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Increasing women's agency through non-traditional employment opportunities in the transport sector:

The effects of women's participation in road maintenance in Bolivia

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CON-TENT

Foreword

PROVIAL, the routine road maintenance program that uses microenterprises in Bolivia has generated multiple impacts, such as reducing the costs the government pays for this service. At the same time, this program has resulted in positive economic and social developments in the communities where it has been implemented. One of the least analyzed impacts of the program has been how women have been empowered to exercise their citizenship and agency through their participation in the microenterprises involved. In Bolivia, it is estimated that 15% of those who work for road maintenance microenterprises are women. Therefore, this study's objective is to better understand the effect of women's participation in road maintenance microenterprises and to do so by examining how they have been empowered and given agency. The study also looked at whether this has translated into greater participation in decision-making and leadership within the women's communities. It also analyzes the effect that a road maintenance program that uses microenterprises has on the empowerment of women who participate in microenterprises. It demonstrates that the inclusion of women in non-traditional jobs not only provides them with a source of income, but also promotes greater skills, leadership and empowerment.

A country's road network represents a vital means of economic development and facilitates integration within the territory and enables the population to access social services, income-generating activities, and labor markets. Investment in the road network usually represents a high cost for governments and once work is completed, ongoing maintenance is necessary to preserve this transport asset in good condition. Two decades ago, transportation management agencies had the goal of reducing the costs associated with routine maintenance of the road network and promoted developing maintenance programs through the use of microenterprises. One of the effects of this maintenance policy has been the development of microenterprise members' skills by allowing them to learn about how businesses are organized, resource management, the planning of work activities. In another context—in the absence of such a program—they would not have been able to participate in developing these skills. These microenterprises are usually made up of 8 to 12 individuals who live near the roads they maintain and who are hired by the national road agencies to maintain the roads near their communities.

In Bolivia, the structure and organization of the routine road maintenance program that works with microenterprises has facilitated women's participation because: (i) the microenterprises and the selection of members is made in a participatory manner, i.e., the people of the community themselves decide who has the greatest need to work and can be part of the microenterprise; (ii) the work involved requires weekly maintenance goals (ditch cleaning, cutting, and clearing) for the assigned section of road, but provides flexible schedules that allow for the time to complete other personal activities as well, such as home and childcare; (iii) the work place is close to workers' homes; and (iv) it is a safe environment, given that the community itself has chosen who will work for the microenterprises and, therefore, its members are residents of the community and know each other. In addition to Bolivia, other countries such as Colombia, Peru and Vietnam have pioneered incorporating women into road maintenance microenterprises. For example, in Peru, more than 600 routine road maintenance microenterprises have existed, and women make up 29.5% of their total members.

One of the few studies available highlights the important role that microenterprises play in Peru in giving voice, agency and decision-making capacity to their members in even a more generalized way. According to the study, one of the effects of the existence of routine road maintenance microenterprises within the Peruvian Rural Roads Program is that a large number of leading members later attained public management positions and became important figures in their local communities. For example, they participated in budgeting and planning for the roads in their communities. Although the existent literature shows that participating in routine road maintenance microenterprises impacts its members' ability to exercise citizenship and participate in public life, it does not specifically analyze gender and the impact that it has on the community and the empowerment of women.

In this sense, the present study contributes to understanding the positive effect of routine road maintenance programs that use microenterprises. It collected information about the participation of women in road maintenance microenterprises in Bolivia. It also assesses how these women are empowered in public life and how they exercise their rights and citizenship as well as how they do so in their private life at home with their family.

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Executive Summary

This research analyzes the effects on women who participated in the Bolivian Road Conservation Program utilizing Microenterprises (PROVIAL). The PROVIAL program is a road maintenance program that hires Road Maintenance Microenterprises (abbreviated as MCV in Spanish) to perform routine maintenance work throughout Bolivia´s national road network. While regular wages invariably increase household income, *a priori*, it was unclear if participation in MCVs would have other effects on women, specifically on their ability to exercise agency. To assess the changes experienced by women MCV members (in Spanish, these women are known as *socias*) resulting from their participation in the PROVIAL program, both quantitative and qualitative data were collected. As a general disclaimer, impact evaluation analysis was not the methodology used. Therefore, results are inferred as the effects on women's agency as impacted by their participation in the PROVIAL program.

Adding to the existing evidence, this report finds that including women in microenterprises, as part of a road maintenance program, has a positive effect on women's agency. Agency, an important albeit hard-to-operationalize concept, is defined as "an individual's (or group's) ability to make effective choices and to transform those choices into desired actions and outcomes" (World Bank 2011). The analysis is focused on the various dimensions of women's agency, including changes in household decision-making, economic well-being, self-esteem, self-perception, and social and political participation. The main findings are summarized in Box 1.

The road maintenance program in Bolivia inadvertently created a virtuous circle for the women hired to work for MCVs. All governments face the same challenges when it comes to adequately providing road asset management. However, a road maintenance policy that includes hiring microenterprises to perform routine maintenance invertedly provides consistent income to rural women who otherwise would have not been able to secure a contract-based monthly salary. Consistent take-home pay and training at work lead to higher self-esteem and confidence, which, over the long run, may translate into increased social representation, and new and sometimes better work opportunities. The socias also experienced a boost to their agency, both through the income earned as well as the skills training, they received. In addition, their participation shifted perceptions within their communities. This could turn out to be a first step toward overcoming gender stereotypes as they pertain to women who work in the traditionally male-dominated transport sector.

The implementation of Bolivia's MCV program produced a win-win situation for both the government and the socias. On the one hand, the government increased access to paying jobs in rural and sometimes isolated areas, while it also maximized resource allocation through efficient contract pricing. At the same time, the income of vulnerable rural households increased. Workers did not only received the financial resources because of their gender or income status, but rather because of the work they performed. This contributed to noticeable changes in women's attitudes and to gender roles being reconsidered in general as well. The socias gained new purpose in life and expanded their role in society.

Integrating gender considerations into the design of public works programs can have a high pay-off. Given its low implementation cost, integrating gender considerations is low-hanging fruit, and an outgrowth of an existing road maintenance policy that could be actively harnessed. Women's participation in MCVs is not a magic bullet, and other labor market policies are needed as well, but it has proven to be one way to facilitate women's entry into formal jobs found within the infrastructure sector.

Box 1: Summary of Main Findings

#1: Higher household income translates into increased economic empowerment for rural women who belong to road maintenance microenterprises.

#2: Socias remain the main responsible caretaker for their households. However, there appears to be a shift of responsibilities towards men for activities that are less time-sensitive.

#3: Household asset ownership remains largely unchanged.

#4: Socias have greater household decision-making power.

#5: Socias have greater say about their reproductive and sexual health compared to non-socias.

#6: Socias' self-esteem and social interaction noticeably increases.

#7: Self-esteem increases for socias in leadership roles.

#8: Stereotypes and lack of time prevent socias from actively participating in political and social organizations.

#9: Rigid social norms can negatively impact the lives of women who become members of an MCV.

1 Introduction

A well-maintained road network enables growth and prosperity. It provides access to jobs, markets, and essential services like education and health. Ensuring that this transport lifeline is open all year long and accessible to the entire population is an important governmental task. Unfortunately, as countries expand agricultural frontiers and increase road coverage to vastly unserved areas, road maintenance, especially in mountainous and rural areas, tends to compete with other sectors and this leads to underinvestment, as well as necessary road work being deferred. To prevent roads from deteriorating and increase road safety, routine maintenance is critical. The literature and the international experience show that routine and preventive road maintenance is key to reducing infrastructure expenditures in the long run (see Donnges, Edmonds and Johannessen 2007; World Bank 2005). Over the last decades, several countries have contracted routine road maintenance and non-structural repairs to so-called microenterprises, usually comprised of 8 to 12 members who live in the communities near the roads. Countries in Latin America and the Caribbean pioneered this method, but in recent years, several countries in other developing regions have followed suit.

Rural road maintenance performed by microenterprises has many advantages. First, it is a comparatively low-cost intervention. It primarily requires low-skilled workers who live close to the area where the work needs to be performed. While the central road agency must provide a certain degree of skills training and supervision, this approach vastly reduces the costs of relocating road workers and equipment, as well as the overhead costs from large construction firms. Furthermore, costs are driven down through the use of the performance-based contracts that usually form the basis of the relationships between the microenterprises and the government. Payments are made against verifiable performance indicators which normally include kilometers of road, cleaning culverts and shoulders, and maintaining all signage. In turn, lower overall road maintenance costs ensure that road conditions and drainage systems receive routine maintenance, avoiding premature deterioration over time.

Additionally, by putting nearby communities in charge of routine road maintenance, local ownership and accountability can be fostered. Those living in the communities know who is responsible for maintaining the roads in good condition and can exert social pressure if the quality of maintenance declines. Similarly, the microentrepreneurs know they are working toward a common public good that will benefit their immediate social networks and communities.

Finally, the microenterprises offer steady take-home pay and improve local livelihoods—providing income not otherwise available, as well as work opportunities for rural men and women. For most members of this population, this is their first formal job contract. Job opportunities are scarce, especially for women in rural areas. Due to their remote location, many find themselves excluded from the labor market.

