

Combining Social Programs as a Stepping Stone towards Economic Empowerment among Rural Women in El Salvador

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Abstract

We aim to identify synergies and complementary aspects between conditional cash transfer (CCT) programs and rural development (RD) programs in El Salvador, to better understand how households react to the intervention of both programs, compared to participation in just one of them, in terms of key variables, such as use of the factors of production, poverty reduction, financial inclusion and gender equality. If synergies can be identified, CCT programs could design a more explicit, intentional exit strategy for families who are no longer eligible for transfers, through their participation in RD programs.

We provide evidence that potential synergies vary for households with different levels of human and physical capital; we show that the combination of programs could be beneficial as an exit strategy for CCT program participants; and we show how the combination of programs affects women's empowerment and how this empowerment may create a path to further economic progress.

Keywords: conditional cash transfers, rural development, gender, poverty alleviation, empowerment, mixed methods

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1. Introduction

Over the past two decades, conditional cash transfer (CCT) programs have become increasingly popular, having been implemented in more than 30 developing countries. The programs, which give funds to families generally in return for children's school attendance or use of health programs, hope to break the intergenerational cycle of poverty through greater human capital and higher future incomes. Numerous studies have analyzed the effectiveness of CCT programs for improving health and education indicators of children in beneficiary families.

Despite their focus on the alleviation of intergenerational poverty, policymakers often also seek to complement this long term benefit with short term gains in welfare of participating families, who typically are poor or extremely poor, identifying the need for exit strategies to continue support once transfer payments cease, through development programs that promote agricultural productivity or diversification or stimulate small scale, non-agricultural enterprises. However, very little research has been done on these policy options for the next step for families when they cease to receive the cash transfers.

In this paper we are interested in identifying synergies and complementary aspects between the CCT program and rural development (RD) programs in El Salvador, to better understand how households react to the intervention of both programs, compared to participation in just one of them, in terms of key variables, such as the use of the factors of production, poverty reduction, and financial inclusion and women's empowerment, especially in aspects beyond domestic issues. If these synergies can be identified, the CCT program could design a more explicit, intentional exit strategy for families who are no longer eligible for transfers, through their participation in RD programs.

Using a mixed-methods approach, we show that access to both types of interventions does not produce better results for income and farm productivity. This is probably due to the small monetary value of transfers, and implementation failures in rural development projects. It seems, however, that the poorest households, those who start out with lower levels of human and physical capital, benefit the most, especially when participants are women. We also show that participating in small scale, nontraditional agriculture projects could be an effective exit strategy for the CCT program, and these projects could serve as an intermediate stage, or *stepping stone*, to aspire to greater economic participation and income generation. We argue that what causes these possible synergies, or if it is other components the CCT program has in El Salvador, specifically training sessions and strengthening of social capital.

2. Literature Review

Meta-analyses of numerous CCT evaluations, frequently based on randomized control trials, have provided evidence that these programs can increase educational attendance and improve health indicators in the short term (Fiszbein and Schady, 2009; IEG, 2011b; Cecchini and Madariaga, 2011; Saavedra and Garcia, 2012; Baird, et al., 2013). A growing body of studies looks at how these short term benefits translate into better longer term outcomes as these

children age and enter the job market, achieving higher incomes (IEG, 2011a; Barham, et al., 2014; Baird, et al., 2015).

Some studies have looked at short term gains in CCT families' welfare, particularly when they receive complementary support through economic development programs. It is clear that poor households increase consumption and are less poor in a monetary sense when they receive transfers, but new public actors often emerge around CCTs networks, who are also engaged in the reduction of rural poverty. Other synergies and cross effects might appear given gender considerations, as CCT programs commonly are targeted for women.

The literature has identified different possible synergies between these types of interventions. Sabates-Wheeler, et al. (2009) and FAO (2014) find that social protection can support agricultural production by alleviating liquidity constraints and facilitating investment in production activities, by increasing income predictability and permitting farmers to take more risks than normal, and through community multiplier effects by increasing demand for locally produced food. Fiszbein and Schady (2009) state that the regular amount of money that CCT programs give to their beneficiaries can be the solution to different problems that the most vulnerable populations face and create new opportunities for them. However, as Sabates-Wheeler, et al., acknowledge, "There is an ongoing debate about whether social protection interventions that target the poorest of the poor should be expected to generate productive impacts on agriculture", given that the poor rarely have land or tend mainly to consume cash transfers rather than invest them.

A few studies have looked at combining social programas, specifically CCT and agricultural production support. In Nicaragua, Macours, et al. (2012) examine a pilot program, targeted primarily to women, which complemented a CCT with two interventions to promote income diversification, training for new skills outside of subsistence farming and a productive investment grant for adding livestock or for non-agricultural activities. Evidence showed that these complementary productive interventions, concurrent with the CCT, allowed households to protect themselves against the negative impacts of shocks, particularly drought, on both consumption and income. Another study in Ethiopia found the existence of such synergies on food security, asset accumulation, and agricultural productivity, including when a productive safety net program and a household assets building program are combined (Berhane et al., 2011).

Because most CCT programs are targeted towards women, the effect that these and other social programs have on women's empowerment is of particular interest, due to the positive impact these interventions can have on family investment in nutrition, health, and education (Yoong, et al., 2012).

