future steps. In that sense, the group formation process (by people reaching out to TO coordinators rather than the opposite) ensures that the women who seek to get support are motivated and

keen to learn and participate. The growth of the initiative is therefore determined by people's desire to organize and the long-term empowerment by the successful creation of human capital.

Financial capital is a limiting factor for the participants as well as for TO leaders. In terms of coverage, there is a limit to the geographical reach as well as to the number of participants that can be involved, as the initiative is financed primarily by the council members' organizations (interview Aragon Ibañez and Diego Cervantes). For individuals, access to water becomes a financial issue, as most participants mentioned having to buy it in order to cultivate in their *traspatio*. The tradeoff between the water cost and the financial value (either by income substitution or direct sale of *traspatio* products) is unclear at this point, for it is difficult for the participants to evaluate. The issue of water availability could be solved by increasing the participants' access to physical capital under the form of specific infrastructures such as raised-beds or tables to preserve humidity. While these tools were provided to some participants, they were not accessible to all, as they were distributed through a governmental project that required proof of private land ownership (interview Diego Cervantes). This was also the case for the chicken coops, hence reproducing existing inequalities. Access to financial capital is a limiting factor at the value-added production stage as well, as not all participants have access to the necessary machinery. Many of the products that are made with corn (such as *atole* and *tostadas*) require an industrial grinder, which complicated the production process (interview #6).

4.2 The Impact of Gender Relations on Women's Participation

Gender relations have an important influence on women's participation. Both the participants and initiative leaders have identified the lack of time as a limiting factor and determinant for the participation of women and consequent success or expansion of TO. While the objective is to contribute to the empowerment of marginalized populations by primarily targeting women, this objective involves an additional challenge associated with machismo, which is still very influential in Mexican culture. Gender roles can

constitute an obstacle to women's participation since the training process is time-consuming and is added to the tasks that are "normally" attributed to them. The idea of women participating in activities outside the house is often seen as undesirable by husbands who may consider that the role of their wives is to stay home and take care of the house and children. The reinforcement of social capital between participating women, through municipal committees and events, and the idea of gender equity that the initiative puts forth can also be cause for tension as, again, Mexican culture tends to associate specific roles and social statuses to women.

The women who are involved seem to already be in (more) respectful and equal relationships. Out of 16 participants, 12 live in households with men and still participate in TO, and 10 mentioned receiving help from one or more men of the household for the manual work (preparing the soil, planting seeds, helping at specific events such as the unloading of the ecological ovens, etc.). Machismo is recognized as a reason why some women are not involved: "Sometimes women do not participate because of machismo. The husbands [...]. We do not have that problem (interviews #2). Another participant and a leader of TO state in their interviews:

It [the value-added production workshop] was open to everyone. Now we are only five or six who are taking the workshops. A lot of women say that they do not have time, because of the kids, **the husband**... The principal reason is the husband I think right? There are men that participate, for example they help their wives to plant and prepare the soil. But there are some that do not like it, they say that it is a waste of time. Like in everything. There are men that participate and some that do not (interview #6, her emphasis).

The theme is to revalue the role of women. But we cannot do it without men's participation [...]. We are looking for an integrated way. As much as possible, the men must participate and get involved in the themes. We consider that the *traspatio* is a space that belongs to the woman, but with the help of all the family. We are not saying that the woman must do all the work [...]. We have encountered situations where the man would say 'you're going again, you are losing your time, you have things to do' [...]. It is unconscious and cultural in our communities (interview Diego Cervantes).

Men also need to understand and support the objectives of TO and the positive repercussions that it may have on the household. As stated in the Social relations section, the empowerment of women and alleviation of gender inequalities have been shown to lead to better human development: it may result in improved women's nutrition, which is an important barometer for household nutrition and a country's development capacity. As mentioned in Chapter 1, a longer fieldwork could have allowed to include perspectives from other stakeholders such as husbands of participating women, non-participating women, husbands of non-participating women, etc. This data would have been very relevant and insightful, as it could have allowed to confirm or infirm the conclusions that are drawn relative to gender relations and their impact on TO participation.

4.3 The Creation of Social Capital

Another important objective of the TO model is the creation of strategic alliances, as leaders consider that they can allow participants to further contribute to local food security and production, to share knowledge and know-how, and to generate a bigger movement that may represent a tool for collective actions and demands. The initiative allows women at different scales (village, municipality, region and eventually country) to meet regularly and exchange on their experience in TO (ideas, methods, issues, successes, recipes, gender-related questions, etc.). Furthermore, the different types of networks that are created through TO can contribute to the initiative's secondary objective, i.e. to access the political sphere by demonstrating the positive results and generating model that could help institutionalize federal support for this type of agriculture and small agro-food projects. The initiative thus allows for the creation of the three categories of social capital: (1) bonding, through municipal committees, (2) bridging, between participants of different villages and municipalities, and with existing local producers, and (3) linking, between the TO initiative, local and regional organizations and political parties.

Bonding Social Capital

As stated in the literature on social capital, social networks represent an important tool and vector of change. Indeed, they allow for the coordination of mutually beneficial collective actions, which may, ultimately, influence the opening of market possibilities and the distribution of public resources. This is also true for women from economically vulnerable families: participating in local TO municipal committees and creating bonding social capital allows them to collaborate to overcome the challenges that they all face individually in accessing market opportunities. The interviews show that participating women perceived TO as a way to organize and collectively ask for support as a group; through the municipal committees and the TO council, which increase their chance of accessing resources compared to individual endeavours (interviews #1, 4, 6, 8, 11, 12). Moreover, studies have demonstrated that bonding social capital between women can contribute to building their confidence and leadership skills. Accordingly, Diego Cervantes states:

It is very important for me that they put themselves out there and speak in public. The events allow them to exchange on experiences, which is very interesting because it gives them strength in various ways. To speak in front of other people is hard. To take the microphone and talk to everyone. It gives them security in all aspects of their lives. Through all the workshops, they become informed and aware of the importance of participating (interview Diego Cervantes).

The TO leader thus considers that the creation of networks, through municipal committees and regional/national events, allows women to exchange on gender-related issues and give them the confidence to continue to reaffirm their role within the household, including the *traspatio*.

Bridging Social Capital

The structure of the initiative also allows for the creation of bridging capital, through networks between women from different participating villages and municipalities, and potentially with local corn producers. Literature on agroecology states that the creation of

social capital with the recognition of cultural identity, the use of participatory methods and the creation of farmer networks may enhance solidarity and stimulate the exchange of innovations and technologies. More specifically, bridging social capital has proven to increase the pool of resources and tools such as information, inputs, services and markets. Between villages and municipalities, information and knowledge is transferred as groups that are at further stages of the initiative share their experience (mostly at the value-added and food conservation stage). Interviewee #11 states: “every time there is a reunion we learn new things, we exchange ideas on what works and what does not work”. Other TO participants concur:

I like to learn, so I talk with the technicians. I tell them what I would like to learn, and when it is possible for them they come when they have the time. I get all the people, I tell them that the technician is coming if they want to come, and if they want to learn they do [...]. It puts me in contact with people. You go to events and people ask how you did it, what is in it, if it is good food. It puts you in contact with people outside of the community (interview #10).

When more people are added to the group we do the workshops again, with everyone that has already received them. They say it is better like that. For example, I do not know how to read and it helps to have people who do, who can answer my questions (interview #13).

Moreover, some interviewees see TO as an opportunity to network with women of other villages and municipalities and to organize around marketing opportunities for their *traspatio* products. For example, the president of the municipal committee of San Nicolás Quialana is making plans to join the women of Reyes Mantecón in the weekly market that is held every Sunday (interview #1). Diego Cervantes, representing female producers of TO, states that many cases of success generate interest around the city of Oaxaca. Two regional/national events have taken place so far (March 2014 and December 2014), to which people from other states were also invited. The last event brought together a total of approximately 1800 people. The objective of these events is to present the initiative and related success stories and to share knowledge and experience with the hope of stimulating similar projects in other regions of Mexico. These experiences at the local, municipal, regional and national levels have the potential to generate a bigger and more solid movement while creating spaces for people to discuss their experience with TO and

issues of food security and food sovereignty. As mentioned previously, this type of sharing is considered to be necessary for groups and communities to ‘get ahead’ and to achieve collective objectives.

Linking Social Capital

By creating a large social network, the leaders of TO wish to address the lack of attention given to women’s contribution to food production in Mexico and to generate a greater recognition of their role within the political agenda. The role of linking capital is central to this objective. As stated in the conceptual framework, power relations and politics are issues that need to be addressed when discussing natural resource management, access to the four types of capitals and food sovereignty. At the national level, the absence of a generalized support system for *traspatio* production, to which women are central actors, is an issue that is targeted by the initiative’s council. Aragón Ibañez discusses:

The State needs to contribute. With what we are doing, we have to get the government to invest money in the initiative. This is the direction that we are taking. The government is obligated to fund the villages’ food sovereignty. We are generating a model, but we do not think that we are the ones who should fund the growth. We cannot. We are generating a social force to oblige the state government, through an objective and sensible approach, to invest money in *traspatio* programs. At SAGARPA, there is the program *Agricultura familiar, periurbana y de traspatio*. It was just created in 2014 and operates with a very small covering. Here in Oaxaca, it helps no more than 6 to 8 municipalities. Although it is a national program, it had a budget of 20 million pesos for these 6-8 municipalities. We propose that this program should have a state coverage and should support all municipalities (interview Aragón Ibañez).

As discussed previously, a methodological guide has been produced to be able to easily reproduce the project while adapting to the reality of each family and region. Replicability is indeed one of the four characteristics of the TO initiative. The leaders have explicitly sought ways to create a model that is simple and flexible enough to be transferred to other communities with different agroecological conditions. Aragón Ibañez sees the creation of this model as an important step that will give the federal government an opportunity to recognize the role of women in food security and *traspatio* production,

and a rather simple tool to support food sovereignty initiatives in any municipality, region or state.

Linking capital is key to accessing the political sphere, for it has the potential to increase the influence of a group on formal institutions and decision-making processes. In that sense, the participation of López Gómez and his role within the CCC is central; his involvement allows TO to have exceptional access to political authorities. Based in good part on his network and political involvement with the PRD, departments such as SAGARPA are familiar with the work that is being done after only two years of being introduced around the city of Oaxaca. The leaders recognize that this is an opportunity that is uncommon for such a young initiative:

Pavel invited us to get involved with the CCC, as Secretary General [of the state of Oaxaca] [...]. They can strengthen us [TO] in various ways [...]. It is a national organization that has a lot of political weight and helps us a lot for issues of management. Accessing public resources is very complicated. Having a well-elaborated project proposal is not a guarantee that we are going to get the resources [...]. We also feel like we are very involved with the philosophy and the way that they do things at the CCC. The national leader Max Agustín Correa is very admirable. He is the National Secretary General. The CCC works in almost all states in many social themes related to the countryside [...]. Max is a man that supports us a lot, that likes the idea of the TO initiative. Thanks to him we have been able to present the initiative to SAGARPA. They already know us perfectly. We could not have had these opportunities alone. This can open the door to public resources (interview Diego Cervantes).

One of the strategic goals of linking capital is thus to increase the negotiation capacity of TO participants by building a collective network and to be able to influence budgets and priorities within the political space, an objective that may arguably be easier to attain with the creation of such links with influential organizations and individuals. The CCC thus holds a crucial role in the initiative's access to the political sphere (most members of this organization are related or have been related to the PRD). For example, the Secretary General of the CCC at the national level, Max Agustín Correa Hernández, announced before the elections in 2012 that the organization would support the PRD in 38 municipalities where they had candidates (*"Central Campesina Cardenista"*, 2012).

