

BECOMING FARMERS

Opening Spaces for Women's Resource Control in Calakmul, Mexico

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Abstract: Despite empirical findings on women's varied and often extensive participation in smallholder agriculture in Latin America, their participation continues to be largely invisible. In this article, I argue that the intransigency of farming women's invisibility reflects, in part, a discursive construction of farmers as men. Through a mixture of quantitative and qualitative methods, including interviews with one hundred women in Calakmul, Mexico, I demonstrate the material implications of gendered farmer identities for women's control of resources, including land and conservation and development project resources. In particular, I relate the activities of one women's agricultural community-based organization and the members' collective adoption of transgressive identities as farmers. For these women, the process of becoming farmers resulted in increased access to and control over resources. This empirical case study illustrates the possibility of women's collective action to challenge and transform women's continued local invisibility as agricultural actors in rural Latin American spaces.

Throughout rural Latin America and the Global South, women actively participate in farming activities. Although the nature of participation varies geographically and with factors such as class and ethnicity, research over the past three-plus decades documents that, for households with agriculture as a significant component of livelihood activities, women farm. However, in Latin America as a generalized whole, the reality of women farming remains at odds with a strongly gendered construction of a farmer identity. Who is a farmer? As other researchers have demonstrated amply (Brunt 1992; Zapata 1996), in most parts of Latin America, it is men who are constructed as farmers, whereas women are constructed as helpers and housewives. This social determination of who gets to be a farmer matters. In rural farming spaces increasingly influenced over the past decades by both conservation and development projects, project resources are directed to farmers. And farmers are discursively constructed as men.

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Directing flows of farming resources to men is nothing new. Research on farming extension has pointed to the historical biases in the provision of information and material resources to male farmers (Saito and Weidemann 1990). Biases flowed in large part from sociocultural expectations of the extension agents themselves, who were usually men. There has also been much research on the biased nature of land reform programs throughout the world, with men receiving the vast bulk of titles to land for farming (Agarwal 1994, 2003; Deere and León 2001a). More recently, both development and conservation programs directed at supporting farmers have incorporated an emphasis on including women as beneficiaries under arguments of equity and improved family well-being. Nonetheless, the majority of project resources are still directed toward men. We can hypothesize a reason for this gender disparity in the application of these programs: a continued notion of cooperative households. Despite much evidence to the contrary (Dwyer and Bruce 1988; Blumberg et al. 1995), what benefits the main male member of the household is assumed to benefit all members. I hypothesize an additional and complementary reason for the continued disparity, especially in rural spaces of Latin America—the in-place, discursive construction of farmer identities.

This article takes as its starting point the correspondence of this discursive construction with women's restricted access to and control over resources for farming, including both land and project resources. The case I present from Calakmul, Mexico, documents the intransigency of women's invisibility as agricultural actors in Latin America. Even more important, the case examines the activities of one particular women's agricultural community-based organization (CBO) and the members' adoption of collective and transgressive identities as farmers. This article thus explores the possibility for women's collective action to open small windows through which they can challenge and transform this invisibility.

In the municipality of Calakmul, in the southernmost reaches of Mexico's Campeche State, most households remain both impoverished and reliant on semisubsistence agriculture. Although male labor migration is emerging as an ever more important component of some households' livelihood strategies (Schmook and Radel 2008; Radel, Schmook, and Chowdhury 2010), agricultural activities remain an important source of both sustenance and income for many households. And, as has been found elsewhere in Mexico and Latin America, women in the *ejidos* of Calakmul are active land users and laborers, yet they are not considered farmers.¹ This has had direct implications for women's access to and control over re-

1. *Ejididos* are collective land-tenure units established through Mexico's agricultural reform earlier in the twentieth century. Although a legal process is in place to privatize the ejidal system, in Calakmul, little movement toward privatization has occurred (Haenn 2006). Nonetheless, most land has been subdivided into parcels assigned to individual *ejidatarios*.

sources of various kinds. During the past decade and a half, an important component of household income stemmed directly from participation in development and/or conservation projects (Radel forthcoming) and from qualifying for direct state payments to farmers. Few local sources for income generation exist outside of agriculture and agriculturally based supports.² In addition, the history of the region (as an agricultural frontier and destination for migrants in search of land) links to a strong ethos of the land belonging to those who work it (Haenn 2005). Farming land is intimately associated with having land. Thus, being a farmer socially and politically legitimizes access to and control over resources—land, as well as project-based cash, credit, and materials.

In Calakmul, women have much less access to and control over these resources than do men, because as locally constructed, men are farmers and women are not. I begin with a review of the literature in three different areas brought together by this case: (1) women's invisibility in agriculture, (2) "housewifization" in agricultural frontiers, and (3) gendered rural identities. Following discussion of my study and methods, I present findings on gender disparities in Calakmul in resource access and control, despite women's significant participation in agricultural production. I also describe the collective activities of one women's agricultural CBO and illustrate how the group members actively work to disrupt the ideology of men as farmers and women as housewives and helpers, discussing the impact of this work on their ability to access and control resources.

WOMEN'S INVISIBILITY IN AGRICULTURE

Researchers began giving greater recognition to roles women play in agricultural production following publication of Boserup's (1970) seminal work, in which the author highlights the significant undercalculation of women's labor in agricultural production. This work subsequently led to numerous researchers' efforts to make women's contribution to agricultural production more visible (Deere and León 1982, 1987; Sachs 1996). Much of this attention occurred within an agricultural development policy context that aimed to increase agricultural productivity and household food security: making women's productive contributions to agriculture more visible would allow for more effective policy and improved agricultural efficiency (Davison 1988). In the late 1980s, research on women and agriculture shifted toward more detailed explorations of the intersection of

2. A notable exception is Oportunidades, a federal program to alleviate poverty and build human capital through a focus on mothers (Molyneux 2006). Payments under the program are directed toward women, primarily on behalf of their school-aged children. This article does not address this program; however, it is likely that payments remain under the control of many of the women who receive them.

gender with agricultural organization and production, and with agricultural change (Davison 1988). Nonetheless, work on gender and agriculture into the 1990s continued to stress the importance of the visibility question, which reflects the intransigency of women's invisibility in agriculture.