However, we have not found previous studies which look at the combination of social programs, such as CCT and RD projects, and how this combination affects empowerment, both in general and for women specifically.

Kabeer (1999) defines empowerment as increasing people's ability to make choices in different aspects of their lives, particularly when previously these choices were denied to them. In Kabeer's definition, empowerment includes three dimensions for these decisions: resources, agency, and achievements or outcomes. In the context of studies on empowerment, agency can be defined as "an individual's (or group's) ability to make effective choices and to transform those choices into desired outcomes" or, alternately, "the process through which women and men

use their endowments and take advantage of economic opportunities to achieve desired outcomes” (World Bank, 2012).

The combination of social programs we are studying, which include rural development projects which emphasize agricultural production and food processing, adds the need to consider indicators for empowerment which are more specific to the agricultural context. In this sense, the Women’s Empowerment in Agriculture Index (WEAI), developed by Alkire et al. (2013), seeks to directly capture women’s empowerment and inclusion levels in the agricultural sector, and includes domains for production decision making, access to productive resources, control over use of income, community leadership, and time allocation. The WEAI focuses heavily on the “agency” aspect of empowerment (Sraboni et al., 2014).

The WEAI has been used in 19 country baseline studies for the Feed the Future Program of the United States Agency for International Development, which found that generally the largest gaps in empowerment exist in access to and decisions on credit, workload, and group membership (Malapit et al., 2014). It has also been used in Nepal to investigate the impact of women’s empowerment in agriculture on outcomes for mothers and children, finding that empowerment is significantly associated with positive maternal outcomes, and that women’s autonomy in production decisions and hours worked improve nutritional indicators for both mothers and children (Malapit et al., 2013). In Bangladesh, women’s empowerment was found to be associated with greater dietary diversity and calorie availability for households (Sraboni et al., 2014). Johnson and Diego-Rosell (2015) attest to its cognitive validity for assessing women’s empowerment in agriculture in Haiti with certain modifications in wordings of questions on the standard survey instrument.

These studies focus on identifying gaps in empowerment between women and men, or to study the link between women’s empowerment in agriculture and nutritional outcomes; we have not encountered research that has used the WEAI, or a similar index, to look at how social program participation, including CCT and agricultural development projects, can affect empowerment.

The WEAI has been criticized as “failing to get to grips with the social relations at the heart of gender dynamics in agriculture” (Okali, 2012). Indeed, empowerment does not take place in a vacuum, and relying solely on numerical indicators may not reflect the extent to which the surrounding social and political environment may contribute to the overall empowerment of women (Goodrich, 2015). Kruger and Pennotti (2015) suggest the importance of qualitative inquiries to complement information obtained through quantitative indicators of empowerment. This combination of quantitative and qualitative methods was used, for example, in Tanzania to evaluate whether women’s participation in marketing groups provides economic benefits and contributes to their economic empowerment (Baden, 2013).

Through a mixed-methods approach, our paper makes three unique contributions to the literature. First, it provides evidence that potential synergies vary for households with different levels of human and physical capital. Second, it provides the opportunity to differentiate between families who receive both CCT and production interventions, and those who participate in these RD programs but no longer receive cash transfers, as well as with families who no longer receive CCT and never participated in productive interventions, providing evidence as to whether these RD programs could be beneficial as an exit strategy for CCT program participants. And third, it

shows how the combination of programs affects women's empowerment relative to men, and how this empowerment may create a path to further economic progress.

3. Background

Although poverty has declined consistently in the last two decades in El Salvador¹, the rural poverty rate is still considerably high, 41.7% in 2013, compared to 30.6% in urban areas (DIGESTYC, 2014). Families involved in agriculture (as farmers or farmworkers) have higher poverty levels, 48%, compared to families associated with other sectors of the economy, where the poverty rate is 23%. This gap is even more impressive when considering that 15% of households associated with agriculture fall into the classification of extreme poverty, versus 4% for non-agricultural households (DIGESTYC, 2014). These gaps may be explained in good measure by the structure of land tenure and usage. In El Salvador, 91.5% of farmers grow maize, with an average area of 0.7 hectares, indicating dependence on a crop with low margins by land unit in typically small plots.

The role of rural women in agricultural activities in El Salvador is important. The IV Agricultural Census (DIGESTYC, 2009) found that while officially women represent only 11.5 percent of farmers in the country, 52.3 percent of unpaid family workers on farms are women, indicating that their personal investment, in this case, of time, dedicated to their family's production is under represented by the classification of who is a farmer.

3.1 Conditional Cash Transfer Program

The CCT program in El Salvador, *Comunidades Solidarias Rurales (CSR)*, or Solidarity for Rural Communities, operates in 100 municipalities (out of a total of 262), and was phased in between 2005 and 2009, with municipalities entering based on their levels of extreme poverty. The program, implemented by the *Fondo de Inversión Social para el Desarrollo Local (FISDL)*, or Social Investment Fund for Local Development, provides funds for households with children who have not completed primary education and for those with pregnant women or children under five years of age. Transfers are US\$15 a month for families who qualify for either the education or health assistance, and US\$20 for those eligible for both. In contrast to programs in other countries with finite application periods, families in the Salvadoran program receive payments until they no longer fulfill one of the eligibility requirements, typically that their children complete six years of primary education. Given that families could join the program only if they met these criteria at the time CSR began in their municipality, the total number of participants has gone down. In 2014 it is estimated that around 64 percent of original participants remain active; that year there were 73,647 families participating in CSR, close to 14 percent of the population in poverty in the country.