While they maintain that they are an apolitical organization, Correa Hernández stated at that moment (2012) that the CCC works with the party to support their candidates. The PRD holds a strong political influence and thus represents an important gateway to public resources for TO leaders and participants. It however remains unclear at this point to what extent the links between the CCC and the PRD may influence the development and priorities of the TO initiative. Moreover, a question that could be further examined in future research is whether or not gender roles have an impact on TO's access to the political sphere. As stated in the Social relations section, men tend to have greater access to bridging and linking social capital, facilitating the creating of such networks between TO, the CCC and the federal government.

Conversely, the initiative represents an interesting entity for political parties who are seeking support in the region. The themes of politics and access to resources was raised in the group of San Nicolás Quialana, where political parties seem to have a higher influence:

I supported someone from Zimatlán from the PRD. This person was in office in Zimatlán but someone stole the ballots. I brought 80 people to vote for him [...]. But since he lost, the man felt like he owed me [...]. He offered me the role of president of TO. I started to look for people. I went to houses alone to invite them to join the party and to tell them about the project. I told them that they would get chickens, a *despensa* (with sugar, rice, soup, salt, toilet paper, cookies, milk). I started and got 30 people, then 40, etc. Until I got to 80 people. Today we have a total of 80 people. I have men and women. I have 18 men and 72 women. That is why they gave me 70 *estufas* (interview #1).

I was with someone else before, another group. When señora x [from the TO initiative in San Nicolás Quialana] invited me I said yes. I said I am in another group but I will get out because I did not get anything in return. I did not see a future with the other lady. She asked a lot from me but did not give me anything [...]. There are people that get involved with political parties, a form of government. The groups are formed that way. They invite people. When I got here I was invited to join a group, but the lady asked for a lot [...]. The lady was “priístas” [member of the PRI, *Partido Revolucionario Institucional*]. Now señora x is with the PRD. When there are elections we need to go and vote for the person that they tell us to vote for (interview #5).

When asked, a few participants of other villages answered that TO was associated with the PRD (interviews 6, 9 and 11), but did not elaborate on the impact of politics on access to resources. While Diego Cervantes admits that they have a lot of friends and colleagues within the PRD, and that they have often worked with them, she argues that they have no obligations toward them. Both leaders insist that they remain an apolitical organization (interviews Diego Cervantes and Aragon Ibañez). They are aware of their mobilization power and that this may generate political interest towards the initiative. TO's considerable size in terms of participants has attracted interest from political parties to form alliances, an opportunity that leaders do not intend on turning down. In that sense, they are strategically planning on taking advantage of these opportunities to acquire space for their demands, participate in the decision-making process and, ultimately, institutionalize the model that they are seeking to create and get greater resources for TO participants (Interviews Diego Cervantes and Aragon Ibañez). They believe that these alliances can be positive for both parties, i.e. TO and the chosen political party. One should note that the links that exist between the initiative, the CCC, the PRD and potentially other political parties could be a threat to TO's independence, as is discussed in Chapter 7. The nature of the collaboration, as well as how it will evolve, remains unclear at this point in the research. Nonetheless, the unequal power relations between the various actors and the search for financial and other forms of support for marginalized communities must clearly be taken into account when further seeking to consolidate such initiatives and measuring its multidimensional impacts.

Chapter 5: Preservation of the Right to Healthy and Culturally Appropriate Food

As stated by the IPC, the second pillar of food sovereignty is the right to food, based on the development of a human rights approach to safe, nutritious and culturally appropriate food entitlement. The food sovereignty paradigm proposes that this right should be regained and preserved through the creation of food systems that allow for the

consumption of diversified and balanced diets, produced through agroecological methods and that are aligned with cultural preferences (Schiek Valente, 2015). As stated by the Nyéléni Newsletter, considered to be the voice for the international movement for food sovereignty, the following themes should be addressed (“The human right to adequate Food”, 2015):

- Decision-making process: what is produced, where, and how?
- Control over productive resources
- Risks associated with the consumption of processed, fatty and/or genetically modified food

The examination of TO’s objectives and approach and the preliminary results highlighted by the participants helps to explain how the initiative contributes to the preservation of the right to healthy and culturally appropriate food. By helping women access the productive resources that they need for *traspatio* production, including human, natural, financial and social capitals, the initiative represents an opportunity to enhance their food security through the consumption of organic and culturally appropriate products. The concept of food security will be used in this section to evaluate how TO contributes to the preservation of the right to healthy and culturally appropriate food, and diversified and balanced diets. The use of agroecological methods and their link to the sustainability of the food system will be further discussed in Chapter 6.

5.1 Increasing Food Security

TO’s mission statement is to fortify food production systems in Oaxacan communities in order to improve food security and provide a strategic space for promoting cultural identity. The FAO states that “food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy lifestyle” (FAO, 2015c). Furthermore, it provides a set of indicators that are associated with various

dimensions of food security: availability, access, stability, and utilization. Figures 7 and 8 list all indicators associated with the four dimensions of food security. While, as discussed earlier, the concept of food security does not touch on the socioeconomic and political contexts that are central to food sovereignty, these indicators are useful to evaluate hunger and malnutrition and to understand how initiatives such as TO contribute to alleviating these issues. Oaxaca is one of the most food insecure states in the country, a situation that preoccupies the leaders of the initiative.

Diego Cervantes considers that the high rates of obesity and food insecurity in Mexico and in the state of Oaxaca are due to easy access to junk food and large grocery stores, a rather recent situation that needs to be rectified by helping the population regain its capacity to produce its own food. She considers that the primary objective of the initiative is to improve the families' diets by providing them with the productive resources necessary for organic production. For that reason, minimizing the risks that are

Figure 7. FAO indicators of the availability and access dimensions of food security

Type of indicator	Source	Coverage
Availability		
Average dietary energy supply adequacy	FAO	1990-2016
Average value of food production	FAO	1990-2013
Share of dietary energy supply derived from cereals, roots and tubers	FAO	1990-2011
Average protein supply	FAO	1990-2011
Average supply of protein of animal origin	FAO	1990-2011
Access		
Percent of paved roads over total roads	WB	1990-2011
Road density	International Road Federation, World Road Statistics and electronic	1990-2011
Rail lines density	WB	1990-2012
Gross domestic product per capita (in purchasing power equivalent)	WB	1990-2013
Domestic food price index	FAO/ILO/WB	2000-2014
Prevalence of undernourishment	FAO	1990-2016
Share of food expenditure of the poor	FAO	partial
Depth of the food deficit	FAO	1990-2016
Prevalence of food inadequacy	FAO	1990-2016

Source: FAO, 2015b

Figure 8. FAO indicators of the stability and utilization dimensions of food security

Stability		
Cereal import dependency ratio	FAO	1990-2011
Percent of arable land equipped for irrigation	FAO	1990-2012
Value of food imports over total merchandise exports	FAO	1990-2011
Political stability and absence of violence/terrorism	WB/WWGI	1990-2013
Domestic food price volatility	FAO/ILO/WB	2000-2014
Per capita food production variability	FAO	1990-2013
Per capita food supply variability	FAO	1990-2011
Utilization		
Access to improved water sources	WHO/UNICEF	1990-2012
Access to improved sanitation facilities	WHO/UNICEF	1990-2012
Percentage of children under 5 years of age affected by wasting	WHO/UNICEF	1990-2014
Percentage of children under 5 years of age who are stunted	WHO/UNICEF	1990-2014
Percentage of children under 5 years of age who are underweight	WHO/UNICEF	1990-2014
Percentage of adults who are underweight	WHO	partial
Prevalence of anaemia among pregnant women	WHO/WB	1990-2011
Prevalence of anaemia among children under 5 years of age	WHO/WB	1990-2011
Prevalence of vitamin A deficiency in the population	WHO	partial
Prevalence of iodine deficiency	WHO	partial

Source: FAO, 2015b

associated with the consumption of unhealthy and genetically modified foods are a central motivation for TO leaders:

The first objective is to improve the families' diets. In the work that we did through the methodological guide we have results that are very alarming. At the national level in our country there are high rates of obesity as well as malnutrition. It is interesting to compare these two parameters. At the same time there are people that are obese, that eat a lot but very badly, and people that do not have the opportunity to eat, that eat once a day. The food situation is very critical in Mexico and it is the same in our state. We have access to food, but to junk food [...]. There is Chedraui, Soriana, stores with Sabritas, Coca Cola, Bimbo, and the people that do have a little bit of money go and spend it on these products. This causes more health problem And then there are the people that do not have money [...]. Therefore the first objective is to improve diets through the production of our own food. Because we guarantee that what we are cultivating is clean, without insecticides, and healthy. If you do not have any money to eat meat or protein, you will have it in your *traspatio* (interview Diego Cervantes).

The initiative's mission of increasing food security directly addresses this theme, as the fight against processed and fatty foods is an implied objective. Through the production of

healthy and organic fruits, vegetables, poultry and eggs, leaders wish to address the critical nutritional problems that exist within Mexico and in the state of Oaxaca. The initiative could therefore, ultimately, increase food security through the utilization dimension by impacting indicators such as the percentages of children and adults that are underweight or that have nutritional deficiencies (see Figure 8 for the full list of indicators).

The interviews suggest that the initiative contributes to household food security and improved nutrition particularly when it comes to the availability and access dimensions. First and foremost, the food system that is created allows the participants to increase the availability of diverse and quality products, which are consumed at home. As discussed in the Social relations section, gender discrimination, which is related to cultural norms such as machismo, is associated with malnutrition; the presence of a home garden that is most often controlled by the woman increases the overall household food security, especially for the children and elders under their care. However, women in Mexico have distanced themselves from *traspatio* production, with the recent increase in access to fluid incomes and commercial foods, a situation that increases food insecurity. TO allows women who do not already have a *traspatio* to create one, and those who already do to diversify as well as improve the quality of the products that they are cultivating. Despite the limited number of villages studied and interviews conducted, my research has demonstrated that out of 22 participants (21 women and 1 man), 11 did not have a *traspatio* prior to their involvement with TO (Interviews #3, 5, 6, 8, 9, 12, 14 and 16). Out of the 11 others, 6 mentioned the fact that although they did have a *traspatio* before, the quality and diversity of products had increased (Interviews #1, 2, 4 and 7). The poultry production component also secures access to protein of animal origins for the participants and their families from the consumption of chicken and eggs. The majority of the products that are cultivated in the *traspatio* are usually consumed at home and represent an important source of food security for those marginalized households (interviews #1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 14). Some members mentioned occasionally trading products between neighbors, allowing them to further increase the diversity of products that they have access to. Most importantly, however, is the

opportunity for income substitution through *traspatio* production, as demonstrated by interviews with TO participants:

We sold two roosters. Sometimes we also sell eggs, but not often [...]. It [TO] helps us because now at the store an egg costs 3 pesos. We have to buy 10 or 15 eggs for all of us. So 15 eggs are more than 30 pesos. With the chickens that we have we get 3 to 5 eggs a day [...]. That way we save those 30-40 pesos [...]. We eat eggs maybe twice a week [...]. Before we had to buy it whether it was expensive or cheap, we had to buy it. Now it helps us because it is our food. With the 30-40 pesos we can buy tortilla, or something else [...]. To buy fruit, or other vegetables that are not as easy to cultivate at home (interview #9).

Everything I produce we eat here [...]. I sow. I do not have a lot of work but I do it [...] for people here in the *pueblo* [...]. My husband right now has work, thank god. Here in Oaxaca he works in construction [...]. I have a lot of expenses and what my husband and I make is not a secure source of revenue. Sometimes there is [money], sometimes there is not. For me TO is a big help because I do not buy lettuce, or parsley. All the herbs I have I do not buy anymore because I have them here. Other than not having to spend money, it is extraordinary, a privilege to harvest your own products (interview #11).

The initiative allows the participants to reduce the share of food expenditures. Many of them stated employment instability as a source of preoccupation. As Sanchez (2011) explains, a reliance on cash transfers or precarious and low income employment represents a risk to fall deeper into poverty, and re-claiming food production is a livelihood option that should be retained. TO allows them to not only secure their access to diversified organic products but also to use the money to acquire products that are harder to produce, further diversifying the diet. This concurs with what has been discussed in Section 2.2 regarding the potential of home gardens for increasing household food security. The *traspatio* contributes to reducing women's dependence on fluctuating revenues for the purchase of food, and represents a source of cash income, which allows them to acquire other kinds of products such as meat, fish and expensive fruits and vegetables.