The potential for integrating women into transport projects is recognized internationally. While traditionally, the transport industry overall has been regarded as "no-place-for-women" (Turnbull 2013), this situation is shifting, albeit slowly. In Latin America and the Caribbean, women represent less than 15% of the transport infrastructure sector's total employees (Granada et al., 2019). In the past few decades, many countries have moved beyond the notion of women as mere users of infrastructure and now consider them to be an integral part of their sector strategy. Increasingly, women are involved at all stages of infrastructure development. In fact, "gender mainstreaming in the transport sector means identifying and addressing gaps in gender equality that will impact sector policies as well as the design, planning, and provision of its infrastructure and services" (World Bank 2010a). International experience shows that women's participation in road maintenance microenterprises has positive effects. Countries as diverse as Peru, Vietnam, and Nicaragua have successfully incorporated women into routine road maintenance (World Bank 2008, World Bank 2014, and World Bank 2015, respectively).

For women, working in routine road maintenance can be transformative. A World Bank study compared the effects of rural transport projects in Argentina, Nicaragua, and Peru on women's agency. Program design varies slightly from country to country, but the main findings hold true for all three countries. First, women's agency was enhanced by their increased incomes and control over these incomes. Second, women's participation in road work and income-generating activities in rural areas led to reports of increased self-esteem and self-efficacy, better decision-making capacity, and more leadership and assertiveness. Third, the projects helped women expand their networks, allowing them better access to peers, social support, and information (World Bank 2015).

Communities also benefit from greater participation by women in road work. In Honduras, women's income from work in microenterprises helped them pay for their children's school expenses (World Bank 2010b). In Peru, a Rural Roads Program financed jointly by the IDB and the World Bank created an estimated 6,000 unskilled jobs and gave women the opportunity to advance into leadership positions. Twenty-four percent of the members of rural roads committees and 45 percent of the rural road committee treasurers were women. Both men and women's perceptions of women's value to the household and community improved significantly (World Bank 2010b). The same project in Peru also increased women's civic engagement and participation in democratic processes (Remy 2008).

Taking all of the above into consideration, the overarching objective of our research is to contribute evidence of the positive impact participation in road maintenance microenterprises has on women. While regular salaries invariably increase household income, before this study, it was unclear if participation in microenterprises would have other effects on female members, specifically on their agency. The analysis using both quantitative and qualitative data to explore changes in the socias' level of economic, physical, and decision-making autonomy and compares it to that of women who are not socias (referred to in this report as *non-socias*). Moreover, this study also seeks to provide additional evidence and information about the benefits of including women in road maintenance programs in Latin America and the Caribbean. Very few analyses on the effects of these types of interventions have been conducted in these areas or elsewhere (see World Bank 2015) and our research aims to contribute to this body of evidence. Furthermore, while road maintenance programs have expanded throughout the region, very few of them were conceived through a gender lens. Therefore, this paper provides recommendations for specific actions that transport agencies can undertake to include a gender lens for greater impact on promoting female labor participation in what is traditionally a male-dominated sector.

This study finds that actively including women in microenterprises, as part of a routine road maintenance program, has a positive effect on women's agency and reduces gender gaps. Participating in a microenterprise has provided many women with an entry ticket into the labor market and offered not only an opportunity to earn a steady income but also to learn new skills. It is widely recognized that economically empowering women leads to tangible benefits for society as a whole. On the one hand, their active participation in the labor market increases economic growth as well as their bargaining power and decision-making leverage within their household (Turnbull 2013). Not having access to economic opportunities limits women's agency and their ability to take advantage of existing opportunities more fully (Lundvall et al., 2015). The experience in Bolivia, presented here, is a case in point. Formal employment opportunities for women in rural areas are limited. Instead, women engage mostly in the informal sector where unfavorable work conditions exist. According to World Development Indicators, 77.4% of women who work in the non-agricultural sector in Bolivia are informally employed[1]. Our study provides evidence that the PROVIAL helped include women in the formal labor market and unlock their potential by providing opportunities for both them and their families.

The remainder of this report is structured as follows: the first section provides background information on PROVIAL, managed by the Bolivian Road Agency (*Administradora Boliviana de Carreteras* - ABC). The second section covers the methodology and data sources used for this study. The third section delves into the core of the study and analyzes the effects women's participation in MCVs has on their agency. The fourth section explores possible explanations for the findings and the fifth section discusses findings and makes policy recommendations. The sixth section concludes the report.

[1]The latest data available is from 2018. For Bolivian men, informal employment is as widespread as it is for women: 73.4% of total non-agricultural employment.

2 Background of the Road Conservation Program Utilizing Microenterprises (PROVIAL)

The ABC is the bolivian government institution in charge of building and maintaining the country's primary road network. The agency manages the PROVIAL program that outsources routine road maintenance to microenterprises known as MCVs. Bolivia first started contracting to MCVs in 2001 when a pilot program was implemented in Guaqui (La Paz) with financial support from the *Banco de Desarrollo de América Latina - Corporación Andina de Fomento* (CAF). Six years later, the legal foundation for microenterprises was established when the National Assembly passed a law allowing microenterprises to be hired directly, without using a traditional procurement process. Routine road maintenance tasks include vegetation control such as removing brushwood; providing emergency response; cleaning roads, shoulders, and culverts; monitoring roads; recording accidents; and cleaning drainage systems. In 2015, about 500 microenterprises operated under the auspices of PROVIAL, covering almost 12,000 kilometers of the nation's primary road network.

Between 2001 and 2016, the program employed 3,259 people in 484 MCVs and created approximately 12,500 jobs in communities located along the roads. Women made up 15.6% of all MCVs, or 507 out of 3,259 members. Each MCV oversees the maintenance of an assigned section of road for a period of two years. After that time, all MCV members leave their positions and are replaced by new members of the community. This ensures that more people within the community have a chance to participate and benefit from the program. The monthly salary that each member received was 1,460 Bolivianos which, when the study was conducted, was equal to the national minimum wage[2]. One of the main pillars of the PROVIAL program is that skills training is provided to MCV members. The training covers a wide range of topics from technical and administrative matters to accounting, leadership, and safety issues[3]. For details on the recruitment process and how work is organized, please refer to Appendix 1.

[2] The monthly national minimum wage at the beginning of 2020 was US$304.

[3] Skills training is the same for women and men and does not include a gender perspective. The intensity, quality, sequencing, and content of training varies by MCV.

3 Methodology and Data

As previously mentioned, the purpose of our study was to understand the effects on women's participation as members of road maintenance microenterprises. We specifically wanted to determine if women's participation in MCVs leads to greater agency on their part. Agency, an important albeit hard-to-operationalize concept, is defined as "an individual's (or group's) ability to make effective choices and to transform those choices into desired actions and outcomes" (World Bank, 2011). The analysis, therefore, is focused on the various dimensions of women's agency. It covers changes in household decision-making, economic well-being, self-esteem and self-perception, as well as social and political participation. Quantitative and qualitative data were collected to assess related potential impacts.

Our approach provides a robust assessment of the underlying pathways to change. Changes in attitudes and social norms are exceedingly difficult to capture using only quantitative data, making qualitative data quite valuable. Information was gathered through individual and group questionnaires[4]. Individual and group questionnaires measured the socias' self-reported levels of economic, physical, and decision-making autonomy and compared it with the self-reported data from women who were not members of an MCV—non-socias, as well as male MCV members, or *socios*. While PROVIAL is a nationwide program, three departments in Bolivia—La Paz, Cochabamba, and Santa Cruz—were selected based on their level of accessibility and characteristics[5]. In these three departments, a total of 75 socias, 32 non-socias (see Box 2)[6], and 64 socios were interviewed for the quantitative part of the study. In total, 26 different MCVs are represented in the sample. All combined, these 26 MCVs have 178 members, yielding a reasonably sized sample[7]. This sample includes three all-female MCVs and three that are all male. In 15

[4] Survey questionnaires are available from the authors upon request.

[5] The departments of La Paz, Cochabamba, and Santa Cruz correspond to the three regions of the country, Altiplano, Valle, and Llano, respectively, ensuring appropriate geographic representation. The sample was stratified by department in two stages. The first stage selected road sections and the second stage selected a set number of women and men from within the road sections.

[6] A brief comparison of the basic characteristics of socias and non-socias can be found in Box 2. A breakdown by region is shown in Appendix 3.

[7] The sample was determined based on the total number of socios and socias (1,817) in the three departments selected for the study (La Paz, Cochabamba, and Santa Cruz) to ensure a representative sample size.

Box 2: Comparison of socias and non-socias

	Socias	Non-socias
Sample size	75	32
Average age	34.8	37.2
Education	33% more than primary school 9.3% no formal education	46.9% more than primary school 6.3% no formal education
Spanish as first language	66%	81.8%
Other languages	20% Quechua 12% Aymara	20% Quechua
Marital status	25% single 66% married or in relationship	25% single 66% married or in relationship
Number of children	2.8	2.3
Number of household members	4.6	4.3

of the 26 MCVs, at least half of the members are women. On average, across the three departments, 53%[8] of MCV members are women.