The mother or another woman in charge of children in the family (grandmother, aunt, etc.) is designated as the head of the family in terms of involvement in the program and for compliance with its conditions. This person also receives the monetary transfer. But responsibility for

¹ As measured by income level. In El Salvador, the relative poverty line is defined as two times the cost of the basic food basket for an average family, while the extreme poverty line is equal to the cost of one food basket.

participating in the program is not limited to the mother; the father is also named as jointly responsible.

CSR also includes informal training sessions on topics such as community organization, health and nutrition, gender equality, the rights of children, reproductive health, and domestic violence prevention; participants in these training sessions are almost exclusively women. CSR provides opportunities for social interaction for many women, which were previously scarce in rural areas. The training sessions are not officially part of the conditionalities, but the participants perceive them as such, with participations levels higher than 90 percent (Góchez, 2008). This component, which is generally not found in CCT programs, is key to understanding the impact of CSR. Because the value of the monetary transfer is relatively low, these training and networking opportunities may be the factor that generates change in the variables of interest.

3.2 Rural Development Program

The *Plan de Agricultura Familiar* (PAF), or Family Agriculture Program, was launched in 2011 by the *Ministerio de Agricultura y Ganadería* (MAG), or Ministry of Agriculture and Livestock, as a comprehensive and unified strategy for agricultural development (MAG, 2011). It includes two main interventions:

The **Food and Nutritional Security (FS)** component for subsistence farmers and their families, organizes farmer field schools (FFS) for improvement in traditional crops (maize and beans), family gardens, and natural resource management, as well as training for home hygiene and nutrition. Its main purpose is to improve the food security of subsistence agriculture families, with future opportunities for crop diversification and a transition to small-scale commercial agriculture. The initial selection process of participants in a community involves the local agricultural extension agent and a public health promoter, but if the extension agent has previous contact with the area, previously known families are often selected, although other farmers and local organizations may suggest additional participants. According to the design of the program, each extension agent is linked with 16 demonstration families, each of which in turn has the responsibility to transfer knowledge and technology to a group of 18 secondary families, effectively resulting in a coverage of 304 families per extension agent (FAO, 2011). In 2013, more than 35,000 families were listed as participating in the program (STP, 2014), representing around 10 percent of subsistence farmers in the country.

The **Value Chains (VC)** component is aimed at small and medium commercial farmers in ten strategic chains: basic grains (maize and beans), fruits, honey, aquaculture, dairy products, vegetables, cocoa, coffee, handicrafts, and rural tourism. Its activities include farmer field schools, efforts to improve cooperative activities for the purchase of inputs and sale of production, and the construction and operation of output collection centers. VC producers tend to be more advanced than families in the FS program in education, land access and other assets, and before entering the program were linked to producer or community organizations. Applications to join the program are received from these organizations or associations of local farmers. Between 2011 and 2013, 1,066 demonstration plots were established, and 30,462 farmers participated in the program (STP, 2014).

Rural development projects in El Salvador increasingly have sought to include women, sometimes as farmers but more often as members of organizations involved in non-agricultural productive activities (including food processing). In PAF activities, women represent 35 percent

of participants in farmer field schools in the FS group and 25 percent of participants in the VC group, and frequently are the majority of beneficiaries of donated inputs and equipment (MAG, 2012).

With available data, we found at least one of these agricultural interventions (FS or VC) in 77 of the 100 CSR municipalities. The largest overlap between both interventions is for FS projects, where almost 87 percent of participants are in the municipalities served by CSR, while for participants in VC programs, only 37 percent live in these municipalities. FS and VC projects are also in 98 additional municipalities in which CSR is not present.

4. Methodology and Data

The *research questions* of this paper are: 1) Do families that are beneficiaries of CCT programs and are also involved in RD projects perform better than those who only receive one type of intervention?; 2) Are synergies different for populations with different initial levels of human and physical capital?; 3) Are synergies produced by the monetary transfers or by the “other” components of CSR?; and 4) Is the addition of a production project a good "exit strategy" when households stop participating in CCT programs? To answer these research questions, mixed methods were used, combining quantitative and qualitative techniques.

The quantitative component assesses the effect of exposure to CCT programs, RD programs or both for rural populations. To do this, the following *hypotheses* were tested:

- Households that are beneficiaries of CCT programs and are involved in RD projects will have better opportunities to allocate and improve economic assets compared to households that receive only one type of intervention; this condition is reflected in the household *production system productivity*.
- Households that are beneficiaries of CCT programs and are involved in RD projects will be more successful than families that only receive one type of intervention; this condition is reflected in the level of *family income*.
- Households that are beneficiaries of CCT programs and are involved in RD projects will have greater access to formal financial markets than families that receive only one type of intervention; this condition is reflected in indicators of *financial inclusion*.
- Women that are beneficiaries of CCT programs and are involved in RD projects will have greater decision making power within their households than women that receive only one type of intervention; this condition is reflected in variables related to the *role of women* in household and productive decisions.