TO contributes to the availability of a higher diversity of products, but also to the quality of the food that is consumed at home. As mentioned previously, most of the fruits and vegetables that are sold in markets and stores of Oaxaca come from the village of Puebla

where producers use water from the Atoyac river for irrigation. This water source is considered to be highly contaminated (“11 firms closed”, 2015), all participants referring to it as “black waters” (*aguas negras*) and expressing concerns regarding the health impacts that are associated with the consumption of these products. *Traspatio* production is therefore a way for women to gain greater control over the origins and quality of products that they consume. This aspect seems to be highly motivating to them, as many have expressed concerns related to the low quality of fruits and vegetables that are found in local markets and stores. A total of 19 out of 21 interviewees mentioned access to healthy, diversified, clean and organic products as a motivation for their participation, or as a source of satisfaction at the least:

I consume what I produce. I know how I took care of it, how I watered it [...]. Here in Reyes there are children of 8-9 years old that have diabetes. It [the quality of products] has a lot to do with that. It is not possible that there are children with diabetes [...]. They are adults' health problems (interview #7).

The *traspatio* is cleaner and more nutritious. I water it with clean water. At the market what is sold is watered with *aguas negras*, treated water [...]. They [*aguas negras*] come from the drainage of the Atoyac river [...]. Sometimes people get sick from the stomach (interview #14).

Through home gardening, women not only gain greater control over the resources that are used for cultivation, but can also increase the nutritional value of the products that are consumed by household members. As stated in Section 2.2, the consumption of fruits and vegetables from home gardens usually takes place right after harvest, when nutrition content is at its highest.

At the council level, the plan is to incorporate the value-added production phase as a way to generate additional income but also as a conservation component, which would allow participants to increase food security on an annual basis (Interview Aragon Ibañez). In that sense, TO could also contribute to the stability dimension of food security, for it may decrease the variability of food production. By transforming the products that are harvested, they can be conserved and consumed or sold later in the year when conditions are not ideal for cultivation (during the dry season, for instance). As Scoone discusses,

the dynamic element of local and external conditions is crucial to examine while assessing the sustainability of livelihood strategies; sequencing strategies to climate-related stresses such as droughts are an example of how the sustainability of agro-food systems can be increased. Within the SL framework, the strategy proposed by TO could be considered as a mix of agricultural intensification/extensification and livelihood diversification, to be pursued in sequence depending on the season. However, while this idea was mentioned during the interview with Aragón Ibañez, participants did not seem to have the same vision (or may simply not be as concerned about this objective) and were still preoccupied by the lack of water and consequent difficulty of producing during the dry season. As the fieldwork was conducted during a time of water scarcity, many women had very few products in their *traspacios* and an issue that was raised quite often was the lack of water (interviews 2, 3, 4, 5, 6, 11, 12, 14, 15 and 16). While the leaders' vision is to be able to take advantage of every season to either produce/conservate or consume/sell, it is unclear at this point how women will organize to do so and whether or not they will be able to produce enough during production season to contribute to their own food security on an annual basis.

5.2 The Cultural Value of Traspacio Production

The preservation of culture is also a central motivation for the initiative's leaders, who consider that TO constitutes a way to revalue local practices and history through food production: by focusing on the role of women, by reintroducing traditional production methods, practices and know-how, and by allowing for a higher consumption of culturally appropriate and fresh produces. However, as discussed previously, the arrival of grocery stores and increased access to fluid income in Mexico has led to the abandonment of *traspacio* production and other traditional production methods. Additionally, region-specific foods have reduced in consumption, for they are stigmatized as "poor man's food" (Sanchez, 2011). The initiative leaders recognize that the social status that is associated with the ability to purchase food products, especially in grocery stores, leads to the progressive increase in the consumption of highly processed food, frozen and foreign products:

The communities that are close to the metropolitan zone of the city of Oaxaca little by little stopped doing it [*traspatio* production] [...]. It was a process of degradation. When *miscelaneas* appear in the communities it is the result of large commercial spaces that are starting to establish themselves in the cities [...]. In this very small commercial space [*miscelanea*] we find what we are not producing yet we are able to produce. It is also a space where we find products that we do not know. Very clear examples are fried food, products that generate immediate calories, refined sugars, etc. [...]. Here we begin to stop producing because there is a social status associated with the ability to buy food [...]. In our context, practices of conservation are dehydration, smoking, drying, cooking, etc. Canned goods are new to us [...]. People think they [the store-bought products] are of higher quality and it allows them to position themselves in the community because they have the money to buy new products [...]. It generates disequilibrium, a loss of identity. When you have access to these products, at low cost, it seduces you and you start to consume [...]. There are no limits to the market now [...], to products that have no antecedents in our context [...]. It is that way that we began to lose *traspatio* production (interview Aragon Ibañez).

The Mexican market being saturated with low-priced foreign products thus had a dual impact: the eventual loss of the population's production capacities and ability to feed itself, but also the loss of identity linked to the consumption of products that have no history in Mexican and Oaxacan culture.

The country's agricultural development strategy, oriented towards industrial monocultures and exportation, further contributes to the progressive disappearance of subsistence production systems. Smallholders are disadvantaged when it comes to support from the federal government and the prioritization of export-oriented production, a situation that has important impacts on the quality of products that are available to the Mexican population (interview Aragon Ibañez). The reintroduction of *traspatio* agriculture as a tool to enhance food security allows for the reinstating of a traditional food production method, while gaining greater control over the cultural value and quality of the products that are consumed by Mexican families. The seeds that are planted through TO are thus chosen for their nutritional and health benefits, but also for their cultural value and for the personal preferences of the participants. As discussed previously, Mexican women tend to claim home gardens as their territory, where knowledge and culture is transferred. While women can decide what they wish to

cultivate in their *traspacios* according to their household's preferences, however, it remains unclear who exactly values the cultural and traditional methods that are put forth by TO leaders. Indeed, most participants have no experience in *traspatio* agriculture and may therefore not associate it with a personal or collective cultural heritage (this question will be further discussed in Chapter 7). Moreover, from another angle, it would be important to examine how and to what extent a cultural revitalization of *traspatio* production among mostly women participants may nurture greater gender equality and women empowerment, or whether this strategic choice may reproduce historical inequalities and gender division of labor rooted in Mexican (rural) culture and practices.

5.3 Decision-Making and Control Over Productive Resources

The support provided to participants through the provision of productive resources certainly has positive outcomes in the sense that it increases women's access to productive resources, which are necessary to create successful livelihoods. However, it is hard to say at this point that the decision-making process and the overall structure of the initiative is democratic in nature. While municipal committees were elected in the communities of Reyes Mantecón and Vicente Guerrero, the president of San Nicolás Quialana was appointed by a PRD deputy and elected her own daughter as vice-president. Moreover, although there is an assessment of the families' needs and realities prior to the creation of each group, and the participants are encouraged to give feedback and make suggestions for future steps, the fact that women were not involved in the design of the initiative from the start is a potential source of concern. When asked, none of the interviewees were able to explain how the decisions were taken regarding the types of trainings and workshops that were offered to them, or the varieties and origins of seeds that were distributed. TO's mission is to put women's contribution to food production at the center of attention, an objective that aligns well with the food sovereignty paradigm and the idea of defending 'peoples' rights and increasing their autonomy. Whether the initiative leaders are really seeking ways for the women that they seek to empower to participate in decision-making and to determine their own model of food production was however not really discussed by interviewees. In that sense, and at least until now, they

are recipients or beneficiaries of an alternative agro-food initiative more than initiators or key players collectively deciding on how best to proceed, how to work together, or what priorities they should adopt, for instance. This may be related to the fact that TO is still a very recent, emerging initiative that has few resources to mobilize people and promote greater participation and initiative by participants themselves.

Nonetheless, the literature on SL states that the productive resources (or capitals) that are acquired through various sociopolitical processes are necessary to create livelihoods that are meaningful, to challenge existing structures and to contribute to poverty alleviating strategies. In that sense, I argue that by increasing their access to human, social, natural and financial capital, TO can potentially allow women to regain control of their space, becoming independent agents of change and bettering their own situation. Ultimately, this can help them gain more confidence in participating in their communities and beyond, and collectively influencing the distribution of public resources. Therefore, a theme that TO may address more successfully, in the long run, is the (potentially growing) control of marginalized actors (women from economically vulnerable families) over productive resources. While it would be presumptuous to state that they have a direct influence at the moment, the initiative is based on the recognition that there is an inequitable distribution of support coming from the Mexican government. As discussed previously, its agricultural development strategy has prioritized large-scale industrial producers and largely neglected small-scale, subsistence farming. A secondary yet key objective is to access the political sphere, and the initiative leaders seek to steer the distribution of resources towards a greater share for women and small-scale production systems such as TO.

Chapter 6: Promoting the Use of Ecologically, Economically and Socially Sound and Sustainable Methods

The IPC on Food Sovereignty considers the third central pillar to be the mainstreaming of agroecological production, through the design and management of agroecological

systems. The SL framework constitutes a complementary approach to evaluate agricultural interventions. The following attributes and questions, which have been directly taken from Figures 4 and 5 and grouped in themes, are particularly relevant to assess the sustainability of TO:

1. **Organic production and efficient use of resources:** Avoid the unnecessary use of agrochemical and other technologies that adversely impact on the environment and on human health (e.g. heavy machineries, transgenic crops, etc.) – Efficient use of resources (nutrients, water, energy, etc.), reduced use of non-renewable energy and reduced farmer dependence on external inputs – Do they reduce investment costs and farmers dependence on external inputs?
2. **Increasing agrobiodiversity:** Strengthen adaptive capacity and resilience of the farming system by maintaining agroecosystem diversity, which not only allows various responses to change, but also ensure key functions on the farm – Do they conserve and encourage agrobiodiversity?
3. **Increasing social inclusion:** Recognition and dynamic conservation of agricultural heritage systems that allows social cohesion and a sense of pride and promote a sense of belonging and reduce migration – Do they reduce social exclusion, particularly for women, minorities and indigenous people?
4. **Contribution to poverty reduction and income opportunities:** Do they increase income opportunities and employment? Are they reducing poverty?
5. **Creation of human and social capital:** Make productive use of human capital in the form of traditional and modern scientific knowledge and skill to innovate and the use of social capital through recognition of cultural identity, participatory methods and farmer networks to enhance solidarity and exchange of innovations and technologies to resolve problems – Do they increase human capital formation?
6. **Redistribution of productive resources:** Do they favor the redistribution (rather than the concentration) of productive resources?
7. **Increasing food security:** Do they substantially increase food production and contribute to the household food security and improved nutrition?

While the questions of building and strengthening of human and social capital, redistribution of resources and greater food security have already been discussed in Chapters 4 and 5, the first four questions will be further examined in this chapter. Questions 1 and 2 have been grouped under the farming methods theme.

6.1 Farming Methods

Agroecology states that sustainable food systems should avoid the unnecessary use of agrochemicals and other technologies that have negative impacts on the environment and on human health (such as agrottoxics, heavy machineries and transgenic crops). The efficient use of resources such as nutrients, water and energy, the reduced use of non-renewable energy and decreased farmer dependence on external inputs and investment costs are put forth by both agroecology and the SL frameworks. While it is not an explicit objective or principle of TO, the initiative does not involve the use of heavy machinery as it does not have the resources to do so, nor is it appropriate in most cases of *traspatio* production. The *traspatio* is generally located around the house or on very small communal pieces of land where the soil is prepared by hand, by the participants and their families, and with the help of an agronomist in the case of TO (participant observation). Only for the distribution of ecological ovens was heavy machinery observed, where trucks (which were not owned by TO members) were used to deliver the material. Moreover, an integral part of the TO initiative is the learning process that the participants must go through to acquire the skills that are necessary for organic production (interview Aragón Ibañez). During Stage one, participants learn how to prepare the soil and elaborate organic fertilizer and insecticide using local resources, some of them even available at home (interviews #3 and 8). By learning to produce or gather their own resources for *traspatio* production, participants expand their skills and decrease their dependence on external inputs. As stated in Chapter 2, market monopolization is worse within the upstream sectors of the agro-food system (producing seed and fertilizers, for example), rendering input-depend producers extremely vulnerable to price fluctuations.