Focus groups and in-depth interviews were used to collect qualitative data. In total, 23 group interviews with socias were conducted (the socias interviewed were the same as the ones surveyed)[9]. The discussions with and among the socias provide the foundations for the findings presented in the next section. Excerpts from these interviews are quoted throughout the report to highlight certain findings. In addition, 13 in-depth interviews were conducted with socias who served as MCV representatives. Finally, PROVIAL management and supervisors provided insights through interviews.

As with any research, this study encountered certain limitations. The data provide a one-time snapshot of the situation and are based on self-reported information. Moreover, in general, group interviews follow certain dynamics that have the potential to introduce biases and/or slightly distort findings. Since the study seeks to shed light on women's agency and gender roles, it covers sensitive topics such as roles within the household, gender roles, relationships, etc. Therefore, there may have been a reluctance to share truthful insights with the group for fear of judgment. For example, participants may not wish to admit having a submissive position within a relationship or confess to not having input into how family income is spent.

While the information generated through interviews is subjective, it is nonetheless exceedingly useful in disclosing perceptions and revealing belief systems. As a valuable side product, the group discussions allowed the women to reflect on the changes they underwent and to exchange perceptions with their peers. Interviewees were surprised by many of the questions, showing that they had not previously consciously thought about the topics raised in the interviews. Similarly, quantitative data may not be entirely accurate since certain information may not have been recalled correctly or may have been reported incorrectly. The same difficulties apply with regards to the sensitivity of the topic.

[8] Appendix 2 shows the distribution of the interviews by gender, department, and MCV. In addition, Appendix 4 features a map with geographic distribution of the MCVs.

[9] Regional distribution of the group interviews was as follows: 11 in La Paz, 3 in Cochabamba, and 9 in La Paz. The number of socias taking part in group interviews varied according to the number of women in each MCV.

4 The Effects of Participating in MCVs on Women's Agency

Women's empowerment and agency are complex concepts encompassing many different domains. The **following nine findings** summarize the principal changes we noted in the women who participated in MCVs, specifically with regard to economic empowerment, household decision-making, reproductive self-determination, self-esteem, self-perception, social representation, and political participation.

Finding #1: Higher household income translates into increased socia economic empowerment.

Monthly household income differs between socias and non-socias. Almost 60% of non-socias reported that they earned 2,000 Bolivianos (about US$288) or less per month. Among the socias, only 40% fell within that income category. The majority of socias live in households with more than 2,000 Bolivianos at their disposal each month. In fact, 28% of them have access to more than 3,500 Bolivianos compared to only 18% of non-socias (see Figure 1). This difference in income suggests that the socias are able to dependably contribute to the households' earnings and therefore accumulate greater influence within their households.

Take-home pay from the MCV is many women's main source of income. For 69% of the women, take-home pay constitutes at least half of the household's entire income, and for 32% of them, it represents their only household income. Almost unanimously, the socias said that working for MCVs allowed them to improve their economic situation. They describe their situation prior to joining an MCV as difficult and characterized by economic hardship.

About a third of the socias had never been employed in a remunerated job before they joined the MCV, and those who did often had very unstable jobs. Given the very few job opportunities in rural Bolivia, almost 35% of the women had not worked in a remunerated job before joining the MCV (Figure 2, Panel A). The few women who had been employed in a remunerated job prior to joining the MCV had predominantly worked as domestic workers or in retail, which usually involved very unstable income, was informal in nature, and provided less time for other activities, particularly household chores (Figure 2, Panel B).

Figure 1: Monthly Total Household Income Among Socias and Non-Socias (in Bolivianos)

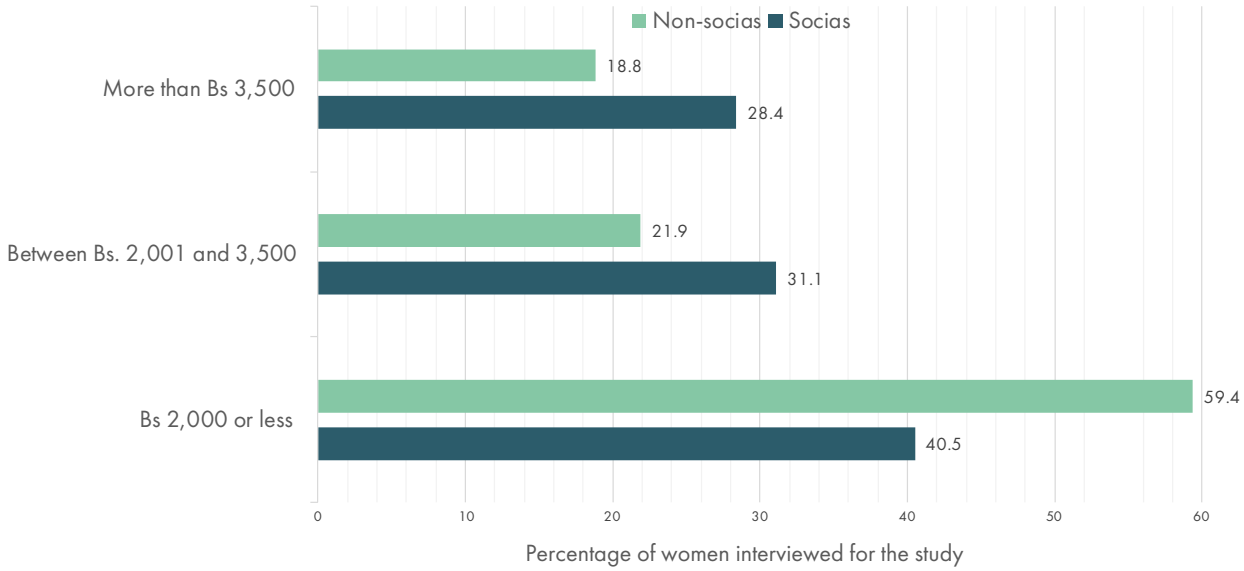
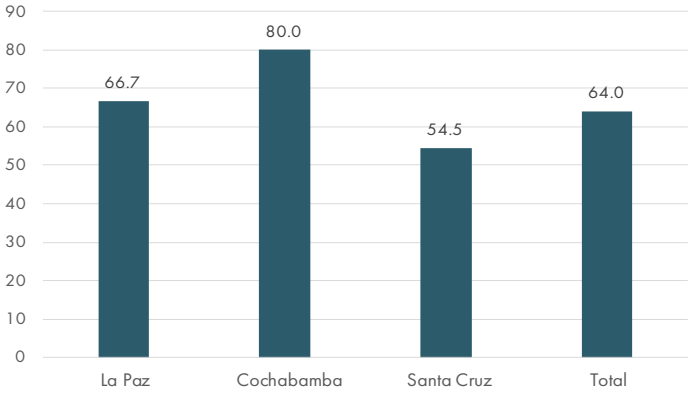
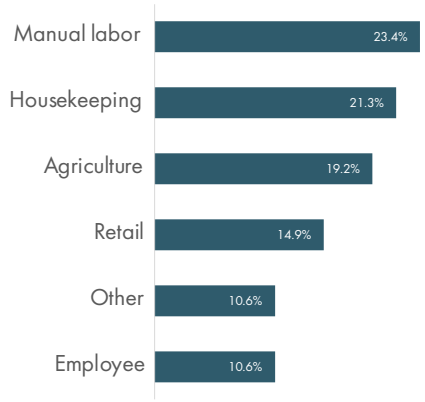


Figure 2: Pre-MCV Employment of Socias

Panel A: Percentage of socias who worked before joining the MCV



Panel B: Previous activities of socias who worked before joining the MCV



Socias express high levels of satisfaction with MCV jobs. While we do not have information on socias' job satisfaction with their previous jobs, there is reason to believe that the quality of their employment improved. Eighty-five percent of the socias were either satisfied or very satisfied with their job in the microenterprise. To a large extent, this is due to the job security attached to being employed in an MCV. At the same time, jobs in MCVs seemed to provide some women who had previously worked several smaller jobs and/or spent a lot of time looking for work with more free time.

> "*Before we did not work, now we have a secure job. Our salary arrives, although it is not much, but it meets some of our needs.*
>
> *I worked for days, on days it rained I did not earn...with a fixed salary, even though it rains, I am sure that I will have that money.*"

Income generation has an empowering effect. Socias take tremendous pride in bringing home a salary and managing their income. In some cases, part of the income they earned as a member of an MCV was invested in another income-generating activity, causing a multiplier effect. The focus groups reveal that socias contribute to a household's well-being by investing most of their income in their children. In the interviews, many said the salary they earned in MCVs as socias helped them to improve their children's nutrition and paid for educational costs such as school fees, educational materials, or transport costs. Socias also stated they were able to cover other expenses including transport to work, home improvement, rent, water, and electricity bills. It appears that self-earned income gave the socias more economic autonomy and helped to close rural income gaps. Just as importantly, this income resulted in increased pride and self-esteem due to the ability of the socias to contribute financially to their households.

Finding #2: Socias remain responsible for care and household chores even if employed by an MCV. However, there appears to be a shift in responsibility to other family members for activities that are less flexible that must be carried out during specific times.