Target population is composed of rural households that would be eligible for both programs, whether they participate or not, and who reside in municipalities in which both the CCT program and one of the RD interventions function.

Four standard *comparison groups* are identified according to whether they receive CCT and whether they participate in RD projects, which are identified by the letters A, B, C and D (table 1). In the case of El Salvador, given the large number of households that have exited de CSR program, two additional groups were identified. Among households that do not currently receive CCT, there are some who received them previously, who can be divided between those who

stopped receiving CCT but participate in a RD project (group AC) and those who do not participate in such projects (group BD).

Table 1 Possible comparison groups

		RD Programs		
		Participant	Other	
Comunidades Solidarias Rurales	In CSR		A (CSR+RD)	B (RD)
	Not in CSR	Exited CSR	AC (exCSR+RD)	BD (exCSR)
		Never participated	C (RD)	D (None)

The *sampling frame* was generated by combining official lists of participants provided by FISDL and MAG; only observations that allowed appropriate treatment and control groups were kept: a) households that joined RD projects in 2012, b) households that exited CSR that received the last transfer in 2012. To classify households without RD to the appropriate control group, discriminant analysis was used. Finally, to account for possible unobserved differences due to self-selection for RD projects, for each pair of treatment and control groups, propensity score matching was used and only observations in the area of common support were kept.

The *final comparisons* that we were able to explore are as follows:

To evaluate if being exposed to both interventions is associated with better results than being exposed to only one:

Comparison 1. A vs C (CSR+RD vs RD): allows evaluating if participating in CSR and RD is associated with better results than only participating in RD. This comparison is possible for both RD programs, VC and FS.

To evaluate if synergies between CSR and RD are generated by the monetary value of the transfer or by the other elements of CSR (training that empowers beneficiaries or more social interactions):

Comparison 2. AC vs C (exCSR+RD vs RD): allows evaluating the effect of having participated in CSR and now participating in RD, with respect to only participating in RD: If no synergies are identified, but they are identified in the A vs C comparison, it would indicate that it is indeed the monetary value. If synergies are identified, and if they are similar to the ones identified in comparison A vs C, it would indicate that it might not be the monetary value. This comparison is only possible for FS households.

Comparison 3. A vs AC (CSR+RD vs exCSR+RD): allows evaluating if continuing to receive the monetary value generates synergies when combined with RD; if none is identified in this comparison but are identified in A vs C, it would indicate that it is not the monetary value.

To evaluate if RD projects are a good “exit strategy” for CSR beneficiaries:

Comparison 4. AC vs BD (exCSR + RD vs exCSR): allows evaluating the effect of having participated in CSR and now participating in RD, with respect to not participating in RD after exiting CSR.

The *identification strategy* involves simple differences. Since eligibility for the CCT program included a maximum age for children in the household, an additional criterion based on the concept of regression discontinuity was applied to define the treatment and control groups: households that had at least one child in the age range between two years younger or two years older than the age limit without completing primary school at the time the CCT program began in the municipality. The possible baseline differences were controlled using matching techniques. The average intent to treat effect was estimated, and to analyze the robustness of the comparisons between treatment groups, three matching methods were used (nearest neighbor with $n=1$ and $n=3$, and kernel analysis).

Data for the study included a survey included 1,301 households (650 men and 651 women) who were randomly selected; field work was conducted from January to April 2014. For the qualitative analysis, intentional sampling was used with participants identified among those who had responded to the quantitative survey. The qualitative analysis relies upon 50 semi-structured interviews and six focus groups, in which 48 people participated, for a total of 98 respondents.

5. Results

5.1 Descriptive statistics

Table 2 shows some initial characteristics of sample households, measured using data from the census FISDL conducted between 2005 and 2009. As expected, since the RD projects are aimed at different types of household populations, FS households tend to have less education, fewer assets (land and household goods), and lower income, while VC families tend to have a higher level of economic and social development. There are some differences between treatment and control groups, regardless of RD group; in the impact evaluation analysis, described in section 4.2, we control for these differences.

**Table 2. Sample general characteristics – before CSR
CSR census data (2005-2009)**

	Value Chains		Food Security			
	A	C	A	C	AC	BD
Household characteristics	(CSR+RD)	(RD)	(CSR+RD)	(RD)	(exCSR+RD)	(exCSR)
Children 2 years below or above eligibility threshold						
Number of children	1.2	1.0	1.2	1.1	1.2	1.2
Average age	15.8	15.3	16.3	16.2	16.2	16.8
Average schooling	3.4	2.8	3.0	3.0	3.0	3.3
Age, head of household	41.36	53.75	45.53	53.48	49.18	48.46
Schooling, head of household	4.17	4.79	2.15	1.71	2.45	2.65
Household goods index	1.41	2.28	0.86	1.38	1.29	1.14
Quality of life index	4.43	4.96	3.15	3.59	3.36	3.66
<i>Observations</i>	239	152	241	213	230	226

Source: Author's estimations with FISDL census data (2005-2009)

Table 3 shows household characteristics as measured using data from the 2014 survey, for each of the comparison groups. In terms of educational attainment, table 3 also shows that the level of education attained by young people aged 16 to 30 years, although it is to barely complete primary school, is significantly higher than that of the head of their household. Furthermore, among young people there is little difference between the levels of education achieved in the FS and VC households.