Sachs (1996) provides a somewhat more recent attempt to explore the relationship between gender and agriculture from a global perspective, drawing on twenty-five years of scholarship since Boserup's (1970) landmark work. Sachs argues that making visible women's agricultural productive labor has not been enough to improve the socioeconomic position of women. She highlights two important lessons from the research on women and family farms in particular. First, women's significant farming labor does not translate into income control, decision making, or improvements in status. Second, attempts to divide labor tasks into productive and reproductive have been frustrating: women engage in multiple tasks at the same time, and single tasks serve multiple purposes. The difficulty of dividing and categorizing labor tasks as either reproductive or productive contributed historically to the undercalculation of women's productive labor contributions in agriculture and assists in explaining the continued perception and portrayal of women's labor as no more than supplementary to men's (women as agricultural helpers).

For Latin America, Deere and León (1987), in the introduction to their edited collection, argue for understanding smallholder agricultural systems as family farming systems, in which the role played by women has long been kept invisible. Deere and León identify women's participation in these farming systems as heterogeneous but argue that participation seems to be heaviest among the poorer strata of the peasantry. As men find they need to switch to wage labor, women take over subsistence agriculture as an extension of their domestic work. Deere and León also found that women's participation in agricultural wage labor seemed to be increasing, particularly in labor-intensive export agriculture and agribusiness (see also Arizpe 1987; for more current research, see Lee 2010).

Scholarship on women and agriculture in Mexico specifically has followed the trends and themes present in the literature on women and agriculture throughout the rural Global South. Early research reported a relatively rigid gendered division of agricultural labor in rural Mexico (Arizpe 1987; Arizpe and Botey 1987). Work in the 1990s continued to explore this labor division (e.g., Fowler-Salamini and Vaughan 1994; González and Salles 1995), thereby exposing a diversity of arrangements and reflecting differences in both ethnic and local economic conditions. Other work on gender and agriculture in Mexico has focused on specifying the effects on women of agricultural policies (Arizpe and Botey 1987) and recently of neoliberal policies counterreforming Mexico's agrarian reform (Stephen 1996; Deere and León 2001b; Hamilton 2002). Deere and León (2001a, 2001b) argue that land privatization and Programa de Certificación

de Derechos Ejidales y Titulación de Solares Urbanos (PROCEDE) may negatively affect women in Mexico, as family usufruct land (held largely in men's names) transitions into individual (primarily male-owned) private property.³ This research illustrates the continued invisibility of women as farmers, in the policy realm, despite evidence of their considerable participation in agricultural activities.

In the 1990s, a spate of research addressed the feminization of agriculture, or women's increasing participation in farming, in Mexico (González and Salles 1995; Lara Flores 1995; Valdés, Arteaga, and Arteaga 1995; Espinosa 1998). However, this feminization addresses women's increased participation in agricultural labor and does not reflect any change in who is defined as a farmer. Lazos (1995), in her research in the southern part of Yucatán State, found that in response to rural economic crises, women intensified agricultural field labor contributions but without any value placed in this increased contribution by the community or women themselves. Espinosa (1998) argues that the feminization of agriculture in Mexico is a response to rural crises, with women assuming longer and more intensive work days by necessity. Fowler-Salamini and Vaughan (1994), in their introduction to an edited collection of research on rural women in Mexico over the past century, also adopt this position, stressing men's continued primary control of agricultural tasks alongside the penetration of capital that acts to take advantage of cheap, surplus female labor. Thus, at least in the Mexican case, evidence suggests that changes in resource control, land, or income do not accompany the feminization of agriculture. The gap between women's labor participation and their resource access and control reflects, in part, a continued discursive construction of the farmer as male.

"HOUSEWIFIZATION" IN THE LATIN AMERICAN AGRICULTURAL FRONTIER

Calakmul stands apart from much of Mexico, as it is located in the middle of what until recently was Mexico's last remaining agricultural frontier. Thapa, Bilsborrow, and Murphy (1996) argue that frontier conditions differ from those in more densely settled areas in a fundamental way: land is plentiful and labor is scarce, and this reality plays an important role in the gendered division of agricultural labor. Women, as a reserve labor pool, increase their participation in agricultural field tasks, including in those tasks culturally identified as male, such as clearing land (Meertens 1993). Several scholars have examined the agricultural roles of women in Latin American frontier areas, with attention to how gendered roles differ from those in areas with longer histories of settlement (Meertens 1993; Townsend 1993, 1995; Thapa et al. 1996).

3. PROCEDE is a national program initiated in 1992, by which rights to ejidal land are certified for individuals and housing lots are individually titled.

In Colombia, Meertens (1993, 268) found that necessity led to a persisting “lack of rigidity in the daily patterns of the gender division of labor” and a broadening of the social norms for women’s participation in male agricultural tasks. Despite Meertens’s case finding, Townsend (1993), in her review of existing empirical work, argues that frontier conditions can lead to housewifization, with women becoming more limited to the domestic sphere. Townsend’s own research (1993, 1995) finds that migration often transforms women into housewives through loss of access to productive resources (including land) and income-earning opportunities, combined with increased workloads for reproductive tasks as a result of frontier conditions and lack of services. Key to my own argument is an understanding of housewifization as a discursive process as well as a material one. Understanding it in such terms allows for reconciliation of increasing one-sided flexibility in the gendered division of labor (e.g., women’s increased participation in “male” agricultural labor tasks, such as land clearing) with a simultaneous process of women’s confinement to housewife status along with a loss of independent access to and control over land and income. The Calakmul case I present here illustrates the simultaneity of these processes but also positions women as active agents engaging with and challenging housewifization.