When it comes to household responsibilities, the data show that most care and household work falls upon the women, whether or not they work for an MCV (see Figure 3). Forty-eight percent of socias and 62.5% of non-socias say that they are mainly responsible for providing childcare. Three out of four women in both groups are responsible for cooking and cleaning. Another 19% of the socias and a quarter of the non-socias also provide care for the elderly. In addition, about 60% of women in both groups do the grocery shopping for their families. There is some evidence that socias are slowly transferring less flexible household responsibilities to other family members because those activities need to be carried out while they are at work, such as childcare and grocery shopping. In fact, some data suggest that the socias' partners take on more responsibilities than the partners of the non-socias. For example, 8% of the socias state that their partner is mainly in charge of the children, whereas the respective figure among non-socias is nil.

Another interesting finding is that the daughters of socias are much more likely to be involved in household chores than the daughters of non-socias. For example, 12% of socias report that their daughters are mainly responsible for cooking, 9.3% of socias say that their daughters are responsible for household cleaning and 5.3% state that their daughters are their siblings' primary caretakers. The non-socias, on the other hand, do not report assigning the main responsibility for such activities to their daughters. The new role that the socias' daughters take on demonstrates some of the negative effects of increased participation by these women in the labor force when not accompanied by changes in gender roles within their households, communities or services and policies that help reduce women's unpaid work (such as care centers).

Figure 3. Percentage of Women Responsible for Household Chores

In general, it appears that the socias remain the primary caretakers at home with minimal substitution of responsibility by their husbands or daughters. Women take on most of the unpaid responsibilities related to childcare and the care of others. The disproportionate distribution of household chores has implications for women's ability to join and remain in the labor market (Box 3).

Box 3: Gender-intensified barriers

Lack of opportunity and lack of time were identified as the main barriers to female economic participation. While men are undoubtedly also affected by these constraints, it is worth highlighting that some barriers can be gender-intensified, i.e. affecting both sexes but more severely impacting women. For instance, inadequate childcare provisions, working long hours, and isolated workplaces create problems for both men and women. However, since women bear the primary responsibility for childcare and other household activities, they tend to be more negatively affected by such circumstances. As long as women remain responsible for unpaid work at home, they will be more severely impacted by lack of opportunity and time, in Bolivia and elsewhere. Removing barriers, such as introducing work schedules that are compatible with family commitments and offering childcare for non-school age children, will positively effect women's economic participation and—given the multiplier effects of women's increased participation in paid labor—on a country's economic development as a whole.

Finding #3: Asset ownership remains unchanged.

Results are mixed as to how participation in MCVs affects asset ownership. Land ownership is low among all women surveyed: 12% of the socias and 10.7% of the non-socias own land, individually or jointly. There are, however, striking regional differences. For both socias and non-socias, higher levels of land ownership are concentrated in La Paz where one in every four women owns land. Conversely, women who reside in Cochabamba and Santa Cruz are much less likely to own land (see Appendix 5 for a breakdown). Home ownership, however, is more common. The percentages of women who own their place of residence are similar for socias and non-socias (27 and 24.1%, respectively). In addition, regionally, this figure varies greatly (Figure 4). Land and home ownership require significant capital. Given the relatively small salary that socias receive for their work for MCVs, it was unlikely that it would produce any tangible effect in asset ownership in the short- or medium-term. Finally, socios—males who work for MCVs—are more likely to own land (20.3%) and less likely to own their homes (only 25%) compared to socias.

Finding #4: Socias have greater household decision-making capacity.

Comparing the household decision-making capacity of socias and non-socias, it becomes quite clear that socias have more leverage in the decision-making processes that affect their everyday lives. Perhaps not surprisingly, 77% of them say that they are the ones who decide if they can work, compared to only half of the non-socias. It is possible that this finding is the result of self-selection into microenterprise employment. Of all the dimensions covered, including decisions affecting household expenditures and decisions about the children, the proportion of socias who can make such decisions is at least 15 percentage points greater than that for non-socias (Figure 5). Non-socias more often report that their partners make these types of decisions (see Appendix 6 for a breakdown). About 30% in both groups say that such decisions are made jointly with their partners. The qualitative interviews corroborate that, in most households, both husbands and wives share decision-making related to expensive purchases, however, both the quantitative and qualitative data show that, in most cases, it is the men who decide where a family lives.

Figure 4: Percentage of Land and Home Ownership among Socias, Non-Socias and Socios (individually or with partner)

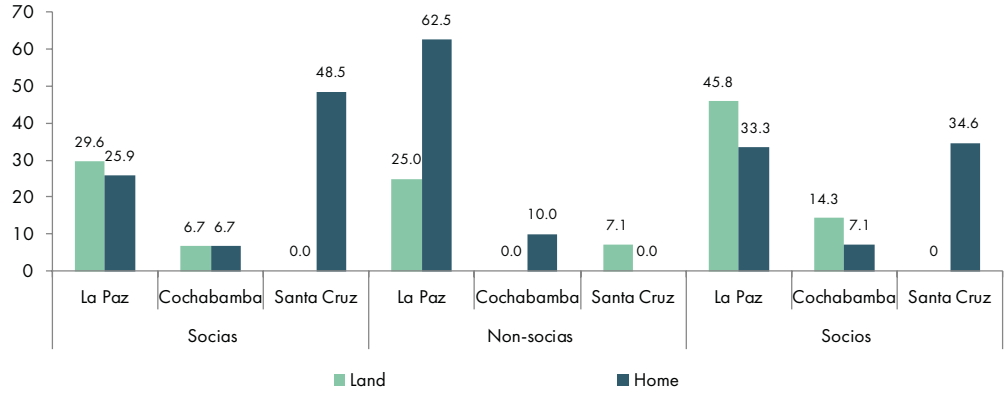
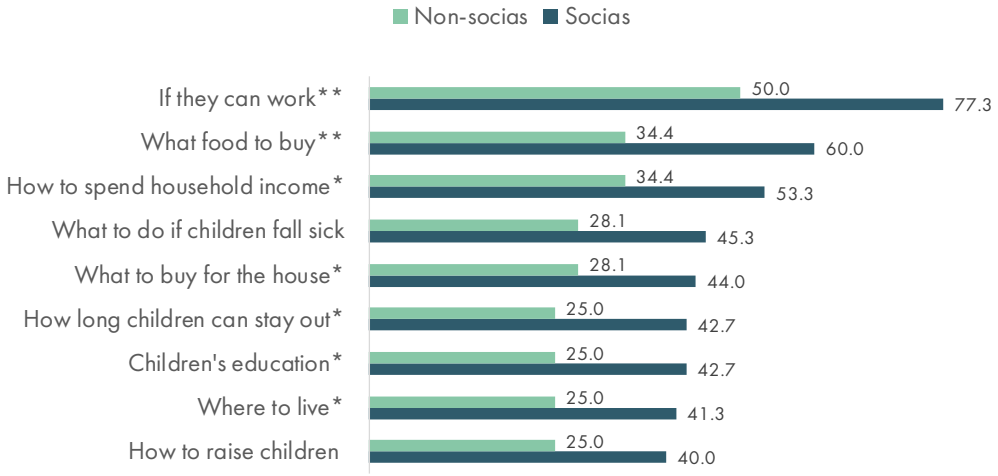


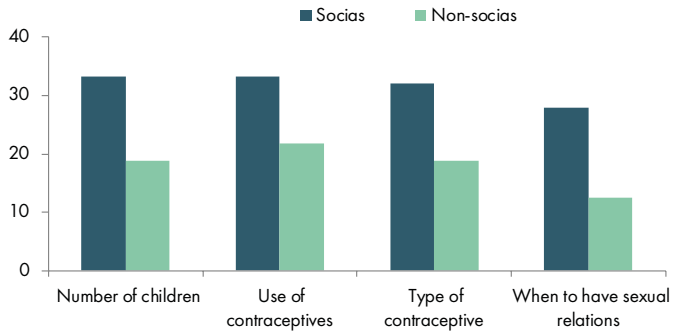
Figure 5: Percentage of Women Making Household Decisions



Finding #5: Socias have a greater say over their reproductive and sexual health compared to non-socias, however, these differences are not statistically significant.

Regarding reproductive and sexual health, the study finds noticeable differences between socias and non-socias. While 33% of socias say that they are able to decide how many children to have, only 19% of non-socias make the same claim (Figure 6). Similarly, a larger percentage of socias determines whether to use contraceptives and what kind to use. Finally, 28% of socias decide when to have sexual relations, whereas among non-socias it is only 13%. Again, it is important to refrain from interpreting any causal relationship from these figures since the differences are not statistically significant. The qualitative interviews delve deeper into the issue of access to contraceptives. Most women say that they do not have any issues accessing contraceptives. That may be owed in part to the fact that they abstain from sexual relations on fertile days.

Figure 6: Percentage of Women Who Can Make Decisions Related to Reproductive and Sexual Health



Finding #6: Socias' self-esteem and social interaction noticeably increases.

The interviews underlined the fact that most rural women are simple and frugal, without far-reaching aspirations and have low levels of agency. From the interviews, they appear to feel powerless. Most of them find it presumptuous to even consider joining a political organization or demand more say in society. Many things seem unimaginable to them and they appear to vastly underestimate their abilities.