Organic production thus reduces the dependence on external actors for resources, increasing agro-food systems' resilience.

TO leaders have an initiative-wide vision of organic production, and they are seeking to reduce their collective dependence on external sources for seeds. Diego Cervantes discusses that in order to address the difficulty of ensuring the organic value of the seeds that are distributed to the participants, they are in the process of creating their own seed bank:

In our case we are starting to produce indigenous seeds [...]. We used to buy them from national and international providers [...]. Indigenous seeds are seeds that are from Oaxaca, that we take from a plant and that do not contain chemicals [...]. At the beginning it was harder to ensure that the seeds were organic [...]. We understood the importance of having our own seed bank. We started a few months ago and now we are producing our own indigenous seeds (interview Diego Cervantes).

The advantages of having access to an organic seed bank are numerous. It allows TO leaders to reduce their dependence on international firms for the purchase of seeds, thus increasing their autonomy in case of external shocks and their control over the quality of the crops. It also provides participants with resources that are not only healthy but that are adapted to the region and can be re-used, as non-transgenic seeds can be recuperated from one harvest to the next. This is also a skill that TO participants learn in Phase 2 of the process (interview #11). As stated in the literature on agroecology, reducing the need for external inputs can contribute to the autonomy of producers and the sustainability of agro-food systems. The initiative leaders are not only seeking to avoid the use of transgenic crops but are also involved in the fight against this type of technology. During the fieldwork, a demonstration against the use of transgenic corn in the state of Oaxaca, to which all participants were invited, was organized by local organizations. At a TO event where participating women were receiving information on microcredit and federal support programs, a petition against transgenic corn was circulating in preparation for this demonstration (participant observation). While again, one could ask who most values the theme of organic production between participants and leaders, the ideas that are put

forth and that are at the base of TO clearly align well with the agroecology and SL frameworks when it comes to the types of resources and methods that are used.

Both the agroecology and SL frameworks also evaluate agricultural methods' sustainability in terms of their contribution to the conservation of agrobiodiversity. Agroecosystem diversity allows to strengthen adaptive capacity and resilience of the farming system, which not only allow various responses to change, but also ensure key functions on the farm. While the neoliberal model tends to favor monoculture production, alternative food systems such as TO may allow for greater agrobiodiversity and the creation of natural capital. As stated in Chapter 2, home gardening is associated with the preservation of local genetic resources. This concurs with the data that were gathered during the fieldwork: out of the 22 TO participants that were interviewed, 11 did not have a *traspatio* before participating in the initiative, and 6 mentioned that although they did have one, they had diversified the products that they were cultivating. Therefore, their participation allows for a higher biodiversity around the house. The seeds that the participants receive are: radish, pumpkin, carrot, *chile de agua*, tomato, lettuce, onion, chard, spinach, coriander, parsley, and *epazote*. Depending on when they joined TO, the participants also received a number of chicks for poultry and egg production (the majority of interviewed participants had received a total of 20 chicks). As mentioned previously, however, access to water is a major constraint to *traspatio* production and therefore to agrobiodiversity. The situation varies depending on the village and household; some participants may already be connected to the water system but do not receive sufficient water during the dry season, and some may not be connected at all, as the service is not provided in their villages or because the cost of connection are financially inaccessible. Again, as the fieldwork was conducted during the dry season, many participants did not have any, or a limited amount of, products in their *traspacios*, demonstrating the extent to which water is crucial to agroecological diversity and hence to the sustainability of the initiative.

6.2 Social Inclusion

Sustainability is also evaluated in agroecological terms based on the recognition and dynamic conservation of agricultural heritage systems, which allow for social cohesion and promote a sense of pride and belonging, as well as reducing migration. Similarly, the SL framework assesses agricultural interventions and projects through their capacity to reduce social exclusion, particularly for women, minorities and indigenous people. Agroecology seeks to reaffirm the social role of food in households and communities and within agricultural systems, in which small-scale farmers have been marginalized through agricultural development in Mexico. As discussed previously, the state of Oaxaca was particularly affected by austerity measures imposed following the 1982 economic crisis; it is now one of the states that have the highest marginalization and poverty rates. By seeking ways to empower women from economically vulnerable families through *traspatio* production, TO increases these marginalized actors' capacity to participate and be included in the development of local food systems. While the socioeconomic statuses of participants have not been quantitatively classified, results suggest a type of individual that this initiative may be reaching. As discussed previously, the process of getting involved with TO is quite lengthy and a fair amount of time is being asked on the part of participants (interview Aragon Ibañez and Diego Cervantes); therefore, people who are employed or have large families – although they may experience real challenges in terms of food insecurity and marginalization – do not represent the typical profile. While this means that some individuals might not have an equal chance to participate because of a lack of time, it is important to highlight that a significant proportion of marginalized households, i.e. people that are unemployed, under-employed, self-employed or without strong family ties, seems to be attracted and able to get involved and benefit from TO.

Interviews suggest, on the one hand, that some participants take advantage of this initiative to break social exclusion and build social networks. This aspect was mentioned in San Nicolás Quialana as well as in Reyes Mantecón, with participants describing TO as a 'social' activity and a way to get out of the house, to forget the problems that they

may be experiencing at home and to participate in their community (interviews #1, 5, 6, 10). One participant of Reyes Mantecón said:

I do not like to be inside. I do not like to be alone. This is a good environment for me because it allows me to meet a lot of people. You have to find a way to go out, not to be isolated. You have to look for a group where you can learn something (interview #10).

On the other hand, none of the interviewees talked about social inclusion (with or without using these specific terms) in Vicente Guerrero, a very young village with private land ownership and a population that gathers a mix of people from different regions. It is however in this specific village that there seemed to be the most willingness to get involved, with weekly meetings and a lot of motivation to apply for federal assistance programs in comparison to the two other villages. This group is the only one among all of the studied villages that had applied to the henhouse governmental program, which Diego Cervantes describes as particularly demanding and specific in terms of documents and paperwork.

Gender relations are also central to reducing social exclusion for marginalized women, as the issue of role duality, which is associated with gender-specific tasks and responsibilities, is an important determinant of women's participation in TO. Aragón Ibanez considers the role of Diego Cervantes to be fundamental to the initiative; he considers that she is best placed to understand the types of issues and social pressure that the women who are involved may be facing, and to orient the initiative and events accordingly. They are explicitly seeking ways to include marginalized women from poor families into alternative food systems, not only to increase food security but also their capacity to get involved in their creation themselves, giving them the tools to do so in the long run. It is necessary that women be well represented within the council for a greater understanding of their needs and concerns, and for them to be able to break social isolation and gender discrimination. Moreover, as discussed in Chapter 4, while the initiative aims at reasserting the role of *traspatio* agriculture in food production, and conceives the *traspatio* as a space that has historically been associated with women's

crucial role in food production and household well-being, it encourages the implication of both sexes to ensure the social sustainability of TO.

During the fieldwork, men were often seen at meetings and events to support their wives by helping them with manual work (for example, to unload the ecological ovens). They were also welcome to voice their opinions. Although gender equity workshops are considered to be an important step in the structure of the initiative, men are generally not invited to be official members of TO. Only in the village of Vicente Guerrero were a few men actually involved as participants and received the same support as women. As stated in the literature on social capital, exclusion processes or tensions can hinder the positive repercussions that are normally associated with horizontal linkages and popular participation. While it is not completely clear why more men are not officially participating in TO, it seems to depend on whether or not they are invited by the participating women, a decision that is not always unanimous:

My husband asks me why there is nothing for men. My son is single, he is not registered [in TO] [...] because it is only for women. All the support that we get is only for women [...]. For example my brother in law is a widower, his wife died 20 years ago. He also has a 23-year-old son. He would like to participate. I feel bad to tell them that this project is just for women (interview #5).

This situation demonstrates a difference in opinion regarding gender-related roles and could represent a possibility of friction within groups and households. In that sense, if the initiative seems to successfully reach a portion of the marginalized population (i.e. women from economically vulnerable families), gender relations continue to pose particular challenges both for TO leaders and community groups who have decided to prioritize women because they have long been facing various forms of discrimination. Through a gender equality perspective, one could ask why we are not trying to be more inclusive of men in the *traspasio*, even though it has historically been the woman's space, and what the impacts are on the consolidation of alternative agro-food initiatives such as TO.

A theme that could be further explored is whether or not the initiative successfully reaches the most marginalized portions of the communities, or if it simply reinforces existing social networks. As mentioned previously, TO mostly grows through word of mouth and is based on self-organization on the part of the participants. Other than in the group of Reyes Mantecón, where Aragon Ibañez invited all the women of the community, most new groups are formed between friends and neighbors (interviews #1, 11, 13, 14 and 16). Therefore, while fieldwork observations suggest that all are welcomed to join, there are always risks and limitations related to relying on people's networks to work with and reach out to the most marginalized individuals, who may end up being further excluded. This concurs with literature on bonding social capital, which states that this type of social capital may encourage the exclusion of individuals who are not of the same socioeconomic or cultural background or group. In this sense, the case of Vicente Guerrero could be interesting to further examine to verify whether the participating group gathers members of an already existing and strong social network, and if (and why) women are more open to male participation in this particular village.

6.3 Contribution to Poverty Reduction and Income Opportunities

The SL framework states that sustainable agricultural interventions should increase income opportunities and employment and contribute to poverty reduction. The municipalities in which the interviews were conducted are characterized by relatively high rates of moderate poverty, with 33% in San Bartolo Coyotepec, 39% in Zimatlán de Álvarez and 55% in Villa de Zaachila. While only 3.5% of the population of San Bartolo Coyotepec lives in extreme poverty, 26% of the people in the two other communities are characterized as living in such conditions. Most of the TO participants that were interviewed are unemployed and rely on their spouses' or children's income, and a few are self-employed (sowing for neighbors, selling food at local markets). The economic benefits are clearly an important factor of participation (interviews #2, 3, 4, 5, 10, 14). While it is difficult to quantitatively evaluate at this point, the interviews suggest that the initiative constitutes a non-negligible economic contribution through income substitution and the sale of value-added products. As discussed earlier, the majority of *traspatio*

products are consumed at home, reducing the amount of food that participants have to purchase and therefore allowing them to increase their savings or use the money for other goods.

Providing additional income opportunities for women may contribute to the overall goal of poverty reduction, as gender-based studies show that increasing women's earnings and access to productive resources results in greater investments in children's health and education and better human development. At the value-added production stage opportunities are considerable:

Right now there is no economic impact. Because there is no free market to sell [our products]. But for example sometimes they invite us to events and we bring our products and we sell them. About 3 weeks ago there was an exposition [...] and I went and sold for 700 pesos. If you go out to a place where there are a lot of people you sell (interview #6).

While this may be an isolated opportunity for the moment, it demonstrates the financial potential that the sale of value-added products could represent for poor households. In a context of gender discrimination, such opportunities could go a long way in reducing gender inequality and improving the quality of life of participants and their families.