GENDERED RURAL IDENTITIES AND RESOURCE CLAIMS

In the past decade, political ecologists have explored the role of identity mobilization in resource access and control claims in the Global South, especially around land rights (Neumann 1995; Pulido 1996; Perreault 2001) and project resources (Edmunds 1997; Sundberg 1998, 2004). Much of this work has focused on indigenous and/or environmental identities. Sundberg (1998), for example, examines how locally articulated environmental identities in rural farming communities around the Maya Biosphere Reserve in Guatemala both appropriate and challenge portrayals by nongovernmental organizations. Various scholars, such as Jackson, have advocated the analytical inclusion of identity in working to understand resource claims and struggles, as a means to consider more fully people’s agency (Jackson 1998; Jackson and Chattopadhyay 2000). Women’s agency in the creation of their identity (Butler 1990) as a component of livelihood strategies is central to the arguments of this article. Nelson (2004), in her research with Mexican women in Cherán and their agency in the creation of political identity in relation to processes of neoliberal economic globalization, highlights the intentional actions and negotiations of individual women. In Calakmul, I have sought to do the same and to highlight the interconnected nature of the discursive and the material in gendered livelihood struggles.

A focus on the discursive has emerged in research on farming in the Global North. Scholars such as Liepens (2000) have exposed the highly

gendered nature of farming identities, exploring how farming masculinities are constructed. Others have examined the continued invisibility of women as farmers as linked to discursive processes (Sachs 1983; Trauger 2004). Yet others have explored dominant constructions of being a man and a farmer, and how those constructions are intertwined with ideologies of human control of the environment and the male role in household provisioning (Peter et al. 2000; Little 2002), as well as the resultant anxieties for male farmers in increasingly difficult economic times (Ní Laoire 2005). Recent work considers how farming identities are challenged and potentially transformed as opposed to how they are constructed and reinforced. Trauger (2004, 304), in research in Pennsylvania, found that sustainable agriculture opens spaces for women to transgress the dominant gendered farming identities and be farmers. By exercising agency in becoming farmers, women become visible in farming. I explore a similar process in Mexico, bringing together research on farming in the rural North and South, and linking the discursive aspects of farming identities with material outcomes for women and their families.

THE CALAKMUL STUDY

During 2002, I lived with my family in Calakmul, Mexico, for a year. During that time, I carried out research in more than forty rural farming communities in the municipality and met with key staff members in various government agencies and nongovernmental organizations (NGOs) working in the region at intersections of agriculture, development, and conservation.⁴ My time, however, was most focused in three ejidos, which I selected as case study communities to represent a range of women's collective agricultural action in the region. The three ejidos (La Verdad, El Futuro, and Nueva Esperanza) vary in size (territory and population), access to municipal infrastructure, and dependence on agriculture (see table 1).⁵ All three were settled by migrants in search of land during the latter half of the twentieth century, and all have at least one established women's

4. In each community, I interviewed key informants to identify active women's CBOs and gain insight into their activities. I also documented the proportion of formal land rights held by women. I met with key staff in the Calakmul Biosphere Reserve offices, the Campeche State offices of the Secretariat of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales, or SEMARNAT), and the local offices of the National Indigenous Institute (Instituto Nacional Indigenista, or INI), the Federal Attorney for Agriculture (La Procuraduría Agraria), and the Secretariat of Agriculture, Livestock, Rural Development, Fisheries, and Food (Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación, or SAGARPA). I also met with key staff in the environmental NGOs Pronatura Península Yucatán, Bosque Modelo, and La Naturaleza Compartida.

5. I changed the names of the three ejidos to protect the confidentiality of the research participants.

Table 1 *Three Case-Study Ejidos*

	La Verdad	N. Esperanza	El Futuro
Date established ^a	1973	1980	1980
Territory size (ha) ^b	1,500	5,001	4,604
Total population ^c	264	585	379
Total number of households	46	135	79
Total number of ejidatarios (male + female) ^d	28	97	82
Total number of ejidatarias (female only)	2 (7%)	9 (9%)	12 (15%)
Households cultivating a parcel in 2002 ^e	73%	82%	94%
Population speaking an indigenous language ^e	10 (4%)	4 (1%)	10 (4%)
Number of established women's CBOs	1	3	1
Standard ejidal parcel size (ha)	20	40	50

^aBased on year ejidal land grant solicited (Klepeis 2000).

^bKlepeis 2000.

^c2000 Census data (Instituto Nacional de Estadística y Geografía 2001).

^dEjidatarios and ejidatarias are individuals holding official rights in the ejido, including the right to land.

^eEstimates based on sample data.

CBO. The women's agricultural CBOs vary in history and activity, but all were organized by women to gain access to land and conservation and development project income. In each community, one CBO is organized in the form of a *unidad agro-industrial de la mujer* (UAIM), the state-sanctioned vehicle for women's collective action in the ejidos.⁶ In the case of Nueva Esperanza, with two additional women's CBOs, groups of women have also mobilized as rural societies.⁷ These rural societies are another vehicle for rural collective action under Mexican law, one not restricted to women or to the ejidal system. Rural societies in Calakmul have predominately male memberships: in the forty-one communities I visited, I found only nine rural societies with either women-only or mixed-gender membership.

In the three case-study ejidos, I carried out two kinds of research, combining qualitative and quantitative methods. First, I selected a random

6. The UAIMs have been strongly critiqued as a relatively ineffectual vehicle for women's collective action in rural Mexico and for reflecting and enforcing dominant gender ideologies (Arizpe and Botey 1987; Stephen 1997; Radel 2005).