> *If you were to accept a political position, how do you think your husband would react?*
>
> *I don't know, I can't even begin to imagine, I don't know what he would say to me, I have not thought about it.*
>
> *I learned many things that I did not know I could do and if I could do it.*
>
> *Before I was less outgoing, now at least I speak, there is a change in everything, in attitude, in everything.*

Many PROVIAL supervisors remember that new socias were shy and reserved during their initial meetings, but soon, they began to notice significant changes in the women's behavior. The women became more vocal, did not avoid speaking in public, and addressed issues that needed to be resolved. Comparing self-esteem before and after working for MCVs reveals remarkable positive change (this includes both self-assessment and assessment by supervisors). The MCV women not only reported increases in self-esteem, but the way they described themselves and their situation also shows the tremendous impact that their participation in MCVs has had on their self-perception. The women feel more confident to express their own opinions.

> *From our work in the microenterprise, we feel more secure, we have more ideas to share, we give our opinions, we have more knowledge and experience.*
>
> *I feel good and safe because I have something secure to support my children.*
>
> *Also [with this work], we do the community a service and that is why we feel satisfied.*
>
> *We have higher self-esteem, capable of making our own decisions and giving our point of view.*
>
> *That we are capable of doing the same job as men.*

Finding #6 is intrinsically linked to Finding #1: The ability to earn their own income sets in motion a remarkable process of self-development. Being able to support their families is a huge source of pride for the socias. Once they realize that they can perform their job for the MCV, they are inspired to dare to take on other activities as well. They see their participation in the MCV as proof that they can also excel in other areas. In this way, the MCV serves as a steppingstone to participation in the labor market and boosts the MCV women's confidence, in both economic and social terms. Specifically, they find themselves in new situations, facing new challenges. As they live through these experiences, they acquire self-awareness and gain self-confidence.

> *I have seen that I can work, that I can get ahead.*
>
> *We give our opinion in our homes, we are more independent.*
>
> *We have learned to get along with colleagues, to solve our problems.*
>
> *If I have been able to work here, now wherever I am, I can defend myself. I can value myself as a woman, I can make them not discriminate against me.*
>
> *There you see their [the socias] development, even speaking, the first time I went in, they were a little quieter, now they tell you, we need this, this has happened, and they are more active, they know what to say, they are all more open [Supervisor].*

As the quotes above show, there is evidence that employment in an MCV has helped the women become more independent and more assertive. Thanks to their work in an MCV, they have gained conflict-resolution and problem-solving skills. Since these are soft skills, it is hard to quantify the exact magnitude of their impact and the effect they have on the women's lives, but the interviews make it quite clear that the women have noticed a change in themselves.

Finding #7: Self-esteem is accentuated for socias in leadership roles.

A legal representative is chosen to oversee each MCV. While there is no official rule on how this representative is chosen, they are usually selected through a vote and awarded to those who have the most experience in, and knowledge of, an MCV. Some groups also take seniority into account or use a system of rotation. In any case, group members jointly choose who is going to represent them. Forty-one percent of socias hold a leadership role in a microenterprise and, of these, 17% are the MCV's legal representative, the highest leadership role in the organization (see Box 4). Serving as MCV representatives has triggered changes in women's attitudes and behaviors and perhaps even more so than for their peers also participating in microenterprises. The women take pride in their leadership positions and grow as individuals.

> *How do you feel about being an MCV representative?*
>
> *Being a representative, one changes in different ways, more open, before I was shy, but being a representative one develops more.*
>
> *I feel very happy and proud because it is something that I had never imagined that I could do and at first I felt helpless from not having the knowledge, but I got to know it and I liked it and now I feel more practical and it is easier.*
>
> *As a legal representative at least, I have learned to speak more, to develop more, to know new words, those things that I did not know I have learned, also to get ahead, at least know the people I have never met, now I am more.*

Finding #8: Lack of time and negative stereotypes prevent socias from joining political and social organizations.

The *socias* said that the most significant obstacle to higher participation in political and social organizations is constraints on their time. This outcome was not unexpected due to the fact that, when they join an MCV, they add an extra eight hours of remunerated work to their daily non-remunerated workload.

Box 4: In-depth Interviews with Socias who Represent their MCV

To acquire a better understanding of the socias' specific experiences in leadership roles, a special questionnaire was developed to capture their insights. Thirteen female legal representatives were interviewed for this part of the study. The most interesting finding was that the women representatives unanimously said that they liked representing their MCV. When asked about the level of support they received from their families, 12 of the women said they received an adequate degree of support. Furthermore, most also did not face resistance from their MCV colleagues when elected. Only two women said that there were male MCV members who did not positively view them assuming leadership roles.

A mixed picture emerged of the difficulties involved in being an MCV representative. Out of the 13 socias interviewed, four said that they could not recall encountering any difficulties, while another five said that the role comes with significant responsibility. Asked whether they think that assuming the role of MCV representative had given them more experience in participating in their community, six socias responded in the affirmative. Overall, eight women said their opinion is very respected in their community, another three said they are more or less respected, and only one said that she has no voice in her community. The most common reason given for not participating in their communities was lack of confidence, cited by five women. Two said that men do not listen to them and two said that it is not common for women to actively participate. This demonstrates that, even among female MCV representatives, that there is still progress to be made, not only in overcoming their insecurities and engaging actively in their communities, but also in changing stereotypes and biases among males in their communities.

Furthermore, there is also a lack of interest in politics: 10 of the women said they are neither a member of, nor interested in, joining a political party. Only three of the women stated that they participate in political meetings. Again, lack of confidence (mentioned by six of the women interviewed), prevailing gender norms (two) and lack of time (three) were noted as the principal reasons for not participating in politics.

> *You have to separate two things, the work that ABC does is purely physical work (...) and there is no time to engage in leadership, you have to comply with the workday. [Supervisor].*
>
> *Some women do not participate because they have few economic resources and have to work all day because in order to dedicate themselves to these types of activities and organizations, they have to dedicate time and a few days off.*

When asked to explain their reluctance to join political organizations, some women revealed that discriminatory comments and practices are still a common occurrence.

> *When women participate in political spaces, how do men react?*
>
> *Men always discriminate against women whenever they are like this.*
>
> *There is discrimination too, to avoid that we don't want to get involved.*

In addition to overt discrimination, there are other visible barriers to increased political participation. The women feel excluded in subtle ways. While the law mandates equal opportunity and representation, women often find themselves exposed to negative stereotypes when they choose to join political organizations. Their capacity to lead is questioned and they are accused of neglecting their families and household chores.

> *What difficulties do women have to overcome to participate in community meetings?*
>
> *They are shy, they are ashamed and lack knowledge. If I give my opinion in a meeting, people are listening at that time and then they talk about you, they make fun of it or sometimes they get upset about what one thinks is wrong, especially the men, the leaders, there is still machismo.*
>
> *How do men behave when you participate in political spaces?*
>
> *Some good and others bad because they continue to have that mentality that those positions belong to authorities and men, but they also have to get used to the idea that women are also being strengthened to hold political and public positions in our country.*

The prevalence of negative stereotypes in political organizations seems to lead, in turn, to internalized stigma. It can be the small details that prevent women from actively engaging in political roles. A perceived lack of knowledge and the absence of a "can-do" attitude often prevent women from becoming involved in political roles. The quotes below underline how, for many socias, political meetings or gatherings are outside of their interests and comfort zones. In addition, they simply do not consider their participation in political processes to be an option.

> *What do you think is the biggest barrier for more women to participate in decision-making positions in your community?*
>
> *I think it is a lack of knowledge and belief in oneself, having confidence in one's capacity*
>
> *Yes, I would like to participate [in political meetings] but it takes time, intelligence, knowing how to speak, and money to move forward.*

In summary, socias are held back by a lack of time, but also because they underestimate their abilities. Those determined to participate could perhaps make time for political involvement. From the interviews, however, it was apparent that most feel they simply do not have the necessary knowledge or abilities. It remains to be seen if the MCV programs may have planted the seed for increased social and/or political participation in the future, as the women become bolder and more self-assured. Additional time may be required to translate these gains into tangible effects related to community participation.

Finding #9: Rigid social norms can negatively impact the lives of women who are MCV members.

Joining an MCV results in an increase in responsibilities without there being a corresponding decrease in household responsibilities. Therefore, socias, in essence, work a double-shift. Women in MCVs continue to be perceived by their families and communities as primary caretakers and continue to be responsible for their households. As mentioned previously, gender roles in the socias' families have changed very little. They address increased demands on their time by rising earlier or staying up later. This can be a great sacrifice, but the women say the benefit to their family is worth it.

There is also evidence that the "crowding-out" of female household responsibilities occurs—that the workload of other females also living in the household (older daughters, elderly women) may increase in response to a socia having joined an MCV. However, these are still primarily the socia's responsibilities.

The shift in gender roles can be anxiety-inducing for both genders; they are entering unexplored territory. Men's feelings of uselessness and/or helplessness are especially problematic since the benefits of their spouses working are not necessarily apparent from the start. Naturally, different men cope with such situations differently, but there have been concerning reports of an increase in domestic violence in some households when income is earned by women (World Bank, 2015).