Table 3. Sample general characteristics – 2014 survey data

Characteristic	Value Chains		Food Security			
	A CSR+RD	C RD	A CSR+RD	C RD	AC exCSR+RD	BD exCSR
Head of household	65.7 %	79.6 %	62.7 %	66.7 %	72.6 %	58.4 %
Female	46.4 %	38.2 %	51.5 %	45.1 %	52.2 %	62.8 %
Age	43.1	56.6	45.7	51.5	47.9	46.0
Education, in years	3.8	3.6	2.1	2.5	2.7	3.0
Age of head of household	46.1	59.0	48.5	55.5	51.6	51.6
Education of head of household	3.54	3.58	2.05	2.13	2.43	2.38
Education, 16 to 30 year olds	6.41	6.54	5.28	6.55	6.51	6.30
Size of household	5.6	3.4	6.0	4.3	4.8	4.5
Receive remittances	19.7 %	27.0 %	27.4 %	26.8 %	30.0 %	27.9 %
Own land	95.0 %	92.1 %	93.8 %	93.0 %	95.7 %	87.2 %
Area (hectares)	1.14	1.54	0.87	0.86	0.97	0.74
Cultivate only basic grains	85.5 %	75.6 %	93.4 %	90.7 %	91.7 %	89.7 %
Introduced new crop or animal	18.1 %	15.1 %	17.8 %	17.4 %	16.1 %	16.4 %
Productivity (US\$ per hectare)	571.0	780.9	290.1	324.2	298.7	287.3
Participation in associations						
Producers	16.7 %	24.3 %	4.1 %	2.8 %	2.6 %	1.8 %
Producers and/or community	56.1 %	55.3 %	27.4 %	25.8 %	22.2 %	19.5 %
Sell production through organizations	5.0 %	9.9 %	0.4 %	0.5 %	0.4 %	0.4 %
Total income	3,619.4	3,228.8	1,774.5	1,749.7	1,715.8	1,743.7
Agricultural income	1,827.1	1,321.6	506.8	611.0	467.8	374.6
Assets index (household and production)	9.3	9.6	7.7	8.6	8.5	7.6
Lack of diet variety						
Eat something else in less than 5 meals/week	90.0 %	90.1 %	90.5 %	89.7 %	91.3 %	95.1 %
To be able to buy food:						
Sold something	17.2 %	19.1 %	17.4 %	16.0 %	17.4 %	20.4 %
Sold something or used savings	25.1 %	25.0 %	22.8 %	24.4 %	22.6 %	28.3 %
Have credit or bank accounts	39.3 %	40.1 %	22.4 %	14.1 %	21.7 %	15.0 %
<u>Have the last word on:</u>						
All (both sexes)						
How to spend household income	51.5 %	59.9 %	49.4 %	52.1 %	57.0 %	55.3 %
Buy food	42.3 %	61.2 %	46.9 %	43.2 %	47.4 %	48.2 %
Buy clothes for children	37.7 %	46.1 %	45.6 %	37.6 %	40.4 %	41.6 %
Women						
How to spend household income	43.2 %	60.3 %	46.0 %	41.7 %	55.8 %	54.2 %
Buy food	55.0 %	77.6 %	56.5 %	50.0 %	58.3 %	52.1 %
Buy clothes for children	52.3 %	60.3 %	55.6 %	41.7 %	51.7 %	47.2 %
Observations (N)	239	152	241	213	230	226

1/Index based on Women's Empowerment in Agriculture Index (WEAI), IFPRI.

Source: Author's estimation with 2014 survey data.

The size of land available to households in the sample is small, for VC households close to 1.5 hectares while FS households have less than one hectare; in relative terms, compared to most other countries in the Latin American region, these landholdings are all quite small.

Participation in community or producer organizations is higher, almost double, in households participating in VC projects compared to those in FS projects. The most noticeable difference is in participation in producers' associations, which among FS households does not exceed four percent. Similarly, very few households sell their production through organizations, less than 10 percent of VC households and among those in FS projects, virtually none.

Almost all respondents farm; there are few differences between groups. Of those who cultivate land, families in FS projects are more likely to grow only basic grains, about 90 percent. Among VC households, between 15 percent and 18 percent of respondents reported having introduced some new agricultural activity (crop or animal) since 2012, which is the year that would have begun to participate in a RD program. On the other hand, gross farm income per land unit is considerably higher in VC households than that achieved in FS families; in some cases, revenue achieved is almost twice as much.

Total income of households participating in VC programs is almost double that of households participating in FS programs. Since the income of rural households have a large variability and high volatility, we built a series of indicators that can be considered a proxy for income. As for other income indicators, we constructed an assets index, which includes both household and productive assets; this index is higher for households participating in VC projects than for FS households. The lack of dietary variety is notable in all comparison groups; even though the income of households participating in VC projects is considerably higher than that of the households participating in FS projects, around 90 percent of households in all groups said they ate something different than tortillas and beans only less than five times a week. Over 20 percent of households in all groups indicated that due to a lack of money they had to sell something or use savings to purchase food.