An obstacle that is associated with accessing local markets is the certification process, which is necessary to ensure a standardization of the quality of the products. Accordingly, the TO leaders are presently focusing on the *sello de calidad* (quality label) project in order to allow the participants to successfully take their products to local markets. Nevertheless, the women that are at the commercialization stage seemed very pleased with the possibilities that the initiative offers in terms of potential marketing opportunities (interviews #6, 7, 8, 10). In Reyes Mantecón, TO participants who had been selling at local markets and events felt proud to present their products and to explain their benefits. They were looking forward to being able to sell more and participated every Sunday to the market in Reyes Mantecón. Diego Cervantes considers that a potential consequence of TO could be the creation of networks between TO women and local producers for the elaboration of value-added, corn-based products such as *atole* and

tostadas, for instance. Interviewee #6, who produces flavored *tostadas* with her *traspatio* vegetables, mentioned the difficulty of finding organic corn. Through TO, she met a corn producer from whom she purchases the corn. Diego Cervantes believes that this type of networks and partnerships could stimulate local economies, generating higher incomes for local farmers and TO members while giving both parties the opportunity to sell their products at the market.

A risk that may be associated with the value-added production phase is the abandonment of *traspatio* production due to a lack of time. While most of the participants had very few products at the time of the fieldwork, which was conducted during the dry season, participants who produce *atole*, *tostadas*, crystallized fruits, etc. seemed to have completely abandoned *traspatio* agriculture, as opposed to other interviewees dealing with similar, if not greater, water-related challenges (interviews #6, 7, 8 and 10). It is unclear at this point in the research whether it is a question of access to water, of adaptation or if the nature of their participation is permanently changing. Another aspect to take into consideration is the potential gender implications of an increased income for participating women, as men could use their social status to take control of an eventual flourishing business. While it was not a central question to this research, this situation has not been observed in the specific case of TO, potentially because of the early stage of the initiative. It could be a case for further investigation.

Chapter 7: Conclusion

7.1 Revisiting the Three Research Questions

The initiative's first objective is to fortify *traspatio* production systems in communities of the Oaxacan region of Valles Centrales in an effort to improve food security and the overall quality of life of economically vulnerable families. The leaders have a secondary objective, which is to generate a model that could be used to institutionalize support for *traspatio* agriculture at the national level. Chapter 5 highlights the areas of food

sovereignty that TO contributes to through the pursuit of these objectives and the various obstacles that it faces. The following is a summary of some concrete ways the initiative actually contributes to the implementation of food sovereignty principles, which were examined through the three research questions: women's empowerment, access to healthy and culturally appropriate food, and agro-food systems' sustainability.

Empowering Women from Economically Vulnerable Families

The analysis demonstrates that TO contributes to the second and fourth pillars of the IPC on food sovereignty by helping women to collectively influence the distribution of resources and to gain greater access to these productive resources (or capitals). Although somewhat indirectly, it also touches on the questions of trade and local markets and the protection of farmers from subsidized exports, food dumping and other downsides of the dominant agricultural trade model by promoting policies that aim at generating greater support for marginalized food producers. Women have also been identified as central actors of the food sovereignty movement. Accordingly, TO seeks to empower Oaxacan women from economically vulnerable families by increasing their access to productive resources, given that the sociopolitical and economic context of agricultural development in Mexico has not favored *traspatio* production (to which women are central actors) and that southern states such as Oaxaca have been particularly marginalized in the process.

Human and social capital have been identified as key components in achieving this objective, allowing participants to share the skills and tools that they acquire through TO trainings and workshops, thus gaining greater individual and collective autonomy and food security. While the initiative increases participants' access to financial capital through seeds and material, the trade-off between *traspatio* production and water costs remains an area to be examined more carefully. It should be considered in future studies on *traspatio* production in regions of water scarcity, as it represents the main reason for low productivity at the time of the fieldwork. While social capital allows participants to reduce their dependence upon the neoliberal model of food production, through, for instance, shared information on organic production, it also allows them to gain greater

access to market opportunities. Moreover, the creation of networks constitutes a way to exchange on their experience in TO and to reaffirm their historic role within food production, as gender relations and machismo constitute an important obstacle to women's participation and empowerment. By doing so, TO begins to address gender inequalities, which tends to undermine women's access to productive resources and participation in local economies. At the collective level, addressing power relations is also essential in generating a greater recognition of *traspatio* production and women's role in food security. Through the creation of key links with political actors from the PRD, the initiative is succeeding, to some extent, in entering the Mexican political sphere, which may allow them to influence the distribution of public resources. Another theme that could be further explored is the long-term impact of the creation of such political links on the independence of TO.

Preserving the Right to Healthy and Culturally Appropriate Food

The TO initiative also contributes to the first pillar of food sovereignty, or the right to food, based on the development of a human rights approach to safe, nutritious and culturally appropriate food entitlement. TO seeks to increase food security through *traspatio* production in Oaxaca, which is one of the most food insecure states in Mexico. By providing participants with the necessary productive resources for organic production, leaders seek to improve the families' diets, which have been heavily affected by the liberalization of markets and associated agricultural development strategies in Mexico. The interviews suggest that TO contributes to food security particularly when it comes to the dimensions of availability and access. It is doing so by increasing the control that women have on their families' diets, providing the opportunity to create a *traspatio* and/or to diversify and increase the quality of the products that they are cultivating and consuming. Beyond the diversification of the products that are consumed directly from the *traspatio*, home production acts as income substitution. This allows women to reduce their dependence on the purchase of food and to redirect the money towards products that are harder to cultivate at home. For women, gaining greater control over their families'

diets can potentially address the gender-related hierarchy that exists within some Mexican households and that is associated with malnutrition.

Some aspects remain to be explored regarding the different objectives and visions that exist between TO leaders and participants, such as sequencing strategies, and the impacts of these differences on the long-term success of the initiative. Moreover, the preservation of culture is a central motivation for the leaders of the initiative, who seek to reintroduce a traditional production method (*traspatio* production) as a way to address the nutritional and cultural symptoms of the agricultural policies put forth by the Mexican government. It is however unclear how significant these cultural values are for TO participants. The interviews suggest that many of them never had experience in *traspatio* agriculture before and can therefore difficultly associate this practice with a personal cultural heritage. Moreover, the theme of decision-making is not really addressed and analyzed here, as none of the interviewees seem to be involved in the design of the initiative or completely understand the rationale behind the structure. During open-ended interviews, participants could have raised concerns or questions about democratic participation, transparency, strategies, or leadership. Yet, none of them insisted on or introduced these issues, potentially because they were not comfortable doing so. If the democratic nature of TO remains to be examined, the question of control over agro-food production is more successfully addressed, one of its premise being the unequal distribution of resources from the Mexican government towards marginalized women and small-scale production systems.

Promoting Ecologically, Socially and Economically Sound and Sustainable Methods

Finally, TO answers to the third pillar of the IPC on food sovereignty, i.e. the mainstreaming of agroecological production, through the design and management of agroecological systems. The agroecology and SL frameworks have been used to begin evaluating the sustainability of the initiative through the examination of the farming methods that are used as well as the themes of social inclusion and poverty reduction. Field observations and interviews suggest that participants are learning the skills to create

a *traspatio* with minimal local and organic resources through the various workshops and trainings, thus reducing their dependence on external actors and inputs. At the initiative level, TO leaders are seeking to move away from purchasing seeds from international firms by creating their own organic and indigenous seed bank, therefore increasing their control over the quality of the resources that are distributed to the participants. By doing so, participants are able to recuperate the seeds from one harvest to the other, further increasing their autonomy to grow their own organic and healthy products. The field data show that TO may contribute to increasing agrobiodiversity in the participating communities, which agroecology associates with a higher resilience and adaptive capacity of food systems. Out of the 22 participants, 11 did not cultivate any products around the house before participating in the initiative, and 6 more mentioned having increased the number of products that they were cultivating. Access to water however remains an important obstacle to the sustainability of TO, as it is the number one limiting factor to *traspatio* productivity.

In terms of social inclusion, the initiative seeks to reach a portion of the population that has been marginalized through Mexico's agricultural and social development policies, i.e. small-scale producers and in this case, mostly women from economically vulnerable families. More specifically, TO is particularly effective for women who are unemployed, who do not have large families, and/or who lack social networks. An important aspect of inclusivity is the question of gender-based roles, as the lack of time constitutes an important obstacle to the participation of women in the studied communities. While leaders consider the implication of men to be crucial for the long-term success of the initiative for this reason, there are some grey areas regarding their ability to fully participate and receive the same support as women. Only in the village of Vicente Guerrero were men actually involved and received the same benefits as women, suggesting a certain level of discrimination. In the same sense, the creation of bonding social capital, which is encouraged by the formation process of TO's groups, may encourage exclusion processes that hinder the positive repercussions of social capital by simply reinforcing existing networks.

Finally, the interviews suggest that many participants are involved in the initiative for financial reasons, as cultivating their own products represents a way for them to decrease their dependence on the purchase of food as well as allowing them to buy products that are more expensive or that are harder to produce at home. While there was no reliable market space for women to sell their value-added products at the time of the fieldwork, there seem to be important economic opportunities at the value-added production phase for TO participants. Accordingly, leaders are seeking to acquire a quality seal to open up possibilities. One risk that is associated with this stage of the initiative is however the abandonment of *traspatio* production, as was observed with some of the women producers of value-added products. Nevertheless, TO presents considerable income opportunities.

7.2 Traspatio Oaxaqueño and the Conceptual Framework: Shortcomings

As highlighted throughout the thesis, there are certain issues that prevent TO from questioning the capitalist model and creating democratic food systems. There are existing and sometimes contradictory interests between various actors (participants, leaders, government, etc.) involved in and affected by this initiative, which make it difficult for TO to address some of the objectives associated with the conceptual framework. These shortcomings are presented in the following sections.

Challenging the Neoliberal Food Regime

The food sovereignty movement constitutes a global reaction to the neoliberal food regime and a search for alternative food systems that are more respectful of the many actors that have been (further) marginalized in the past decades. As a very recent initiative, TO is providing support for women from economically vulnerable families through *traspatio* production, and in doing so, it is contributing to food security and to the revitalization of some of the cultural traditions that are central to Mexican food production, giving them more visibility. While this mission indeed goes against social inequalities, homogenization of cultures and concentration of resources and capital,

which are symptoms of the neoliberal food regime, the objectives associated with the value-added production phase of TO suggest a form of agrarian capitalism. The idea behind this stage is to gain greater access to local and regional markets and to increase households' income in order to improve and maintain food security and autonomy. As discussed, however, the current obstacle to greater economic benefits associated with value-added production is the absence of a stable market space to commercialize the products, an obstacle that TO leaders seek to address by acquiring a quality seal and expanding market opportunities. This observation confirms Jansen's (2015) idea of capitalism from below, with peasants seeking to participate in and benefit from commodity chains rather than to dismantle a system with the objective of creating an 'alternative agrarianism'. This author thus suggests that capitalism has deeply penetrated the sphere of agrarian production and it has become impossible to produce outside of the capitalist sphere.

The prevalence of capitalist structures certainly makes producers within the agrarian class compete against one another for productive resources and market access (Jansen, 2015). Therefore, TO leaders may have targeted women from economically vulnerable families as primary recipients of support for *traspatio* production, but these women represent a heterogeneous agrarian class that seeks to gain access to resources alongside or over others. In many cases, the discussion around enclosure mechanisms (the mechanisms by which common resources are captured and communities to which they are linked are excluded, as defined by Heynen and Robbins, 2005) overlooks local capital accumulation, class contradiction and local political struggles. The case of TO as an initiative promoting food sovereignty corresponds to this contradiction, where women are presented as a relatively homogenous group, but clearly have access to different levels and types of capital, and compete against each other (fieldwork observations). A clear example of the differences that exist within these communities is the question of time availability and how women who are not married or do not have young kids or elders under their care have more opportunities to participate in TO. Even more flagrant is the issue of politics, which in some cases determines the type of support that groups may get within the same community: as discussed in Chapter 4, interviewee #5 of San Nicolás

Quialana had experienced a different level of support depending on whether she associated with the PRI or PRD group.