7. Two types of rural society exist under Mexican law: *sociedades de solidaridad social* (social solidarity societies) and *sociedades de producción rural* (rural production societies).



Figure 1 Women Drawing

sample of one hundred households.⁸ For each, I conducted an in-depth, semistructured interview with the primary woman of the household. The interviews lasted between one and three hours. Second, I accompanied the activities of the five different women's CBOs, attending their meetings; going to their fields with them; and engaging in conversation one-on-one, especially with the leaders. Here, I focus in particular on one of these five CBOs—a rural society in Nueva Esperanza.

I also engaged all the CBOs in several structured group activities that drew on participatory rural appraisal techniques.⁹ From my perspective and in relation to this article, one of the most interesting of the group activities was a drawing exercise (figure 1). I asked each woman to draw herself engaged in an activity that she saw as central to who she was as a

8. This sample was stratified by ejido and by the woman's participation in a women's agricultural CBO, to ensure adequate numbers in each ejido and a sufficient number of interviews with women members of the CBOs. Whenever I use the sample data to make generalizations about the ejido or across the three ejidos, I weight the sample elements appropriately to account for this sample stratification.

9. Before my academic career, I worked as a community development agent in Colombia, and I used participatory rural appraisal and participatory learning and action techniques in that role.

woman.¹⁰ This exercise merits some discussion here as a research method. My intention was to illuminate for myself and the women aspects of their gendered identities. It became clear during the exercise that the women shared their drawings with one another, laughing and drawing inspiration from one another. On reflection, I have decided that this sharing was altogether appropriate, as in fact, the identity processes in which I was most interested were the ones embedded in the group process itself—the collective reflection and construction of gendered identities in the context of the CBO and its goals. This led to a degree of uniformity of drawings specific to each group, but rather than detracting from the power of the exercise, I believe this outcome gives greater voice to the collectivity of the CBO. Thus, the drawings capture a common moment in the identities of the women—identities that we know to be multifaceted, shifting, and context specific.

WOMEN'S FIELD LABOR IN CALAKMUL

Not surprisingly, the household interviews illuminated a relatively clear gendered division of agricultural labor existing in the Calakmul ejidos. This division varies among the communities and from household to household, and simple depictions hide a complex and relatively flexible reality. Nonetheless, some generalizations are possible. The gendered division of labor in Calakmul is both idealized and actualized. As discussed earlier, sociocultural ideology identifies men as the farmers, with women as housewives and agricultural helpers (Brunt 1992; Zapata 1996). Women consistently self-identify as housewives, regardless of their degree of participation in farming activities. When I asked women during the interviews for their primary activity, for example, 71 percent responded solely in terms of the house or kitchen. Some noteworthy exceptions were the responses of women participating in the women's rural societies in Nueva Esperanza (not in the UAIM). Many of these women identified their primary activity as farming or as participation in the CBO.

Espinoza (1998), in discussing women throughout rural Mexico, argues that the phrase “*me dedico al hogar*” (I dedicate myself to the home) hides women's multiple labors, which mix productive and reproductive activities as well as commercial and subsistence-oriented activities in the same spaces and at the same times. In Calakmul, men are identified as in charge of the milpa and women as in charge of homes, house gardens, and fowl.

10. I directed the women as follows: “Haga un dibujo de sí misma haciendo una actividad o tarea, la cual define o hace un parte de definir quien es usted como mujer.” I then drew an example of myself, holding a clipboard and a toy truck, and explained I felt that balancing my work as a researcher with my work as a mother best defined who I am as a woman. I present and discuss the results of this exercise in full detail elsewhere (Radel, forthcoming).

The discursive construction of rural women as housewives obscures the combined productive and/or reproductive nature of labor in the home and the house garden directly surrounding it. It also obscures women's real participation in agricultural field labor itself. In Calakmul, the majority of women participate in field labor at one time or another in the annual cultivation cycle. Some of their participation is seasonal and tends to cluster around agricultural tasks with the highest labor demands—clearing and weeding, planting, and harvesting. Overall, women's highest rates of participation are in harvesting. In addition to harvesting on ejidatario parcels their own household controls, many women engage heavily in wage labor, harvesting chili on the parcels of their neighbors.¹¹ Agricultural field labor tends to vary over the life cycle of each woman, with older women and women with very young children decreasing their participation rates. Table 2 reports the quantified interview results, with findings separated for those women belonging to a women's agricultural CBO.

Overall, in Calakmul, the rate of women's participation in field labor is high. Of the one hundred women interviewed, 56 percent contributed field labor in some form to cultivation on land their household controls. Not all the one hundred households cultivate their own land, however. Some do not engage in farming activities at all, and others do so only through daily wage labor of individual members on land that other households control. For the households actually cultivating a household parcel in 2002 (including those doing so on borrowed land), 65 percent of the women reported contributing to field labor. Given that labor for agricultural production extends well beyond field labor, rates for agricultural labor more broadly conceived can be expected to be even higher. Women engage in various cultivation-related activities, such as processing crops for sale or storage. For example, chili cultivation requires considerable labor input, such as preparing and smoking the peppers for that portion of the harvest the household sells as chipotle (Keys 2002). And although I also collected information on gendered labor contributions to agricultural production through house gardens and animal husbandry, I do not report these findings here. It is important to note that the findings reported here also are restricted to whether or not a woman participates in a given agricultural field labor task. I did not measure the degree to which she participates in terms of time or in comparison to other household members, such as her husband, sons, or daughters. The nature of the study did not allow for that measurement, as I interviewed the women and did not observe them (as

11. Throughout this article, I refer to "household" land or parcels as a shortcut for private or subdivided ejidal land, with rights held in the name of an individual of the household, usually the man. This does not signify equality in access to or control over this household land for all household members; rather, it is to contrast this land with group or CBO land held collectively by a group of individuals from different households.