In terms of financial inclusion, about 40 percent of VC households reported having formal credit or savings accounts in financial institutions, while the percentage for FS households is lower, between 15 percent and 22 percent.

To identify potential synergies on the role of women in decision-making, the survey included a series of questions about who has the final word on a number of issues, both domestic and production related. Although levels of human capital and household resources are different between participants in FS and VC projects, in the case of women who participate in CSR and RD (group A), the decision-making percentages are similar. Meanwhile, for the FS households, women who participate or have participated in CSR (groups A, AC and BD) tend to have greater say than those who have not (group C).

We constructed an indicator similar to that proposed by Alkire et al. (2013) in the Women's Empowerment in Agriculture Index, with some modifications, which explores the five domains: production decision making, access to productive resources, control over use of income, community leadership, and time allocation. Table 4 shows aspects we included, and how each domain is weighted to produce the overall empowerment index.

Table 4. Construction of the empowerment index^{1/}

Domain	Weight
Domain 1: Production	1/5
Input in production decisions (at least one) Crops to produce; inputs to buy; sales; conservations practices; machinery purchases.	1/2
Own work	1/2
Domain 2: Resources	1/5
Asset ownership (at least one) ^{1/} Owns majority of agriculture assets or majority of household assets	1/3
Input in decision to sell (at least one) ^{1/} Agricultural assets; household assets	1/3
Input in credit decisions (at least one) ^{1/} Decisions to borrow; decisions on what to do with the money	1/3
Domain 3: Income	1/5
Input on how to spend household income	1/2
Input on how to spend own money	1/2
Domain 4: Leadership	1/5
Active member of any association	1/2
Feels at least partly comfortable speaking up in the community	1/2
Domain 5: Time allocation	1/5
Satisfied with time available for leisure (score at least 5 on a scale from 0 to 10)	

^{1/} Index based on Women's Empowerment in Agriculture Index (WEAI). Modifications were made based on the design of the survey instrument, using available information consistent with or comparable to the original WEAI questionnaire.

As can be seen in table 5, individuals in households participating in VC projects have higher levels of empowerment in all domains compared to those participating in FS projects. In turn, the results for the various groups involved in RD programs are quite similar, whether or not they receive CCT, but individuals who do not participate in RD programs have lower rates of economic empowerment, with the exception of community leadership.

5.2 Impact Evaluation Results

In this section, we discuss the results of the impact evaluation for main variables. In this context, the intention is not to evaluate the impact of each program, but rather the effect of having both programs (CSR and RD) compared to having only one (CSR or RD).

Through the survey we identified some households that should be receiving received CCT but mentioned they did not, while others that were supposed to be inactive or should have never received CCT but replied that they did receive them. Also, some households that were listed as participating in RD programs responded they did not. For these reasons, we estimated the average *Intent to Treat Effect* using *simple differences*, as follows:

$$E_{it} = \beta X_i + \delta T_i + u_i$$

where:

E_{it} = Variable of interest for household i
 i = household indicator

Table 5. Empowerment indicators^{1/}

Domain	Value Chains		Food Security			
	A CSR+RD	C RD	A CSR+RD	C RD	AC exCSR+RD	BD exCSR
TOTAL						
Empowerment index	0.747	0.755	0.663	0.687	0.684	0.648
Domain 1: Production	0.801	0.816	0.716	0.749	0.772	0.666
Domain 2: Resources	0.647	0.689	0.548	0.573	0.568	0.506
Domain 3: Income	0.881	0.888	0.873	0.862	0.889	0.803
Domain 4: Leadership	0.701	0.651	0.488	0.498	0.450	0.447
Domain 5: Time allocation	0.703	0.730	0.693	0.756	0.739	0.819
<i>Observations</i>	239	152	241	213	230	226
WOMEN						
Empowerment index	0.702	0.724	0.585	0.614	0.624	0.590
Domain 1: Production	0.631	0.707	0.500	0.568	0.633	0.539
Domain 2: Resources	0.502	0.626	0.414	0.514	0.489	0.427
Domain 3: Income	0.847	0.931	0.823	0.797	0.875	0.771
Domain 4: Leadership	0.721	0.612	0.480	0.453	0.408	0.433
Domain 5: Time allocation	0.811	0.741	0.710	0.740	0.717	0.782
<i>Observations</i>	111	58	124	96	120	142
MEN						
Empowerment index	0.785	0.774	0.746	0.747	0.748	0.746
Domain 1: Production	0.949	0.883	0.944	0.897	0.923	0.881
Domain 2: Resources	0.773	0.727	0.689	0.621	0.655	0.639
Domain 3: Income	0.910	0.862	0.927	0.915	0.905	0.857
Domain 4: Leadership	0.684	0.676	0.496	0.534	0.495	0.470
Domain 5: Time allocation	0.609	0.723	0.675	0.769	0.764	0.881
<i>Observations</i>	128	94	117	117	110	84

¹ Index based on Women's Empowerment in Agriculture Index (WEAI). Values were obtained based on individual survey responses. Results are reported based on gender of the respondent.
Source: Author's estimation with 2014 survey data

T = 1 for those who receive the treatment (combination of programs), 0 for control, those who participate in only one program