5 Causes and Channels for Women's Increased Empowerment and Agency

What explains the findings in the previous section? The qualitative data paint a very coherent picture as many women tell the same story. While they are subject to prevailing social norms and expected to fulfill certain gender roles, their economic situations force them to overstep these traditional boundaries and accept a job that normally would not be considered appropriate for women. Because of their gender, they are *a priori* considered unfit for the job. However, women who join an MCV create a demonstration effect by showing themselves and their social environment that they can succeed as socias and perform on par with their male peers. This in turn sets in motion a transformative process, where both internal and external perceptions shift to valuing women's new economic and social roles.

Prevailing social norms can prevent women from joining MCVs because they dictate what constitutes appropriate male and female occupations. The women, as with any other social group, are embedded within a specific social context. Ideas of masculinities and femininities are shaped very early in life and permeate all areas of society, including the transport sector. Prejudices about what women can do, and what men can do, abound. The prevailing views point to a clear division of labor and well-defined gender roles that have little overlap.

> *The work we do right now, before we did not do it as women, work with a machete, at first we did not want to because it was for men ... but now we do it of course ...*
>
> *Do you think that, at home, women receive support in their work?*
>
> *No, definitely not.*
>
> *Why do you think that is?*
>
> *Because the home needs attention and a man, let's say, a woman can do double the work, but the man cannot do double the work, and neglect the home, a man will not take care of his home as a woman cares for it.*
>
> *I know couples who have separated on this issue, not specifically talking about women in the microenterprise, but about women who work. [Supervisor].*
>
> *Some do not like the idea because one is a woman, they say that they should be in the house, dedicated to housework and not to outside things.*

Prevailing gender norms help to explain why female and not male household members take over household chores.

> *My oldest daughter helps me, she has to learn the things of the house, I talk to her, I say you have to help me, you are the little woman of the house I tell her.*

Men are also negatively impacted by the prevailing social norms. Traditionally, men are expected to be the family's primary breadwinner. Their abilities to provide for their families are called into question when their spouses have to work. Men, like women, are subject to certain expectations and limited in their choices when social norms define very strict gender roles. The information gathered in the group interviews clearly highlights that gender norms affect both genders.

> *... later a neighbor also had approached my husband [saying] that you cannot support, how are you going to let your wife go to work like that among several men and in that [kind of] job.*

The decision to join the MCV—and challenge the traditional division of labor—is based on economic considerations. For the majority of the socias, it was a matter of income. Unsurprisingly, at the beginning, the women noticed significant resistance from their male partners and family members, but as they kept working, these initial concerns slowly started to diminish. This was mainly due to the realization that a (second) source of income benefits the entire family. The socias' family members grudgingly adapt their conception of what is acceptable for a woman to do because of the increased income.

> *At first, my husband did not agree because my children are small and I left them to go to work, but since it is another income for my family, now he accepts it.*
>
> *If the man usually works and manages the money and maintains the home, the woman should administer that and control her home, no, it would be normal, the usual, but when the resource is lacking, both have to work, both have to assume that responsibility.*
>
> *I don't have my family, I'm alone, I have to support my children.*

Employment in an MCV can help overcome gender stereotypes in the community. The socias do the same work as the male members of the MCV except when, infrequently, they do not have enough physical strength for the task at hand. Working side by side and as a team, both men and women realize that the preconceived notion of women as weak and out of place in physically demanding jobs is simply untrue. Both the socias and their communities see what is possible and that social norms are not necessarily binding. For the women, it means that they question the internalized image they have of themselves.

Participation in an MCV increases socias' visibility within their communities. MCV members become well known in their communities because they spend time on the road and performing additional community work. The socias contribute to the greater public good, another source of pride.

> *"They see us being braver, helping our husbands and families, that way they will get ahead.*
>
> *We participate in community meetings and many times they ask us to do work for them in the community, for example, to clear the plaza, field, health center.*
>
> *As road maintenance workers we feel as if we are part of ABC, well regarded, taking care of the road, demonstrating our work for the State."*

The training component of the PROVIAL program has contributed to the socias' self-confidence. While the main objective of capacity building is to provide workers with the adequate technical skills to perform their jobs properly, the socias also build human capital and gain life skills in the process. The women and men learn to take on responsibility for a task, manage work plans, make financial decisions, and speak in public. Apart from increasing their employability in general, some of these skills are also transferable to these women's day-to-day lives. About half of the female representatives interviewed for this study found the trainings to be useful in their everyday lives, identifying spillover into other realms.

> *"It helps us to be able to function in other places, we have more security to do our things.*
>
> *Apart from being useful in MCV work, are the trainings useful in other aspects?*
>
> *– We use it with our neighbors, they ask us for advice, at least we already know something, and we also train our children.*
>
> *It is useful at home because we teach our children about the environment, signage. As we learn how to manage resources, we apply this in our homes."*

Working for MCVs provides a space for knowledge sharing, access to information, and the exchange of ideas. For many women, this is their first opportunity to work outside the home and allows contact with community members other than their families. The skills training offered to MCV socias and socios, have helped the women build friendships, expand their networks, be exposed to new ideas, access information, and share concerns with other people outside their homes—particularly other women. Forging new relationships is a central element of the training sessions as it not only improves the women's performance in the group setting that is the MCV, but also helps them develop their self-esteem. It is impossible to underestimate the power of the group dynamic in this context. The training and bringing several MCVs together help create a sense of unity beyond community borders. The majority of the women highlighted that they experienced a previously unknown level of solidarity and forged strong bonds with other group members. Finally, some women noted that participating in the training sessions opened up a new world for them, in that they were able to learn new vocabulary and go places they would not otherwise have gone.

> *"We go to the training sessions and we meet other people who give us ideas, we analyze ...*
>
> *I was always at home, I feel better here, we share, we talk, there is someone to talk to.*
>
> *I feel more capable, happy to be able to help our community [and] other people who ask us for some collaboration."*

6 Discussion and Policy Recommendations

Road maintenance policies related to routine maintenance created a virtuous circle for the women hired to work in MCVs. Increased financial resources and knowledge have led to higher self-esteem and confidence. Over the long-term, this may translate into increased social representation and new work opportunities. Changes to the perceptions of what constitutes male and female work roles take time to fully materialize since these views are part of deeply embedded social preconceptions and norms. It is, therefore, not surprising that some social stigma regarding "abandoning children" and "being a bad wife" remain. The women's participation in MCVs did not solve all gender issues.

PROVIAL, the Bolivian road maintenance program, has the potential to help progressively close gender gaps and change social perceptions if the program addresses gender perspectives. This section provides program recommendations for promoting participation by women and reducing gender gaps.

Provide childcare options for working mothers. The two predominant barriers to female participation in MCVs, and the labor market in general, appear to be a lack of opportunity and a lack of time. With few exceptions, women continue to be the main caretakers for their households, notwithstanding their employment in an MCV. Since participation in an MCV is especially difficult for women with young children, childcare options for working women need to be expanded[10] or MCVs need to allow flexible work hours for members, male or female, who are responsible for children. Depending on the number of children within a given group, the MCV may consider setting up a rotating childcare system. One parent could be responsible for all of MCV members' children and excused from MCV-specific work for the day, while still receiving pay. As a public agency, ABC could also consider collaborating with municipalities to provide better access to public childcare services. The need for workable childcare arrangements will increase as more women join MCVs. In some cases, the MCV program could also consider allocating one full-time member to childcare activities.

[10] Although there is empirical evidence that shows that "the lack of a public offer of care services for their young children significantly reduces [women's] income, the quality-of-care services is essential, particularly when it comes to services for children of vulnerable households. This is because, in the case of these minors, care services can meet the needs of food, stimulation, good hygienic conditions, and affection, which may not be met at home. Specifically, participation in high-quality programs either has clear positive impacts on development or is associated with better health and socio-emotional and cognitive development in the short term" (see Araujo and-López Boo 2015). Considering this, PROVIAL needs to take the quality of such a service into account if a childcare program is put into place.

Box 5: Recommendations at a Glance

- Provide childcare options for working mothers
- Promote the adoption of gender policies
- Explicitly target women in recruitment efforts
- Consider introducing affirmative action for women to be in MCV leadership positions
- Tailor training to specific local needs and consider gender-differentiated training
- Ensure timely monthly payments to avoid cash flow constrains for MCV members
- Consider extending MCV contracts

Tailor skills development to local needs and consider gender-specific skills training. Training offered by ABC represents a unique learning opportunity for the socias and socios who rarely have access to skill development opportunities. ABC could consider expanding the type of training offered to socios and socias for them to gain skills in heavy equipment operation and road safety, for example. This would provide opportunities for professional growth and the chance to access better-paying jobs[11]. Moreover, considering the fact that MCVs positions are only offered for a period of two years due to the required community rotation, more specialized training offered by the MCVs will help "retired" socios and socias find new jobs more easily. During the interviews, socias expressed interest in gender-specific skills training on a wide range of topics, including sexual and reproductive health.