Table 2 Women Contributing to Agricultural Field Labor, by Space and Task

Agricultural Task	Women participating in a CBO	Women not participating in a CBO
	On own household parcel	
	<i>n</i> = 50	<i>n</i> = 35
Initial land clearing from forest	4%	4%
Burning of cleared vegetation	12%	4%
Clearing young secondary vegetation and weeding	39% ^a	33%
Planting	17%	10%
Fertilizer or pesticide applications	3%	2%
Collecting and transporting water for applications	20%	17%
Harvesting	75% ^b	45% ^b
Supervision of wage labor, including men	4%	0%
	On other households' parcels (agricultural wage labor)	
	<i>n</i> = 54	<i>n</i> = 45
Chile harvesting: interviewed woman	49%	41%
Chile harvesting: adult daughter in household	16%	8%
	On women's CBO parcel	
	<i>n</i> = 53	
Initial land clearing from forest	5%	
Burning of cleared vegetation	13%	
Clearing young secondary vegetation and weeding	55% ^a	
Planting	27%	
Fertilizer or pesticide applications	7%	
Collecting and transporting water for applications	15%	
Harvesting	66%	
Supervision of wage labor, including men	1%	

Note: Data is based on weighted sample of one hundred women in the three case-study ejidos. The total *n* is less than one hundred for household and women's CBO parcel data, as I excluded from the analysis those households without these parcel types.

^aFor women participating in a CBO, the labor contribution rate for clearing young secondary vegetation and weeding on household parcels and the rate on the CBO parcel are significantly different (*t*-statistic in paired samples test is significant at 0.10 level).

^bFor harvesting on household parcels, the labor contribution rate for women participating in a CBO and the rate for women not participating in a CBO are significantly different (Pearson chi-square statistic in cross-tabulation is significant at 0.01 level).

in a time allocation study, for example). The women found it difficult to estimate the labor days of their participation in each task, when I asked this question. I can say, however, that women's participation in a given task ranged considerably, from several hours to many days in the given agricultural season.

In 2002, the feminization of agriculture in the region was minor, which reflects the heavy participation of many women and men in the harvesting of the cash crop chili and the still relatively low levels of male out-migration at that time. As of 2002, the semisubsistence production of the milpa had not shifted to women, even as men in small numbers were shifting to cash wage labor both inside and outside of agriculture. This lack of shift reflects the ample availability of male agricultural day labor. Households with heavy involvement in nonagricultural wage labor or even salaried municipal positions were hiring local male labor for the milpa cultivation of their land, most likely as a risk management strategy. In 2002, few women were involved in the supervision of this primarily male wage labor. However, subsequent follow-up research in 2007 indicated that this number may be increasing, as more and more men are engaging in short-term labor migration to the United States (Radel, Schmook, and McCandless 2010). Despite a lack of feminization of agriculture by 2002, it is clear that agriculture in Calakmul (even when considering only field labor tasks), like elsewhere in Latin America and the world, involved both men and women, with women's labor crossing productive-reproductive and public-private domains.

WOMEN'S AGRICULTURAL CBOS AND LAND ACCESS AND CONTROL IN CALAKMUL

Land is the basis of livelihoods for the majority of households in Calakmul, through agricultural production, state cash transfers predicated on that production (e.g., Programa de Apoyo Directo al Campo, or PROCAMPO), and conservation projects predicated on land access.¹² In Calakmul, formal land rights, through the ejidos or through private tenure regimes, are primarily held by men. The vast majority of individuals holding formal land rights do so through the ejidal system. In this study's total ejidos, only 205 of 2,086 (10 percent) of the current ejidal rights holders are women (these women are known as *ejidatarias*).¹³ Even beyond formal rights, men dominate effective land access and control, as well as the income generated from or leveraged through land (Radel 2005). Often ejidal rights are placed in a woman's name for practical reasons relating to indi-

12. PROCAMPO is a federal program that was introduced in 1994 to assist farmers during the North American Free Trade Agreement transition. Although PROCAMPO was slated to end in 2008, the program remains in place to support rural agricultural producers.

13. The percentage ranges by ejido from 0 percent to as high as 34 percent, and it compares to a higher national rate estimated at 17.5 percent (Katz 1999).

vidual limits (the man can legally hold only one right) or other rule-based considerations (the man formally sold his rights and is not allowed to obtain new ones).¹⁴ An examination of decision making over land use, as one indicator of effective land control, suggests a more complex picture than do formal land rights. For individual ejidal parcels, sole land-use decision making is much lower than 10 percent for women, whereas shared control between men and women is much higher. Even shared control, however, is not likely to be shared equally. The women I interviewed who reported cases of shared control spoke in terms of their husbands “consulting” them.

Outside of the ejidal system, private land can be purchased, but few women have the means to do so individually.¹⁵ Land can also be borrowed from other family members or from neighbors, but this is an uncommon practice for women in Calakmul (I found only two cases in the one hundred interviews). The CBOs, however, represent an avenue open to most women for land access and control. Under the legal system governing ejidos in Mexico, each ejidal council was required to set aside a parcel of land for the collective use of women organized as a UAIM.¹⁶ The collective parcel was usually smaller than a parcel designated for a single ejidatario.¹⁷ In Calakmul, under the recommendation of the Procuraduría Agraria (the federal agrarian legal office), most UAIMs chose to divide the parcel into individual plots. It is not uncommon for the resultant plots to be as small as a quarter hectare. The majority of the plots have ended up uncultivated. Women reported to me that depleted soils and incursions by livestock limit the productivity of plots—both problems resulting from the legal requirement that UAIM parcels be located adjacent to ejidal settlements. Women attributed the depleted soils to a longer history of cultivation before designation as UAIM parcel, as cultivation expanded

14. Each ejidal assembly maintains an official list of ejidatarios. Names are added (with new inscriptions) or changed (with land transfers) with the approval of the assembly. This is the process by which rights to land are placed in a given person’s name.