Another manifestation of the link that exists between capital accumulation, class and politics is observed through the obstacles that women face in acquiring support without land ownership. In the studied villages, the land tenure system (private or communal *ejidos*) has an influence on the resources that the participants have access to, because it determines whether or not they are able to receive support from the federal government for various programs. Many of them require private land title documents in order to receive support, thus pushing participants towards land privatization and preventing those of villages that are still under communal land tenure from receiving the same support. Thus, an aspect that could be further explored is the link that exists between governmental support and the channeling of its political agenda. If the State conserves the right to expropriate *ejidatarios*, the latter do not have to pay property taxes, which represent a potential source of revenue for the State. Most importantly, as discussed previously, the neoliberal agenda that was implemented by the Mexican government seeks to attract foreign capital by offering safe investment environments. This explains at least in part why and how the federal government shapes agricultural policies and support in a way that indirectly encourages municipalities that remain under community-based land tenure to proceed to privatization; buyers in value chains tend to favor individuals who have secure landownership or usufruct rights, something that women have historically not had access to.

Bazán et al. (2008) discuss the impacts of external influences on organizations that seek to support alternative development in Central America and Mexico. These organizations, they state, are influenced by agendas that are external to theirs and that view development as synonymous to traditional poverty reduction. The pressure to adopt this view can be external, such as governments providing co-financing resources, or internal when certain institutional agendas become influential from within the organization. The case of TO is one that could arguably be subject to such influences; while the fieldwork only allows to make hypotheses regarding the impact of political agendas on the initiative, one could

expect to see its approach and priorities change with the funding model that they are seeking to adopt. The federal Mexican government is at the moment only involved in TO's activities by providing resources through specific programs (such as the ones providing chicken coops and raised beds), most of which are dependent on recipients being private landowners. The initiative's leaders' long-term objective of institutionalizing support for *traspatio* production at the federal level, however, increases the chances of having its agenda influenced with the government taking on the primary financing role. Massieu Trigo and Acuña Rodarte (2015) discuss the idea of capitalist dispossession and of communal ownership of the land as forms of resistance. Further research could examine these issues to determine if and how the State uses agricultural support to channel neoliberal policies. This examination would be a step towards ensuring that the redistribution of resources for peasant farmers and *traspatio* producers is genuine and permanent, and not based on a specific political agenda that may jeopardize these initiatives rather than contribute to a greater level of local autonomy. If the government supports small-scale agriculture through various programs, which requires recipients to adopt a certain land tenure regime, one can argue that this constitutes an indirect and structural form of violence that risk destabilizing the social networks that are central to TO. Massieu Trigo and Acuña Rodarte argue that such "conditionalities" create (or maintain) inequitable social relations. The food sovereignty paradigm, on the other hand, seeks to eliminate these inequalities, placing peasant farmers at the centre of agricultural policies and truly empowering them in the long run.

Moreover, the institutionalization of the TO model seems to be pursued through a certain form of clientelism. Indeed, as stated in Chapter 4, TO's exceptional access to the political sphere has so far relied on the involvement of the CCC, which is tied to the PRD. As Bazán et al. (2008) discuss, strong leadership within an organization can lead to greater negotiating power with financing agencies and access to longer-term 'programmatic' funding sources. The involvement of López Gómez with TO is such a case, his role within the CCC giving greater visibility to the initiative. Relying on these strong leaders can however be precarious, as the legitimacy of the organization may depend on their involvement and their eventual departure (with their contacts) may affect

the long-term success of the projects. Moreover, the financial model of an organization increasingly determines its institutional and political model, the former becoming more of a mission statement that can be considerably disconnected from everyday practices (Bazán et al., 2008). While this is not the case yet, the initiative's objectives and approach could very well be influenced by the political agenda that is being promoted by the CCC and the PRD and lose its independence. Whether or not the PRD gains or loses influence at the federal level in the next few years, relying on short-term funding streams, which are potentially tied to specific political agendas, can negatively affect the sustainability of TO. This leads to a neoliberal type of funding that proponents of the food sovereignty paradigm are working against.

Furthermore, as women's right to land ownership was adopted quite recently in Mexico, and because most owners are still men, there are still limits to their actual access to governmental programs. The changes that have been occurring through privatization have an impact on the space that women have access to, which can also be an issue: as the Mexican land tenure system is in a period of transition, private ownership, when accessible for women, may be more secure, but the size of communal lands is reduced. This may constitute a difficulty for women who do not have sufficient space to cultivate in their backyards, which was the case of some of the participants in the community of Valle Dorado, where participant observation was conducted. The different tradeoffs between private and communal land tenure remain to be explored.

The Shift Towards Nonhierarchical Development Models

The lack of differentiation between the various actors that we seek to empower within the food sovereignty movement, which has been described as one of its flaws (Patel, 2009; Jansen, 2015), is also observed within TO. The evaluation of agro-food systems sustainability through the lens of food sovereignty and agroecology highlights some grey areas when it comes to what type of farmer knowledge agricultural interventions should be based on and whether or not they fit into the agroecological approach. Agroecology calls for a shift to 'nonhierarchical development models'. According to the IAAST, this

shift must be accompanied by a higher respect for farmers' knowledge and for biodiversity. Though the potential for greater biodiversity has been discussed previously, it remains unclear, in the food sovereignty framework as well as in TO, whose knowledge is being referred to. Allowing peasants to participate in decision-making and design of food systems again does not necessarily mean that these peasants possess know-how and have demands that are aligned with organic, agroecological production. Assuming that all smallholders are against pesticides and GMOs is a mistake, as is assuming that all peasants belong to the same class and have access to the same resources. As Jansen (2015) states, "there is nothing inherent in farmer knowledge and local farming practices which makes them *a priori* and in a generalized way ecological" (p. 226). These assumptions in fact need to be further investigated and tested empirically in various socioeconomic, geopolitical and cultural contexts.

A central objective of the TO leaders is to revitalize *traspatio* production for its historical and cultural value. This type of agro-food production was an important part of the Mexican agricultural landscape in the past. However, half of the participants that were interviewed had no clear idea of what this very practice consists of, as they did not have a *traspatio* before becoming involved in the initiative and had no experience in this type of production. Therefore, it becomes unclear who value these traditions, where the knowledge is coming from and if the agro-food system that is being implemented is truly based on nonhierarchical structures, as promoted by both the SL, agroecology and food sovereignty perspectives. It seemed that the decisions that are made in relation with the objectives of the initiative and the methods that are used do not come from the participants but from TO leaders. While the result may be the revitalization of culture and tradition and enhanced food security, it appears that TO, from a food sovereignty framework of analysis, fails to clarify and take into account who values these cultural traditions most, and whose knowledge is central for revitalizing *traspatio* production. As discussed in Chapter 2, the cultural value that people associate with certain practices is what makes them meaningful, and is what enables forms of action and resistance that do not stem from the other four types of capital alone. In that sense, this issue needs to be further discussed and analyzed, for an unclear understanding of the benefits of these

cultural traditions on the part of the very people we are seeking to empower may explain the reluctance of potential participants when it comes to investing the necessary time and energy that TO requires. As mentioned earlier, the revitalization of cultural traditions is considered a key step towards economic and cultural decolonization.

The structure of TO and consequent observations regarding its approach, methods and objectives raises questions regarding whether or not it can really be described as grassroots. While the objective is to empower a portion of the population that has been marginalized through the neoliberal food regime, i.e. women from economically vulnerable families, the initiative itself has been created and remains managed by a few local leaders. Barkin (1997) states that policies cannot be sustainable and successful if they are implemented from above, without the direct participation of the intended beneficiaries. In this case, TO participants are involved in the decisions regarding the varieties that they wish to grow in their *traspatio* and their participation to different workshops and governmental programs. While the municipal committees of Vicente Guerrero and Reyes Mantecón were formed by election, during which participants chose their own representatives, a PRD deputy named the president of the municipal committee of San Nicolás Quialana, who appointed her own vice-president (her daughter). Be that as it may, TO leaders are essential to access support from external organizations (such as the federal government and the CCC) and municipal committees remain, at least until now, a way to represent the women and to address their most pressing needs and to communicate them to the council. This seems to be prioritized over the consolidation of autonomous groups. Sustainable development should however give people more than a consultative role, allowing them to actively participate in the redesign of productive systems (Barkin, 1997). Fieldwork interviews and observations do not allow to conclude that the initiative allows women from economically vulnerable families to participate in the redesign of the food system that is being created, but rather to benefit from it. It does, however, expose these marginalized actors to an alternative narrative regarding the production, distribution and consumption of food. By doing so, it gives them access to productive resources (particularly under the form of human and social capital) that may allow them to better

understand the deeper implications of existing and alternative food systems and to eventually reclaim these systems.

7.3 Concluding Thoughts on Generating Ideals and Dialogues

The food sovereignty movements emerged as local and translational actors networks responding and contesting the globalizing neoliberal and agrarian capitalist agenda, which has shaped today's dominant food system. Although it is increasingly acknowledge that the agro-industrial model of development is socially, economically and ecologically unsustainable, the fact that food sovereignty aims at transforming dominant forces and power structures that are engrained in the global political economy makes it very difficult to think or argue that food sovereignty principles will become the standard model of food production and development in a foreseeable future (Wittman et al., 2010). If it constitutes a way of thinking that puts forth a set of ideals for alternative and adapted food systems, it is normal that the most “core shaking” principles behind food sovereignty, i.e. the challenging and dismantling of an omnipresent neoliberal and capitalist system, are harder to defend and apply. However, initiatives such as TO offer different values and ideals, which do not correspond to the current model of concentration of power, homogenization of cultures or environmental and social destruction. The recent food crises have yet again sounded the alarm on the neoliberal food regime and clearly demonstrated the need to reconsider the criteria shaping agro-food systems. We have seen a growth in efforts to stabilize local food supplies, many of these seeking to understand how the globalizing food system is hindering women's opportunities to participate in value chains (Rubin and Manfre, 2014).

Arguments are increasingly being made that ending hunger and poverty requires the eradication of gender inequalities in agricultural value chains and highlight that past efforts failed to open agricultural markets that are sustainable, equitable and commercially viable (Rubin and Manfre, 2014). In that sense, initiatives such as TO can begin to propose a different set of values and practices regarding social and political relations and exclusion processes within food systems; one that takes into consideration

the difficulties faced by women from economically vulnerable families and that seeks to alleviate them. While it may be working within the capitalist sphere that Jansen (2015) describes as omnipresent and inevitable, TO contributes to a crucial objective of the food sovereignty model: giving greater attention to marginalized actors of the globalizing agro-food system, highlighting their daily struggles and conditions, and allowing them to form alliances and improve their everyday lives. The initiative is clearly facing constraints associated with the neoliberal development agenda that is put forth by Mexican governments. However, by seeking to lessen their dependence on the dominant agro-food system for food security, TO members may be contributing to the politicization of new actors who, by acquiring new tools and productive resources, can be better equipped to defend their rights and livelihoods, and to gain greater attention from the Mexican government.

A crucial role of local and transnational food movements and initiatives, at this point in time, is therefore of raising these very important questions regarding social, ecological and economic sustainability and allowing various actors to generate a collective pressure and force of change vis-à-vis the neoliberal food regime. Paul Nicholson, former member of the International Coordinating Commission of LVC suggests that the food sovereignty movement seeks to develop alliances with many producer, distributor and consumer movements, finding cohesion, gaining legitimacy and generating urban-rural dialogues and technical models (Wittman et al., 2010). In that sense, this research has demonstrated that TO clearly contributes to the building of these alliances between actors that have been marginalized through the neoliberal process, resulting in the generation of a technical model (for *traspatio* production) and a potential space of dialogue within the Mexican political sphere. Between 1999 and 2009, several national governments such as Venezuela, Mali, Bolivia, Ecuador, Nepal and Senegal included food sovereignty in their constitutions and laws. While it is difficult to determine to what extent these countries will be able to implement transformative changes in agriculture and food systems, it is important to recognize that it opens up space for political debates (Wittman et al., 2010). One can only hope that the national government of Mexico will also consider this legal path. There are still grey areas regarding the specific actors that food sovereignty

movements seek to empower, the potential of agroecological production methods to feed the planet and how to go about deeply transforming the neoliberal food regime. Different beliefs and utopias regarding more ecological agronomic approaches such as the one put forth by TO, however, can sustain social movements and generate much needed interest in the field of alternative agro-food systems.