Contracts adapted to the needs of both women and men. ABC should consider extending contracts beyond the current two-year duration to provide longer-term employment options. This would increase the socias' ability to plan for the future. Having a secure source of income can provide stability and increase women's well-being and agency, as this report has shown. Timely payment of salaries should be a priority, to avoid cash flow problems for MCV members.

Gender-specific policies adopted by PROVIAL could improve recruitment processes and women's representation in leadership positions. It is important to bear in mind that the women this study reports on are a minority. Women continue to be vastly underrepresented in Bolivia's routine road maintenance program. Several actions can be taken by ABC to increase female participation. First, recruitment efforts in local communities should include a gender strategy that encourages women to join the microenterprises by directly targeting them. Informational activities such as posting ads about the program in places that women frequently visit (schools, markets, etc.) or presenting the program at women's organizations (such as the *Bartolinas*[12]) could increase recruitment of women. Another idea would be to showcase women already participating in the program to help fight gender stereotypes and ideas about traditional roles. Women could also become PROVIAL ambassadors and spread information about the program's effects and benefits. For example, having a female recruiter talking about her experience as a socia at an initial community meeting about the program could inspire interest from other women. PROVIAL could also set a gender quota for new MCVs to ensure a more balanced gender composition and reinforce efforts to include women in MCV leadership positions. For example, rotating leadership positions within the MCV could help promote more equality between socias and socios and could lead to higher female participation. Following the example of other countries like Peru and Paraguay, ABC could also change its guidelines to include gender-specific policies in road maintenance programs.

While the opportunities provided by MCVs represent an important step in the right direction, much still needs to be done to advance women's agency and empowerment in Bolivia. It is imperative for ABC as well as the transport sector as a whole to explore additional options to increase employment opportunities for women and encourage their professional growth in transport services and within the labor market infrastructure.

[11] A study has shown that most men do not receive formal training in the construction industry, but rather informal and practical on-the-job training from their peers (Barnabas, Anbarasu and Clifford 2009). Because of gender biases and discrimination, women cannot access such informal training.

[12] The Bartolinas are organizations for campesino, indigenous, and native women in Bolivia. They are the primary union organizations for peasant women in the country.

7 Conclusion

The implementation of ABC's road maintenance program in Bolivia has had unintended effects on the women participating in the program. Socias have experienced a boost to their agency, both through the income earned and the skills training provided. MCV participation has shifted perceptions within their communities, and this could turn out to be a first step toward overcoming gender stereotypes. The implementation of a road maintenance policy in Bolivia has produced a win-win situation: (1) routine road maintenance is key for adequate road asset management, (2) work opportunities are generated, and the household income of poor rural households has been increased, and (3) there have been noticeable changes in women's attitudes and gender roles have been reconsidered. On average, the socias have gained a new purpose in life and expanded their roles in their communities, acquiring new skills and discovering income-generating activities that provide additional income that otherwise would have not been possible. Moreover, gaining new soft and hard skills could open new economic opportunities after their time in the MCVs is complete. A follow-up study is recommended to assess the program's medium- and long-term effects.

In Bolivia, women struggle to combine their income-generating and reproductive roles. Gender stereotypes are deeply rooted in Bolivia. Families, institutions, and societies are structured around preconceived roles. Rigid gender roles are restrictive and harmful and take a toll on both men and women. Unfortunately, ideas about appropriate male and female behavior are shaped early in life and rarely questioned. This study shows that the way women are perceived and treated in their communities can be changed. Social change is a slow process and the findings presented in this study could take a long to become established. However, the findings point in the right direction: the socias are trailblazers, pushing boundaries and setting an example for other women, particularly their daughters, which can lead to greater gender equality in the future. This example highlights the importance of role models in creating aspirations and helping women realize what they can accomplish.

Integrating gender considerations into the design of public works programs can reap high pay offs. Given its low implementation costs, the microenterprise program is low-hanging fruit ready to be replicated and expanded. Women's participation in MCVs is not a silver bullet, and other labor market policies are needed as well, but it has proven to be one measure that can be taken to alleviate entry barriers for women in a historically male-dominated sector.

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Appendix

Appendix 1

Additional background on the recruitment process and how work is organized.

How are women and men recruited into MCVs?

Per ABC guidelines, creating an MCV in a new community begins with an initial community meeting (*asamblea*) for interested community members to learn about the work opportunity and requirements. In most cases, it appears, however, that what in fact occurs is that an ABC representative visits a community and asks around for volunteers. Given the nature of the work and the remote locations involved, recruitment practices vary. In some cases, team members are selected according to need, but the local community plays an important role in recruiting and supplying MCVs with members. Officially, team members should not be family members or relatives, but in practice, recruitment often occurs through family bonds. Only 7% of the socias (female members of the MCV) interviewed said they learned about MCVs in a meeting. Most women (72%) heard about them from a family member or friend and another 17% were contacted directly by an ABC supervisor.

It is often difficult to replace team members who decide to leave a microenterprise. For some, mostly men, working in an MCV is not an attractive option because they perceive the payment as too low and unreliable. However, for women, the income, the possibility of having a formal job, and the flexibility are much more attractive. ABC, as a public employer, faces the same constraints as other public service entities and payment delays appear to be common. For many, this is their first formal employment and it requires identification, which in, some cases, proves challenging to obtain. Not all possess the documents required and many cite this as the main difficulty they encounter when joining a microenterprise.

> *"Most men did not want to work because they [ABC] explained to us that they will pay us with government money and they were afraid that salary would not arrive or would arrive late, at the beginning it was like that, we had to wait three months to get paid"*[13]

There is no special recruitment strategy targeted at women. The interviews revealed that both the supervisors and the working women themselves considered this to be somewhat of an odd concept. Before this specific question was asked, they had not entertained any gender considerations. In their view, recruitment and the (self-) selection process was gender neutral. Upon further inquiry, however, it was revealed that women are far more affected by time constraints (see discussion below) and that, for many, the type of work performed on the road was inherently considered to be "male."

How is work organized?

The MCVs are normally organized into groups of six members. In MCVs with mixed gender composition[14], members stated that they all have the same workload and perform the same tasks, with very few exceptions. In situations where physical strength is a clear advantage, men will take on that task (for example, lifting heavy stones). Both men and women put in the same effort and earn the same salary.

The job offers four important advantages: income security, job stability, time flexibility, and proximity to home. The socias state that what they like most about the job is the income security it provides. The steady flow of income allows for a certain degree of planning for the future. While they are content to receive a regular salary, many do point out that it is low. They also complain that they do not receive *aguinaldo,* a bonus paid to formal employees at the end of the year and binding by law, even though they are employed by the government. They unanimously say that it is not enough money to allow them to save.

The women also pointed out that the work schedule does offer some much-needed flexibility. In most MCVs, the work schedule is agreed upon within the group. Many socios and socias start early to avoid the afternoon heat and to accommodate team member's commitments at home. Starting times vary from 5 a.m. to 8 a.m. Per ABC rules, each MCV member is required to work 8-hour shifts, five days a week. When there is an emergency, such as a road being blocked by a fallen tree or the like, the MCV members must show up, no matter what difficulties this poses for socias with young children for whom they are the sole caretakers. The women highlighted that they like that the job is close to home, allowing them to attend to their household chores once they have finished their daily MCV workload. Most of the women do not bring their children to work because they understand the dangers of leaving their children by the road, however, for some, there is no other option. Brining children to their place of work may also be under-reported since the women are not allowed to do so.

[13] Please note that some of the quotes from the in-depth interviews have been slightly edited to improve readability. Unless otherwise noted, these statements are from the socias.

[14] Please see Appendix 2 for a breakdown.

Appendix 2

Table: Number of interviews with socias and socios per department

Department	Name of microenterprise	Total members	Socias' representation in microenterpris	Number of socias interviewed	Number of socios
La Paz					
1	10 de Noviembre SRL	8	50%	5	4
2	Caminata de Pacallo	6	33%	1	2
3	Flor de Limon SRL	8	50%	4	4
4	Huarapol Sociedad Civil	7	86%	3	1
5	Manatial	7	43%	3	0
6	San Martin	N/A	N/A	4	2
7	Siempre Unduavi	7	57%	2	1
8	Tempestad	7	43%	3	3
9	Tito Tilo Sociedad Civil	7	100%	2	0
10	Chijipata SRL	N/A	N/A	0	4
11	Solar Sociedad Civil	7	57%	0	3
	Group average/ Subtotal	**6.8**	**58%**	**27**	**24**
Cochabamba					
1	Challani Sociedad Civil	6	83%	5	0
2	Flor de Liz	6	100%	5	0
3	Sacaba Sociedad Civil	6	100%	5	0
4	Chocopata Sociedad Civil	9	0%	0	5
5	Heroes Sociedad Civil	6	0%	0	4
6	Huaylani Sociedad Civil	6	0%	0	5
	Group average/ Subtotal	**6.5**	**47%**	**15**	**14**
Santa Cruz					
1	Basilio Sociedad Civil	8	50%	5	3
2	El Cruce Sociedad Civil	6	67%	4	2
3	La Reforma	7	43%	3	4
4	Okinawa Sociedad Civil	7	57%	4	3
5	Omega Sociedad Civil	7	43%	2	5
6	Pejichi Sociedad Civil	7	57%	4	3
7	Relampago Sociedad Civil	N/A	N/A	3	2
8	San Juan Sociedad Civil	6	50%	3	3
9	Santa Fe Sociedad Civil	6	67%	5	1
	Group average/ Subtotal	**6.75**	**54%**	**33**	**26**
Total: 26 MCVs		**Total: 157 Members**	**53%**	**Total: 7 Interviews**	**Total: 64 Interviews**