15. In the one-hundred-household sample, only one woman living in the three ejidos owned land privately as an individual, independent of ejidal land rights, whereas ten men did. Of the forty-one communities in Calakmul I visited for the collection of basic data, thirty-eight were ejidos and three were private smallholder communities. In the private communities, 12 percent of the total smallholders were women.

16. This legal requirement was changed in 1992. As of the 1992 revisions, ejidal assemblies are encouraged to designate land for women’s collective activity only if the land is requested and with consideration of land availability (Reglamento de la Ley Agraria para Fomentar la Organización y Desarrollo de la Mujer Campesina, article 7).

17. The smallest UAIM parcel in this study was 12 hectares, and the largest was 203 hectares. Of the thirty-eight ejidos in my study, thirty-four were “parcelized,” with the land divided into parcels assigned to specific individual ejidatarios. The ejido-specific ratio of UAIM parcel size to assigned individual ejidatario parcel size gives us certain insight into the relative land tenure standing of the UAIM. In my study, this ratio ranged from 0.20 to 1.25 (not considering the two parcelized ejidos with no UAIM parcel at all and the four non-parcelized ejidos, two of which had no UAIM land use).

over time outward from the settlements. The legal framework thus requires that the ejidal assemblies allocate to the UAIMs land perceived as inferior. In many years and communities, women have cleared the plots simply to qualify for a modest PROCAMPO payment, without bothering to cultivate because of the low return on their labor.

Of the five women's agricultural CBOs in the study's three case-study ejidos, three were UAIMs (for basic characteristics of the five CBOs, see table 3). Local norms effectively dictate which women are allowed access to designated UAIM land, and it was some women's exclusion from access to this parcel that led to the organization of two women's rural societies in Nueva Esperanza by 2002. In this ejido, UAIM membership had been limited to wives and daughters of ejidatarios, excluding both ejidatarias and other *pobladoras* (women from households holding no ejidal land rights and also not daughters of ejidatarios). A group of women, led by an ejidataria ejected from the UAIM, formed the ejido's first women's rural society in 1997. The women subsequently named themselves the Society of Farming Women for Sustainable Development (Sociedad Mujeres Campesinas para el Desarrollo Sostenible). After several years working collectively on borrowed land through several different conservation and development projects (planting crops and trees, and raising sheep), the women pooled scant financial resources to purchase a ten-hectare parcel from a local ejidatario. Their ability to achieve this land purchase stemmed in large part from the relative successes of their earlier activities, which resulted in a confidence—both on their own part and on the part of their husbands—that they would be able to leverage the land into additional project resources.

This confidence has been well placed. Between 1997 and 2002, the society received almost continuous support through various programs of SEMARNAT, INI,¹⁸ SAGARPA, and the Secretariat of Social Development (Secretaría de Desarrollo Social, or SEDESOL), as well as from local NGOs such as Pronatura Península Yucatán, Bosque Modelo, and La Naturaleza Compartida. The inflow of funds and other resources to the society has bred considerable jealousy in Nueva Esperanza and has led to efforts by the ejidal assembly to manage or control those funds. As a result, CBO leaders have fought to maintain the independence of the society. Their ability to maintain a viable, independent group rested in part on their operation as a legally recognized society outside of the ejidal structure (unlike a UAIM) and partly on the personalities and abilities of the women themselves, particularly a core set of five women in the society who hold ejidal rights in Nueva Esperanza. As table 3 illustrates, no other women's CBO in my study had even a single ejidataria member. Although the women's control over the ejidal parcel held in their name varied widely,

18. In 2003, INI was replaced by the National Commission for the Development of Indigenous Peoples (Comisión Nacional para el Desarrollo de los Pueblos Indígenas, or CDI).

Table 3 *Women's Agricultural CBOs in Three Ejidos: Basic Characteristics*

	Members				Parcel size
	Wives of ejidatarios	Ejidatarias	Pobladoras	Total	
UAIM: La Verdad	16	0	3	19	20 ha ^b
UAIM: El Futuro	15	0	3	18	20 ha ^b
UAIM: Nueva Esperanza	33	0	11 ^a	44	20 ha ^b
Society of Farming Women (N. Esperanza)	9	5	14	28	10 ha ^c
Women of Calakmul's Beautiful Nueva Esperanza	2	0	18	20	10 ha ^d

^aAll daughters of ejidatarios.

^bUAIM-designated parcel, with oversight by the ejidal assembly.

^cPurchased by the CBO.

^dBorrowed by the CBO under a project-funds-sharing agreement with the ejidatario holding the rights to the land.

the experience as ejidataria women in a male-dominated ejidal system led to some degree of public political voice. For example, they were required to attend and vote at meetings of the ejidal assembly. The experience of being an ejidataria also arguably facilitated a process by which the women developed greater confidence operating in male-dominated spaces.¹⁹

In 2002, the society had twenty-eight active members, twenty of whom collectively cultivated the ten-hectare parcel.²⁰ On the parcel, the women have cultivated various crops, including chili and maize. A subset of the group also runs an earthworm composting project. By 2002, the group had established a reputation among funders as a reliable recipient of project monies. The history of the society stands in particular contrast to the lack of success of the UAIM in the same ejido. Although the members of this UAIM have secured occasional project monies since their formation in 1980, the funds have been few, and the women themselves view the UAIM as failing to achieve its goals. In 2000, another group of women in

19. Elsewhere, I have explored comprehensively various characteristics of women and their households to compare those who participate in a women's CBO to those who do not (Radel 2005).