Annex 1 – Interview Guide for Participants

1. Where were you born? Do you live alone or with your family (or other people)?
Can you describe your household (number of people, sexes, occupation) and their involvement in *Traspatio Oaxaqueño* (TO)?
2. Do you have any experience in family farming? If not, what types of job/occupation have you had in the past?
3. Since when are you involved in this project? How and why did you get involved? How would you describe your role?
4. Can you explain how the project started, for example who took the initiative, et what context and what were the objectives?
5. How many people (women and men) are involved in the project here in your community? Are there any people that do not participate and why?
6. Can you describe your *traspatio* (size, soil quality, water access, individual or collective, type of cultivations and animals, installations, cultivation methods, inputs)?
7. Did you have a *traspatio* before participating in TO? If so, how has it changed since you started participating in TO?
8. What resources (human, natural, economic, know-how, knowledge and skills, installations, lobbying, logistical support, legal, financial, etc.) were used and necessary to start/extend your *traspatio* and how did you acquire them?
9. What are the principal reasons for your implication in the project; revenues, food security, cultural identity (customs, practices, food habits, traditional knowledge, contact with the land/nature/farm work), creation of networks, reinforcement of family and/or community ties, solidarity, fight for justice, social and/or socio-political change, the environment, other?
 - a) Approximately what percentage and what types of *traspatio* products (individual or collective) are consumed by your household? Can you describe their food (or other type of) contribution for your household (type of products that are consumed, variety, quality, quantity)?

- b) How do you acquire the food that is necessary to complement what you are producing through TO?
 - c) Approximately what percentage of *traspatio* (individual or collective) products are destined to the market (or other selling point) and what percentage does that represent in terms of revenues for your household?
 - d) Do you practice other forms of trading?
 - e) What is the impact of the project on the conservation of traditional agricultural practices?
10. Are you the owner of the land on which your *traspatio* is situated? Can you tell me about the influence of *ejidos* on *traspatio* agriculture?
 11. What is the role of the *Consejo Oaxaqueño del sistema de producción de traspatio*?
 12. How is the work organized/divided/performed? Who takes the decisions regarding the types of methods and cultures, the localization of *traspacios*? Are you involved in the decision-making process?
 13. What are the opportunities or advantages of participating in this agricultural network?
 14. Would you like to extend your *traspatio*? What are the principal obstacles/difficulties?
 15. What impacts or results have you observed linked to this project? What are you hoping for on the medium and long run? Have you ever questioned your participation in this project, and if so for which reasons? What aspects need to be improved?
 16. Is there anyone else with who I should talk to learn more about this project?
Would it be possible to introduce me, or to give them my information so that they can contact me?
 17. Are you familiar with the concept of food sovereignty? Can you tell me about your interpretation of this concept?
 18. Are you familiar with the concept of sustainability? Can you tell me about your interpretation of this concept?

19. Do you know other initiatives in Oaxaca that are similar to TO, in the sense that it seeks to increase the food sovereignty and autonomy of the oaxacan population?

Annex 2 – Interview Guide for Members of the Council

1. Can you describe your role in *Traspatio Oaxaqueño* (TO)? How long have you been involved in this initiative?
2. Can you explain how the project started, for example who took the initiative, in what context and what were the objectives? Have these objectives evolved?
3. What resources (human, natural, economic, know-how, knowledge and skills, physical work, installations, etc.) were used and necessary at the individual/collective levels and how did you acquire and manage them? Have the needs evolve in terms of resources?
4. Did you receive any help from NGOs, political groups or other organizations to start or consolidate this project (CCC, SAGARPA, SEDESOL)? What type of help and from which organizations?
5. What is the role of the CCC?
6. What has been the influence of authorities, political groups or the government (local, municipal, state, federal)? Is there a link between TO and the political party PRD?
7. Until now, who has provided the most support? How do you ask for support?
8. What have been the principal obstacles/difficulties to start this project (laws, property rights, participation, land access, resource quality such as soil, water, seeds or infrastructures, skills/knowledge), individually and collectively? Have these obstacles changed?
9. There seems to be issues linked to water availability right now in many locations, which affect women's capacity to cultivate products in their *traspacios*. Are there any efforts or plans to rectify this situation?
10. It seems that the use of *aguas negras* in the cultivation of market/store products is something that highly preoccupies the women that participate in TO. Can you tell me about these *aguas negras* (where they are from, from which water source, etc.)?
11. Have you felt resistance/opposition from any groups or individuals? If so, from which groups/individuals and why?

12. How many participants (individuals, families, communities) are involved today, how are they involved and how often? Is the work primarily done individually or collectively?
13. Where are the participating communities located? Are there any in mountainous regions? What types of communities (rural, peri-urban, indigenous, peasants, forests)? Do you have a map identifying the various areas or communities that are involved today?
14. What are the different socio-economic, gender, ethnic, cultural and generational profiles of the participants?
15. Are there any specific criteria to become a TO member or to participate in the project (*ejidatario*, age, sex, experience, training, number of hours, size of the land, size of revenue, etc.) and why?
16. What determines whether or not men can participate and how does this affect the support that the different groups receive?
17. Does the project seek to support indigenous communities? What defines an indigenous community?
18. How is the recruitment or invitation to participate in TO done? Why is it done that way? Do you think that there would be ways to make the process more inclusive?
19. What is the role and functioning of the *Consejo Oaxaqueño del sistema de producción de traspatio*?
 - a) How many members are there in the council and how were they chosen? Have there been any changes since the beginning of the project and why?
 - b) Is there a process in place to ensure a rotation of the leadership?
 - c) How frequently does the council meet and what are its specific responsibilities?
20. What is the influence of each one of your organizations (COVORPA, *Caravana cultural y arte Oaxaca*, etc.)? Do they affect the distribution of resources (financial, veterinarians, engineers, agronomists, etc.) that are available for each TO group? Do you share them?
21. What is the role of municipal committees? Are there always specific roles or do they change from one group to another?

22. Can you tell me about the influence of the land property system (*ejidal*, communal, private) on *traspasio* agriculture? Do the *ejidal* assemblies influence the project?
23. Are there any other groups, formal or informal, that have an influence or that are in charge of taking decisions and/or of organizing activities that are directly related to TO?
24. Are the decisions taken transparently and consensually between all or the participants (example: types of workshops, seeds, etc.)? What processes have been established to manage/to take into consideration the necessities and preferences of the majority?
25. Is there a “basic program” in terms of support for the different groups? How are the specific forms of support determined for the different groups (types de seeds, workshops, etc.)?
26. Is the information and knowledge diffused/shared within and between communities, with external agents and/or local or other markets and how?
27. What are your expectations in terms of results in the short and long run for this project?
28. Have you already observed impacts related to this project on the preservation of culture, skills and/or traditional knowledge? Biodiversity conservation? Subsistence methods? Intergenerational relationships? Participants’ and communities’ individual and collective wellbeing?
29. What are the opportunities and advantages of being involved in this agricultural network?
30. What aspects need to be improved or what are the principal difficulties that you are facing to make these improvements?
31. Can you tell me about your interpretation of the concept of food sovereignty?
32. Can you tell me about your interpretation of the concept of sustainability in the context of food production systems?
33. Do you know of any other initiatives in Oaxaca that are similar to TO, in the sense that they are seeking to increase the food sovereignty and autonomy of the Oaxacan population?

34. Are there any documents or articles related to TO that I could consult?
35. Are there any assemblies, workshops or events to which I could assist to better understand this project?
36. Are there any other people with who I should talk to learn more about TO (SAGARPA, SEDESOL, CCC members)? Would it be possible to introduce me or to give them my information for them to contact me?
37. Do you have a *traspatio* and if so can you describe it (size, soil quality, water access, individual or collective, type of cultivations and animals, installations, cultivation methods, inputs)?
38. Did you have a *traspatio* before participating in TO? If so, how has it changed since you started participating in TO?
39. Where were you born? Do you live alone or with your family (or other people)? Can you describe your household (number of people, sexes, occupation) and their involvement in (TO)?
40. Do you have any experience in family farming? If not, what types of job/occupation have you had in the past?
41. Are you the owner of the land on which your *traspatio* is situated?
42. How many people (women and men) are involved in the project here in your community? Are there any people that do not participate and why?
43. What are the principal reasons for your implication in the project; revenues, food security, cultural identity (customs, practices, food habits, traditional knowledge, contact with the land/nature/farm work), creation of networks, reinforcement of family and/or community ties, solidarity, fight for justice, social and/or socio-political change, the environment, other?
 - a) Approximately what percentage and what types of *traspatio* products (individual or collective) are consumed by your household? Can you describe their food (or other type of) contribution for your household (type of products that are consumed, variety, quality, quantity)?
 - b) Approximately what percentage of *traspatio* (individual or collective) products are destined to the market (or other selling point) and what percentage does that represent in terms of revenues for your household?

- c) Do you practice other forms of trading?
44. Have you ever questioned your participation in this project, and if so for which reasons?

Annex 3 – Interview Guide for Members of Supporting Organizations

1. Can you describe (...)’s mission and its link with family farming and food security?
2. Can you describe your role within (...)?
3. Does (...) provide support to *Traspatio Oaxaqueño* (TO) and if so, since when and for which reasons?
4. Can you describe the type of support (financial, relational, legal, knowledge/resources)?
5. Are there any other organizations that support this project?
6. Do you know anything about the context in which TO started? Can you tell me about it?
7. What have been the major obstacles to this initiative and how were they dealt with?
8. Do you know of any groups or individuals that are opposed to this project?
9. What impacts, negative or positive, have you observed until now?
10. Are there any other people with who I should speak to learn more about this project? Would it be possible to introduce me, or give them my information so that they can contact me?

Annex 4 – Interview guide for government representatives

1. Can you describe your job and its link (and the link of the governmental entity for which you work) with the themes of family farming and food security?
2. Are there any laws or rules around the *traspatio* production in Oaxaca? What is the attitude of the government towards this type of family farming project?
3. Do you know the *Traspatio Oaxaqueño* (TO) initiative and can you tell me about it (the context in which it started, the objectives, etc.)?
4. How does (...) support TO? Are there different types of projects/support?
5. How are the projects that you support chosen (are they always contests?)? What are the criteria and why?
6. What is the perspective, to your knowledge, of the government of the city and state of Oaxaca on this initiative? Do they have a role or an influence?
7. To your knowledge, are there any negative or positive impacts associated with this initiative?
8. Are there any groups or individuals that oppose or support this project?
9. Are there any documents or studies that are relevant and that I should read (on the land property system, on *traspatio* or other types of agriculture, on governmental laws and policies)?
10. Does the land property system have an influence on family farming/*traspatio* projects?
11. Can you describe the land property system (private, ejidal) in Oaxaca and the distribution/division/proportion of the types of properties? Do you have any recent data or documents that I could consult to help me better understand the how the land property system works in Oaxaca?
12. Are there any other people with who I should discuss to learn more about this project? Would it be possible to introduce me or to give them my information so that they can contact me?

Annex 5 – Recruitment Document for Interviews

My name is Catherine Martel and I am doing a research project in the context of a Master's degree at the School of International Development and Globalization Studies of the University of Ottawa, in Canada. I would like to explain my research project so that you can decide whether you would like to participate.

My research project seeks to understand how and why the *Traspatio Oaxaqueño* (TO) initiative was created; I wish to understand how it can contribute to the improvement of living conditions of individuals, families and communities that participate. More precisely, I want to explore to what extent the project allows to reinforce food security and sovereignty of participants. I wish to determine whether or not there is a link between this type of collective project (creating networks, based on a different agricultural model which seems to be more local and democratic) and the reinforcement of the participating communities, families and individuals' autonomy, and, consequently, with the sustainability of the agricultural systems that are created.