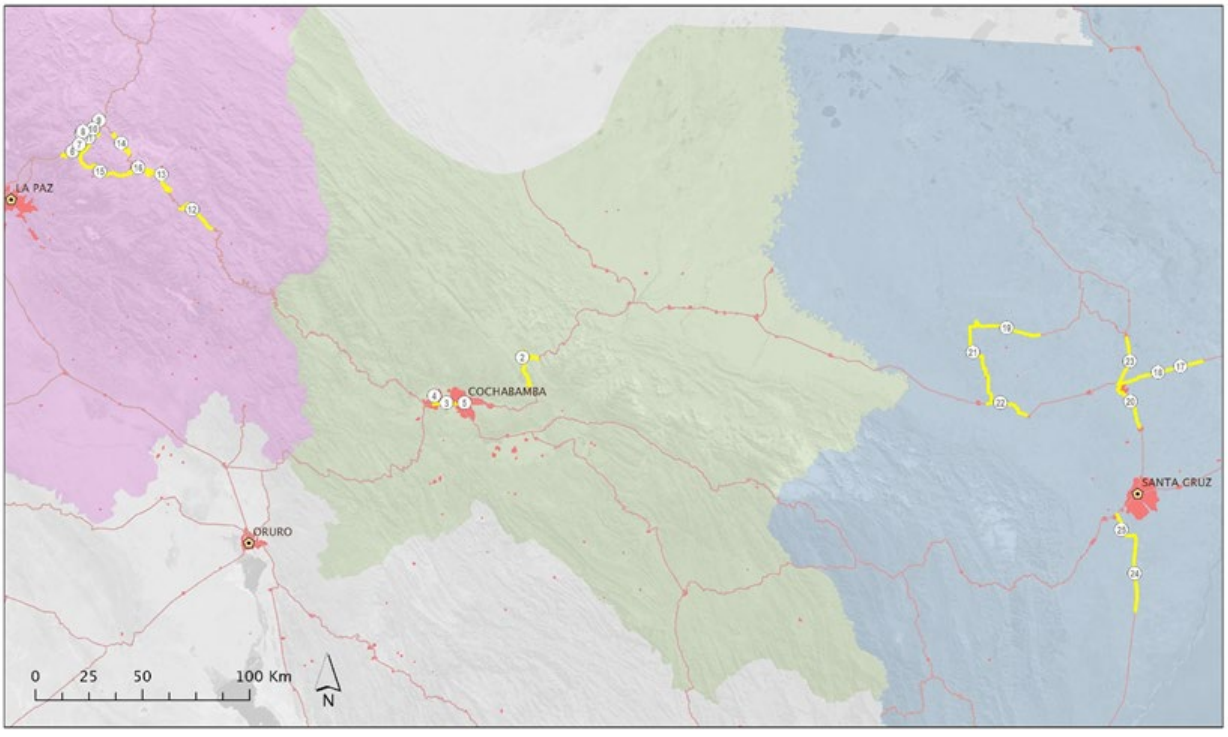
Appendix 3

Table: Demographic Information for Socias and Non-socias. En la tabla cambiar No-socias por Non-socias

	Socias				No-Socias			
	Sample	**La Paz**	**Cochabamba**	**Santa Cruz**	**Sample**	**La Paz**	**Cochabamba**	**Santa Cruz**
Number of observatios	**75**	27	15	33	**32**	8	10	14
Average age	**34.8**	32.1	35.3	36.8	**37.2**	42.6	38.9	32.9
Level of Education								
No education	**9.3%**	3.7%	6.7%	15.20%	**6.3%**	-	-	14.3%
Some primary/ primary completed	**57.3%**	63%	80%	42.4%	**46.9%**	75%	60%	21.4%
More than primary	**33.3%**	33.3%	13.3%	42.4%	**46.9%**	25%	40%	64.3%
First Language								
Castellano	**66.7%**	74.1%	20%	81.8%	**78.1%**	87.5%	40%	100%
Aymara	**12%**	22.2%	20%	-	**3.1%**	12.5%	-	-
Quechua	**21.3%**	3.7%	60%	18.2%	**18.8%**	-	60%	-
Marital Status								
Married	**30.7%**	22.2%	40%	33.3%	**25%**	37.5%	30%	14.3%
Single	**26.7%**	33.3%	40%	15.2%	**25%**	12.5%	40%	21.4%
In a Partnership	**37.3%**	40.7%	6.7%	48.5%	**43.8%**	37.5%	30%	57.1%
Widow	**1.3%**	3.7%	-	-	**3.1%**	-	-	7.1%
Divorced	**4%**	-	13.3%	3%	**3.1%**	12.5%	-	-
Household size	**4.6**	4.2	4.1	5.2	**4.3**	3.5	3.8	5.2

Appendix 4

Map: Geographic Distribution of MCVs covered in this study



Appendix 5

Table: Land and home ownership of socias and non-socias, by department and in percentage

		Socias				Non-Socias			
		La Paz	Cochabamba	Santa Cruz	Total	La Paz	Cochabamba	Santa Cruz	Total
Who owns the land?	Female (sole ownership)	18.5	6.7		8.0	12.5		7.1	6.3
	Both (joint ownership)	11.1			4.0	12.5			3.1
	Male (sole ownership)					12.5			3.1
	Female owns land	29.6	6.7	0	12.0	25.0	0	7.1	9.4
	Parents	18.5			6.7		20.0		6.3
	Does not own	44.4	86.7	100	77.3	62.5	80.0	92.9	81.3
	No information	7.4	6.7		4.0				
Total		**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Who owns the home?	Female (sole ownership)	18.5	6.7	36.4	24.0	37.5		28.6	21.9
	Both (joint ownership)	7.4		12.1	8.0	25.0	10.0	14.3	15.6
	Male (sole ownership)	3.7		21.2	10.7				
	Female owns the home	25.9	6.7	48.5	32.0	62.5	10.0	0	37.5
	Parents	14.8		9.1	9.3	12.5	20.0	28.6	21.9
	Does not own	18.5	40.0	12.1	20.0	25.0	70.0	28.6	40.6
	No information	37.0	53.3	9.1	28.0				
Total		**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Appendix 6

Table: Household decision-making by socias and non-socias, by department and in percentage

Who in the household decides:	Socias								
	Female	Her partner	Both	Son/ daughter	Father/ mother	Somebody else	Nobody	No information	Total
if you can work?	77.3	16.0	4.0		1.3			1.3	100
how to spend the household's income?	53.3	16.0	29.3		1.3				100
what food to buy?	60.0	13.3	22.7		4.0				100
which furniture, appliance, etc. to buy for the house?	44.0	22.7	29.3		4.0				100
where to live?	41.3	22.7	30.7		4.0			1.3	100
how to raise the children?	40.0	21.3	30.7		2.7		1.3	4.0	100
the children's education?	42.7	18.7	30.7		2.7		1.3	4.0	100
how long the children can stay out?	42.7	18.7	28.0		2.7		1.3	6.7	100
what to do if the children fall sick?	45.3	17.3	28.0	1.3	2.7		1.3	4.0	100
Who in the household decides:	**Non-socias**								
	Female	Her partner	Both	Son/ daughter	Father/ mother	Somebody else	Nobody	No information	Total
if you can work?	50.0	18.8	9.4			3.1	3.1	15.6	100
how to spend the household's income?	34.4	28.1	25.0		3.1	3.1		6.3	100
what food to buy?	34.4	25.0	28.1		3.1			6.3	100
which furniture, appliance, etc. to buy for the house?	28.1	28.1	28.1		6.3	3.1		6.3	100
where to live?	25.0	28.1	31.3		6.3	3.1		6.3	100
how to raise the children?	25.0	28.1	31.3		3.1			12.5	100
the children's education?	25.0	28.1	31.3		3.1			12.5	100
how long the children can stay out?	25.0	28.1	31.3		3.1			12.5	100
what to do if the children fall sick?	28.1	25.0	28.1		3.1			15.6	100

Appendix 7

Table: Total number and proportion of politically active women

	Socias	Non-socias
Politically active (absolute number)	**15 (out of 75)**	**8 (out of 32)**
Politically active (as proportion of women surveyed)	**20%**	**25%**
These politically active women are a member of (absolute numbers):		
Sindicato agrario	8	5
Organización Territorial de Base (OTB)	0	0
Organización Económica Campesina Agropecuaria (OECA)	0	0
Junta escolar	2	3
Comité de vigilancia de salud	1	0
Junta vecinal	3	4
Comité de agua y saneamiento	3	0
Comité de control social	0	1
Bartolinas/other women's organization	2	-
Other organization	2	0

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