20. Eight members in 2002 participated in projects on their own or their husbands' parcels but did not join in the collective farming of the group parcel.

Table 4 Women's Participation in Land Control through Land-Use Decision Making: Who Decides What to Plant and How Much?

	Man	Woman	Both	CBO leader or members
On women's CBO parcel				
Woman belongs to a UAIM	14 (42%)	9 (27%)	9 (27%)	1 (3%)
Woman belongs to a rural society	0 (0%)	0 (0%)	0 (0%)	20 (100%)
On household's parcel				
Woman belongs to a UAIM	27 (84%)	1 (3%)	4 (13%)	
Woman belongs to a rural society	17 (85%)	3 (15%)	0 (0%)	
Woman belongs to no group	30 (79%)	0 (0%)	8 (21%)	

Note: Sample sizes are less than one hundred because not all households have each type of land.

the ejido founded a second rural society (Women of Calakmul's Beautiful Nueva Esperanza²¹), attempting to replicate the record of the first society.

The women belonging to the two rural societies in Nueva Esperanza differ from women belonging to the UAIMs, or to no group, in an important aspect of land control—decision making over the use of the land. The members of the societies decide what they will plant on their group land. Table 4 presents data from the hundred-household interviews on who decides what crop to plant (and how much) on (1) the household parcel and (2) the CBO parcel or small plot (if subdivided) if the woman belongs to a women's agricultural CBO. Note that women in the rural societies are no more likely than other women to participate in the decision of what to plant on the household parcel. Although we might expect these women to be more fully integrated into productive decision making on the primary household parcel, instead we see their emerging public roles as farmers restricted to the CBO land (except for three women, all of whom were ejidatarias). The women themselves gave no indication that they desired increased involvement in decision making for the household parcel. The considerable time and energy the women committed to the CBO parcel may explain a lack of voiced interest in further farming responsibility on the household parcels.

The women members of Nueva Esperanza's rural societies also reported control (see table 5)—either as a group or shared with their husbands—over any income from group land, much of which derives directly from conservation and development projects (as of 2002, little cash income resulted from sale of agricultural products). The UAIM women in the same

21. I altered the name of the rural society to reflect the changed ejido name (see note 7).

Table 5 *Women's Participation in CBO Income Control: Who Decides How Group-Derived Income Is Spent?*

	UAIM (La Verdad)	UAIM (Nueva Esperanza)	UAIM (El Futuro)	Society of Farming Women	Women of Calakmul's Beautiful N. Esperanza
Man decides	25%	0%	15%	0%	0%
Woman decides	33%	82%	46%	0%	0%
Both decide	42%	18%	39%	38%	100%
CBO collectively decides/reinvests	0%	0%	0%	63%	0%

ejido also reported controlling UAIM-source income, either solely or with their husbands, but that income amounted to almost nothing (in 2002, it was only annual PROCAMPO benefits of 250 pesos per woman—roughly US\$25). In contrast, women members of the two UAIMs in El Futuro and La Verdad reported higher rates of decision making solely by men. This was especially the case for the La Verdad UAIM, in which a quarter of the women interviewed reported their husbands as the decision maker for any UAIM-source income.

WOMEN BECOMING FARMERS: THE SOCIETY OF FARMING WOMEN

In my discussions with members of the Society of Farming Women, several themes emerged regarding the question of women as farmers. First, many (but not all) of the women consider themselves farmers. They do not hesitate to call on male family members' labor or to hire male labor for tasks which they consider "heavy" (*pesado*)—in particular, for the operation of a rotary cultivator purchased with project funds. Yet they carry out most of the field labor themselves. Second, this consideration of themselves as farmers did not come easily. Many members have strong memories of the long and tiring task of clearing larger tree stumps out of the group's parcel and of doubting their ability to complete the task. Other members recounted the earliest years of their collective farming activities and how neighbors derided their efforts and abilities as they set out on foot together to work the parcel. Third, the women see their legitimacy as farmers and landowners as intimately linked to their participation in conservation and development projects. It is becoming farmers and having access to land that has given them reliable access to project resources, but it is also their participation in projects and material project resources—and the external technocratic legitimacy accompanying this participation—which has legitimized them slowly (and grudgingly) as farmers and landowners in their own ejido. Not surprisingly, conflict in

the community, especially over the control of project monies, has accompanied the process of building legitimacy.

The broader process of becoming farmers merits further exploration. The president of the Society of Farming Women commented the following to me on her motivations for forming the group:

We wanted to achieve collective work as well as project supports, because when there was no group, supports were coming into the ejido—credits or programs—and the ejidatarios said no . . . [to] taking women into account, not one woman. The project supports coming into the community are for men[,] . . . although we women need to work.

Despite women's labor in cultivation, ejidal norms assign project-based benefits for farming to men only. Simply put, women are not the farmers, and the project resources are for farmers. This puts women in a bind: because of the increasingly difficult economic environment for smallholder agricultural production in Mexico, women recognize that access to land is insufficient for farming (Stephen 1996). To achieve production and income gains, land must be combined with involvement in projects that provide credits and funds for operating costs.

The gendered notion of who is a farmer is linked to ideas of land control, including the decision-making control over the use of land and over income derived from land, but it is also linked to the agricultural division of labor. The initial clearing of fields from forest is a particularly male task (along with the application of chemical inputs and the supervision of wage laborers), and it is also the task most central to the initiation of cultivation in an agricultural frontier. The ideology of gendered farming labor is starkly visible in who is or is not hired as day laborers by households in the ejido. Apart from harvesting chili, women find it difficult to be hired by their neighbors because of a pervasive identification of key farming tasks as male tasks. One woman spoke to me of her five years of providing alone for her children after her husband abandoned her. She tried to find work as a day laborer, earning wages for working in the fields of her neighbors: "A man won't speak to you, for things like weeding or clearing the chili fields, things we can do too, because he thinks we don't have this capacity. You have to be a man, because it is a man who advances, what can a woman do?—but we *can* do what a man can do." The members of the Society of Farming Women engage in agricultural tasks traditionally considered male, and they do so in a public way. Their very visible presence in the ejido, especially as they travel together through the settlement to their parcel, upsets the status quo of male farmers and their helper wives. And when the group enlists men for labor, the men are the helpers.