The participants of this study are people that play a key role within the TO project: participants that have a *traspatio*, members of the project's council and/or coordinators, members of supporting organizations or government representatives. Individuals that are interviewed must be 18 years or older, and I will try to conduct interviews with men as well as with women.

I would therefore like to do an interview of approximately one hour with you, at a time and location that is convenient for you. I will ask you questions about the functioning and structure of the project, your role, the types of resources that you use and produce and how they are managed. I would also like to talk about the objectives, obstacles and opportunities that are associated with the TO project. Know that if you accept to participate in this project, all the information that is collected will remain confidential. Moreover, you may refuse to answer any questions that you do not want to answer.

Neither your name nor information or pictures that could lead to your identification will be used.

Do you have any questions?

Are you interested in participating in this research project?

Annex 6 – Recruitment Document for Participant Observation

My name is Catherine Martel and I am doing a research project in the context of a Master's degree at the School of International Development and Globalization Studies of the University of Ottawa, in Canada. I would like to explain my research project so that you can decide whether you would like to participate and if I can attend this event/activity.

My research project seeks to understand how and why the *Traspatio Oaxaqueño* (TO) initiative was created; I wish to understand how it can contribute to the improvement of living conditions of individuals, families and communities that participate. More precisely, I want to explore to what extent the project allows to reinforce the food security and sovereignty of participants. I wish to determine whether or not there is a link between this type of collective project (creating networks, based on a different agricultural model which seems to be more local and democratic) and the reinforcement of the participating communities, families and individuals' autonomy

The participants of this study are people that play a key role within the TO project: participants that have *traspatio*, members of the project's council and/or coordinators, members of supporting organizations or government representatives. Individuals that are interviewed must be 18 years or older, and I will try to conduct interviews with men as well as with women.

I would therefore like to attend this event/activity to take notes and use the information in my research project. This will allow me to better understand how TO works and the types of activities that are associated with it. Know that if you accept to participate in this project, all the information that is collected will remain confidential. Neither your name nor information or pictures that could lead to your identification will be used.

Do you have any questions?

Do you allow me to participate in this event/activity?

Do you allow me to take pictures?

Annex 7 – Consent Form

(To be presented orally for oral consent on the voice recorder)

My name is Catherine Martel and I am doing a research project in the context of a Master's degree at the School of International Development and Global Studies of the University of Ottawa, in Canada. I would like to explain my project so that you can decide whether you agree to participate. This will also allow you to ask questions and/or request further information on my project.

Title of the project

Traspatio Oaxaqueño – Case study on the implementation of food sovereignty principles

Responsible people

Investigator: Catherine Martel

Thesis director: Marie-Josée Massicotte, University of Ottawa, School of political studies

Any request for information or complaint regarding the ethical conduct of this research project can be directed directly to me or to the Office of research ethics and integrity of the University of Ottawa: 550 Cumberland street, room 154, Ottawa, Ontario, Canada, K1N 6N5, 1 (613) 562-5387, ethique@uottawa.ca

Project's objectives

My research project seeks to understand how and why the *Traspatio Oaxaqueño* (TO) initiative was created; I wish to understand how it can contribute to the improvement of living conditions of individuals, families and communities that participate. More precisely, I want to explore to what extent the project allows to reinforce the food

security and sovereignty of the participants. I wish to determine whether or not there is a link between this type of collective project (creating networks, based on a different agricultural model which seems to be more local and democratic) and the reinforcement of the participating communities, families and individuals' autonomy.

Reason and nature of participation

I would therefore like to do an interview of approximately one hour with you, at a time and location that is convenient for you. I will ask you questions about the functioning and structure of the project, your role, the types of resources that you use and produce and how they are managed. I would also like to talk about the objectives, obstacles and opportunities that are associated with the TO project. I am using a basic interview guide, but you are encouraged to discuss anything that you judge relevant to this research or to suggest/elaborate on themes that you consider particularly important. This interview will be, with your consent, recorded on a voice recorder.

Potential advantages of participating in the research

Your participation in this research may contribute to a greater recognition of the positive repercussions that are associated with alternative food systems and to a modification of the perspective and attitude of political and governmental authorities towards this type of project. Moreover, this project seeks to contribute to a deeper understanding of the methods and processes that allow for the improvement of the living conditions and food security and sovereignty of rural and semi-rural communities. I also hope that it can provide data and elements of analysis that could be useful to TO. My final project (or a summary of the main results and conclusions in Spanish) will be sent to TO's council. I hope that this can help TO members promote the initiative and/or reflect on the project and its objectives.

Potential inconveniences or risks associated with the participation

No significant inconvenience has been identified with this research, other than the time that you will dedicate to this interview. In order to minimize this inconvenience, you are invited to choose the time and place of the interview. Do not hesitate to ask that the interview be suspended or rescheduled at any moment if you need to take a break.

Confidentiality

Know that the information that will be collected during the interview will be saved in a protected research folder, to which only myself and my thesis director will have access. Only the necessary information will be conserved. This may contain information regarding your sex, age, ethnic origin, habits, photos of your *traspatio* or any other information relevant to the project.

All of the information collected during this research will remain confidential. Neither your name nor any information leading to your identification will be used. I will use pseudonyms.

The information collected during this interview will be used for research purposes to meet the research objectives that were explained before.

Right to opt out of the research or to refuse to answer

Your participation in this project is voluntary. You remain free to end it at any moment or to refuse to answer any question without justification or suffering any prejudice.

If you decide to opt out of the research, I will ask you whether you want me to destroy any audio or written documents associated with your interview. You will always be allowed to reconsider your decision to participate.

Free and informed consent, to be recorded on the voice recorder

Do you have any questions? I am giving you a copy of the consent form. If you have any questions or concerns, you can always communicate with me or directly with the office of research ethics and integrity.

Based on the information that was presented, do you agree to participate in this research?

Do you agree that I record the interview so that I can go back to our discussion and make sure that I understand well?

Finally, do you agree that I take photos of your *traspatio* or other activities related to TO?

Document given to the participant on the DATE AND LOCATION:

Researcher's declaration

I, _____, researcher, declare that I am responsible for the research project. I agree to comply with my obligations and to inform the participant of any change that could modify the nature of the consent.

Researcher's signature: _____

Signed in _____, on _____

Annex 8 – Consent Form for Key Roles

My name is Catherine Martel and I am doing a research project in the context of a Master's degree at the School of International Development and Global Studies of the University of Ottawa, in Canada. I would like to explain my project so that you can decide whether you agree to participate. This will also allow you to ask questions and/or request further information on my project.

Title of the project

Traspatio Oaxaqueño – Case study on the implementation of food sovereignty principles

Responsible people

Investigator: Catherine Martel

Thesis director: Marie-Josée Massicotte, University of Ottawa, School of political studies

Any request for information or complaint regarding the ethical conduct of this research project can be directed directly to me or to the Office of research ethics and integrity of the University of Ottawa: 550 Cumberland street, room 154, Ottawa, Ontario, Canada, K1N 6N5, 1 (613) 562-5387, ethique@uottawa.ca

Project's objectives

My research project seeks to understand how and why the *Traspatio Oaxaqueño* (TO) initiative was created; I wish to understand how it can contribute to the improvement of living conditions of individuals, families and communities that participate. More precisely, I want to explore to what extent the project allows to reinforce the food security and sovereignty of the participants. I wish to determine whether or not there is a link between this type of collective project (creating networks, based on a different

agricultural model which seems to be more local and democratic) and the reinforcement of the participating communities, families and individuals' autonomy.

Reason and nature of participation

I would therefore like to do an interview of approximately one hour with you, at a time and location that is convenient for you. I will ask you questions about the functioning and structure of the project, your role, the types of resources that you use and produce and how they are managed. I would also like to talk about the objectives, obstacles and opportunities that are associated with the TO project. I am using a basic interview guide, but you are encouraged to discuss anything that you judge relevant to this research or to suggest/elaborate on themes that you consider particularly important. This interview will be, with your consent, recorded on a voice recorder.

Potential advantages of participating in the research

Your participation in this research may contribute to a greater recognition of the positive repercussions that are associated with alternative food systems and to a modification of the perspective and attitude of political and governmental authorities towards this type of project. Moreover, this project seeks to contribute to a deeper understanding of the methods and processes that allow for the improvement of the living conditions and food security and sovereignty of rural and semi-rural communities. I also hope that it can provide data and elements of analysis that could be useful to TO. My final project (or a summary of the main results and conclusions in Spanish) will be sent to TO's council. I hope that this can help TO members promote the initiative and/or reflect on the project and its objectives.

Potential inconveniences or risks associated with the participation

No significant inconvenience has been identified with this research, other than the time that you will dedicate to this interview. In order to minimize this inconvenience, you are

invited to chose the time and place of the interview. Do not hesitate to ask that the interview be suspended or rescheduled at any moment if you need to take a break.

Confidentiality

Know that the information that will be collected during the interview will be saved in a protected research folder, to which only myself and my thesis director will have access. Only the necessary information will be conserved. This may contain information regarding your sex, age, ethnic origin, habits, photos of your *traspatio* or any other information relevant to the project.

All of the information collected during this research will remain confidential. Given your role within TO, I have to inform you that it is possible that the use of certain information collected during this interview leads to your identification. You therefore have the option of being cited directly with your name or anonymously (with a pseudonym).

The information collected during this interview will be used for research purposes to meet the research objectives that were explained before.

Right to opt out of the research or to refuse to answer

You participation in this project is voluntary. You remain free to end it at any moment or to refuse to answer any question without justification or suffering any prejudice.

If you decide to opt out of the research, I will ask you whether you want me to destroy any audio or written documents associated with your interview. You will always be allowed to reconsider your decision to participate.

Free and informed consent, to be recorded on the voice recorder

Do you have any questions? I am giving you a copy of the consent form. If you have any questions or concerns, you can always communicate with me or directly with the office of research ethics and integrity.

Based on the information that was presented, do you agree to participate in this research? Given your role within TO, do you wish to be cited anonymously or do you give me permission to use your name?

Do you agree that I record the interview so that I can go back to our discussion and make sure that I understand well?

Finally, do you agree that I take photos of your *traspatio* or other activities related to TO?

Document given to the participant on the DATE AND LOCATION:

Researcher's declaration

I, _____, researcher, declare that I am responsible for the research project. I agree to comply with my obligations and to inform the participant of any change that could modify the nature of the consent.

Researcher's signature: _____

Signed in _____, on _____

Annex 9 – List of Interviews

1. February 18th 2015: President (woman) of the TO municipal committee of San Nicolás Quialana
2. February 18th 2015: Participants (mother and two daughters) of the TO group of San Nicolás Quialana
3. February 26th 2015: Participant (woman) of the TO group of San Nicolás Quialana
4. February 26th 2015: Participant (woman) of the TO group of San Nicolás Quialana and her husband.
5. February 26th 2015: Participant (woman) of the TO groups of San Nicolás Quialana
6. March 6th 2015: Vice-president (woman) of the TO municipal committee of Reyes Mantecón
7. March 6th 2015: Participant (woman) of the TO group of Reyes Mantecón
8. March 10th 2015: Participant (woman) of the TO group of Reyes Mantecón and her husband
9. March 10th 2015: Participants (mother and daughter) of the TO group of Reyes Mantecón
10. March 10th 2015: Participant (woman) of the TO group of Reyes Mantecón
11. March 16th 2015: Treasurer (woman) of the TO group of Vicente Guerrero
12. March 16th 2015: Participant (woman) of the TO group of Vicente Guerrero
13. March 16th 2015: Participant (woman) of the TO group of Vicente Guerrero
14. March 17th 2015: Secretary (man) of the municipal committee of Vicente Guerrero
15. March 17th 2015: Participant (woman) of the TO group of Vicente Guerrero
16. March 17th 2015: Participants (mother, daughter and daughter-in-law) of the TO group of Vicente Guerrero
17. DATE: INDESOL representative
18. DATE: Efraín Aragón Ibañez
19. March 27th 2015: Lourdes Diego Cervantes

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