X = Control variables: initial household characteristics before entering CSR (used for matching: age of head of household, education of head of household, an index of household goods which indicates quality of life)

u_i = Error term

coefficients:

β = Controls for baseline characteristics, control variables

δ = Estimated effect of receiving the combination of programs

Propensity Score Matching was used to control for the potential initial differences described previously; control variables were measured at the origin, i.e., with FISDL census information; these variables are some of the observable characteristics used for the selection of CSR beneficiaries. Two of the variables included here replace some included in the Proxy Means Test used to select original beneficiaries of CSR. The first one, age of the head of household, was included because households where the age of the youngest child was above the threshold would tend to be older than those whose eldest child was two years below the threshold for eligibility;

including this variable controls for the lifecycle stage of households. The second is the quality of life index, which is an indicator of access to various basic services: water, electricity, sanitation, etc., which are variables that are included in the Proxy Means Test.

In table A1, in the appendix, we show that means of the control variables included are balanced for treatment and control groups for each of the comparisons; results shown are adjusted for the propensity score, using the methodology of the nearest neighbor (n = 1). The results for other indicators are also presented.

Below we present results of the impact evaluation for comparisons described in section 3. To test for robustness, we present the coefficients obtained using three matching methods: nearest neighbor (n = 1 and n = 3) and kernel. In tables 6 and 7 we present summary of impacts identified. Detailed results, including coefficients and standard errors can be found in tables A2 through A5 in the appendix.

Table 6 Summary of Impact Results: Production and Income

Area	Indicator	Value chain	Food Security and Nutrition		
		CSR+RD vs RD	CSR+RD vs RD	CSR+RD vs exCSR+RD	exCSR+RD vs exCSR
Production	Introduced new crops	++			
Income proxy	Asset index				-
	Lack of diet variety, %				-
Financial inclusion	Savings account				
	Formal credit				
	Have savings account		+	++	++
Participation in associations	Productive, %		++		
	Community, %				
	Productive or community, %				

Note: (+ or -) indicates coefficient is significant to the level of 0.1, (++) or (--) significant to the 0.05 level and (+++ or ---) significant to the 0.01 level.

Source: Author's estimates using 2014 survey data.

Comparison 1. Effect of participating in CSR and in RD projects (A vs C). This comparison takes into account households in the RD programs and differentiates between those who also participate in the CCT program (group A) and those that have never received transfers (group C); results are shown in table A2 in the appendix. Having access to the two types of interventions does not produce better results than access to only the FS or VC program, both in terms of income and productivity. For VC households, to have both interventions resulted in an increase of between 10 and 15 percentage points in the proportion of households that introduced a new production activity, whether crops or livestock. For FS homes, impacts were identified regarding financial inclusion: the proportion of households with access to formal credit increases between 13 and 15 points when both interventions are present. Although small, we also found an increase of about three percentage points in the share of households who were members of producer organizations. In this comparison, we did not find impacts related to empowerment.

Table 7 Summary of impact results: Empowerment indicators

Area	Indicator	Value chain	Food Security and Nutrition		
		CSR+RD vs RD	CSR+RD vs RD	CSR+RD vs exCSR+RD	exCSR+RD vs exCSR
Empowerment index	Both				
	Female				
	Male				
Domain 1: production	Both				
	Female	–		–	+
	Male		++		
Domain 2: resources	Both				
	Female	–			
	Male		++		
Domain 3: income	Both				
	Female	–			+
	Male				
Domain 4: leadership	Both			–	
	Female				
	Male				
Domain 5: time (satisfaction)	Both				
	Female			–	–
	Male				

Note: (+ or -) indicates coefficient is significant to the level of 0.1, (++) or (--) significant to the 0.05 level and (+++ or ---) significant to the 0.01 level.

Source: Author's estimates using 2014 survey data.

Comparison 2. Effect of participating in FS projects and previously participating in CSR (AC vs C). This comparison takes into account households in FS projects and differentiates them according to whether they previously participated in CSR (group AC) or never did (group C); results are shown in table A3. We could not identify impacts on production or income indicators. However, positive results were obtained for financial inclusion indicators; the proportion of households with access to formal credit increases between 5 and 8 points among households that had participated previously in CSR. Positive impacts were also found in indicators of women's empowerment in the production domain. These results are similar to those obtained for comparison 1 (A vs C).

Comparison 3. Effect of continuing to participate in CSR while participating in a RD project (A vs AC). This comparison takes into account households participating in FS projects, differentiating between those who continue to participate in the CSR (group A) and those who have already exited the program (group AC). At the time households began to participate in the FS project in 2012, both groups had received transfers and participated in the other CSR activities for between 3 and 7 years. No impacts for any of the main indicators were identified (table is not shown but is available upon request).

Comparison 4. Effect of involvement in CSR and, upon leaving, participating in projects FS (AC vs BD). This comparison takes into account households that have exited the CSR program and differentiates between those that participate in FS projects (group AC), and those that have not participated in RD projects (group BD); results are shown in table A4. No impacts on income or production are found. However, those who previously had participated in CSR and are in FS projects performed better in terms of financial inclusion; on average, the proportion having access to credit is between six and eight percentage points higher, and the proportion with access either to a bank account or formal credit is between eight and 11 percentage points higher. These households also have more assets and greater variety in their diet. Finally, positive impacts on women's empowerment also were identified.