As a group, the women actively engage in the construction of an identity for themselves as farmers—their choice of group name speaks to this. Even their choice of group seal for use on legal paperwork—a woman

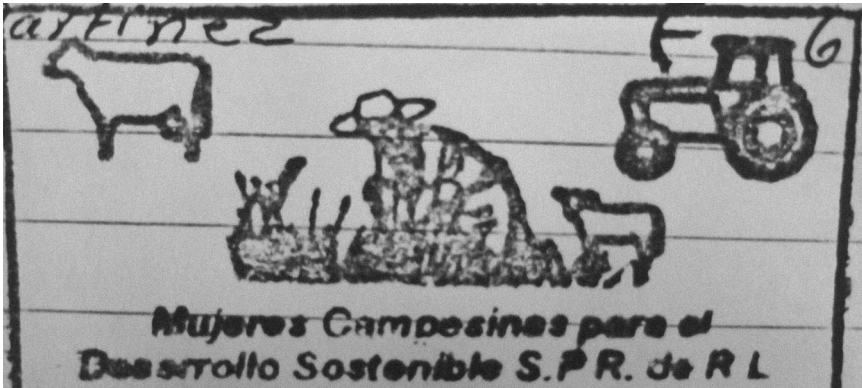


Figure 2 Group Seal of the Society of Farming Women for Sustainable Development



Figure 3 Example Drawing of Woman as Housewife

working in the fields accompanied by a tractor and a cow—is illuminating (figure 2). This was clearly reflected back to me in the outcomes of the drawing exercise I asked the women to complete. At my request, the women in the various CBOs with which I worked drew pictures of themselves engaged in an activity that they felt defined who they were as a woman.

Overwhelmingly, the resultant drawings were of women engaged in the typically female-defined labor tasks of food preparation, child care, cleaning, and the feeding of fowl in the house garden (e.g., figure 3). Few women drew themselves engaged in agricultural field labor, but the majority of those who did were members of the Society of Farming Women. These women, specifically in the context of the group, drew themselves as farmers (e.g., figure 4), not as housewives. Of the sixty-seven drawings



Figure 4 Example Drawing of Woman as Farmer

I collected from the five women's CBOs in the three case-study ejidos, twenty-one depicted women engaged in field labor on the parcel (either the CBO or the household parcel). For three of the CBOs, these types of drawings were few, but for two CBOs, including the Society of Farming Women in Nueva Esperanza, these drawings dominated. For the Society of Farming Women, in eleven of nineteen drawings the woman depicted herself as a farmer: with field labor defining who she is as a woman. It is important to note that, on the basis of the hundred-household interview data, 65 percent of women with households cultivating land do engage in field labor. The choice of what to draw reflects not so much what the woman does in an average workday; the choice of what to draw reflects a decision (at that particular time and place, with me and in the group) of how to define herself, how to represent herself.

CONCLUSIONS

Not many CBOs like the Society of Farming Women had formed in Calakmul by 2002, although several others did exist in the forty-one communities in my study. Most women's CBOs in the region are organized as UAIMs, as encouraged by agents of the Mexican state. And the UAIM as an instrument for women's collective organization as farmers is constrained by its institutional position in the ejido, with activities subject to ejidal assembly approval (Radel 2005). This institutional position of the UAIM in a male-dominated ejidal system limits the UAIM's ability to foster transgressive sociocultural identities for women. The activities of the women in the few groups (usually rural societies) like the Society of Farming Women, outside of the ejidal system and the control of the ejidal assemblies, represent a nascent transformation of agricultural gender relations in Calakmul, thereby challenging ideas of male land control and male land-use decision making and defining women as farmers.

Previous research has argued that men's increasing participation in wage labor can act to increase women's workloads, with women taking on responsibility for agricultural labor tasks that their male partners formerly carried out. One might therefore expect a degree of resistance on the part of women to the assumption of new identities with additional labor expectations and responsibilities. Women might resist becoming farmers while still also being housewives. Yet identity is best understood as multiple and context specific: the women of the society did not shift from being housewives to being farmers; nor did they simply become both housewives and farmers, with the labor expectations of both roles. The society members claim their identities as farmers in the specific context of the CBO in relation to access and/or control over land and over conservation and development project benefits flowing into the ejido from the outside.

By representing themselves as farmers in the CBO context, and not as housewives or agricultural helpers, the women consolidate their control over land and over cash and material goods. The women identify these resources as important to their own well-being and that of their households, and thus the transformative representation strategies are part of women's gendered livelihood strategies. Yet the women do more than simply represent themselves as farmers—they do so in specific ways that are recognizable to both outsiders and other community members. In particular, they own land independent of men and of the UAIM structure (as UAIM land is easily dismissed as nonvaluable women's land) and make decisions over the use of that land. Furthermore, they engage collectively in traditionally male field-labor tasks. A process of identity reinforcement occurs between the women and the program staff of state agencies and NGOs: the women represent themselves as farmers (with rights to land and project resources). In turn, the program staff treat them as farmers, which reinforces the women's own sense of themselves as farmers. The mutual construction of these particular women as farmers challenges the dominant discursive construction of farmers as men. Despite the previous efforts of researchers to make visible women's roles in farming, especially in Latin America, in the end, it may require the transformation of gendered farming identities and the disruption of long-entrenched discursive constructions before women finally become truly visible as farmers.

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