5.3 Key Findings from Qualitative Analysis

The results of the qualitative analysis help to explain, to some extent, the quantitative results described above; implementation failures identified in the RD projects may be diluting their results.

For example, there is no proper monitoring of projects by extension agents. Many respondents consider that the technology transfer and training sessions in the RD program are poorly executed, particularly in the FS project, where the materials and methodology used for training may not be appropriate for the educational level of participants.

Additionally, FS projects, where the main activities are home gardens and small scale poultry, are apparently attractive for women but not for men, who consider it to be more of a woman's activity, nor for young people. There appears to be a vision more of doing these activities for subsistence and not for productivity (for commercial, scalable production); this preconception could be limiting results for income generation.

The qualitative analysis also provides elements to indicate that synergies are greater among women, accentuating the idea that the greater impact in changing people's perception about their own development and life expectations, comes from the CSR training and support processes, since it is generally women who participate in them.

Synergies between the two types of social programs are greater for women, indicating the impact of training sessions and social capital strengthening in the CCT program on women's agency and life expectations. For women who currently or previously participate in CSR but did not participate in rural development programs, some do relate their life aspirations to productive expectations. These families depend on subsistence agriculture and would fulfill criteria to receive benefits from PAF, but do not fall within the program area. They describe how they are waiting for resources and assistance to insert themselves into productive activities:

"To me what I would like to plant are tomatoes and vegetables...a more serious business...Ah, my personal dreams are for something maybe that...that may let me produce something else, to earn a little bit more than I do for corn, if that" (woman, former CSR participant).

When CSR and FS are combined, we detect changes in life aspirations, including the possibility of incorporating productive activities in the future. An interesting synergy emerges, where women have included in their expectations for their lives, new economic activities or ways to

improve their diets that they had not previously considered, such as home gardens or fruit orchards.

"It helps me that now I don't have to buy a pepper or a tomato. The cabbage seeds that I planted I can take advantage of them, and I say, I'm going to harvest one and have it....Do I sell the chickens? Yes, I sell them in the market...and the fruit is for us to eat at home." (woman, FS and CSR participant).

They change their expectations for the future and believe that their economic situation may change if they improve their crops:

"It's that here everything is about making earthenware, and crops are for eating, but if we could grow more, it would mean more cash" (woman, focus group, FS and CSR participants).

These women also showed more proactivity, describing how they try to effectively use inputs and equipment they receive in agriculture programs, compared to women who only participated in the rural development programs, who describe a less productive use of these inputs, indicating that CSR families achieve basic skills that allow them to better take advantage of production support programs.

We found that people who no longer receive CCT and do not participate in an RD project, have more limited expectations for their productive activities, because they are not associated with any support programs:

"It's that I like to work in agriculture but I don't have any help to do so, but there's always work to do. For example, I didn't fertilize the corn well. There was a little fertilizer, and I put it because I didn't have enough to fertilize it well but that's not why it didn't sprout. Because today because of the drought, some are losing everything around here. For example, some have cut the corn down because it didn't produce anything" (woman, former CSR participant).

When the benefits of CSR are combined with production assistance, beneficiaries, particularly women, visualize more possibilities for their economic activities. Even without the FS program, they have greater expectations and seek other opportunities to move ahead with productive activities, particularly in agriculture.

FS projects where the main activities are home gardens and small scale poultry, apparently are more attractive for women but not for men, who consider it to be more of a woman's activity. Participants indicate that these activities are more for subsistence and not for commercial production; this preconception could be limiting results for income generation.

Although the women interviewed generally do not perceive themselves as "producers", those who receive inputs and equipment for a small poultry operation or home gardens often indicate that they were able to help their families with the additional income generated:

"Look, I lived in a small hut, as small as the kitchen I have now. But looking hard at it, working in agriculture and in the business of clay pots, I have my house. And the fact that the father of them left, but I have my house, I'm not out looking for money, and when it's time to go to the fields, they can eat, and I don't have to rent land because it costs, too" (woman, CSR and FS participant).

Some CSR beneficiaries perceive they have greater access to food for their families:

“Young children are the ones who go to this program...because they sometimes are underweight, she tells me. They may not have any idea what they eat. So they give us, like I said, those seeds for them to grow and feed to the children, because even one pepper that grows, I don’t have to buy it at the shop, nor a tomato, because I cut one and fix it. I only buy eggs now” (woman, CSR and FS participant).

In general, no profound improvements in overall food security were detected, but changes in the composition of diets were more common. Women who are or were CSR participants and also FS program beneficiaries mentioned taking advantage of the home gardens they grew and chicken coops they started with the help of the project, in terms of how this helped improve their children’s diet. In contrast, among members of a focus group of FS participants who had never been in CSR, none mentioned the potential of improving their family’s diet or issues related to food security, despite having home gardens.

6. Discussion

The possibilities for synergies differ depending on the type of intervention in rural development, for food security (FS) programs or value chain (VC) programs. More notable results are found when CSR and FS are combined; it seems that the poorest households, those who start out with lower levels of human and physical capital, benefit the most, especially when the participants are women.

In terms of increases in income and productivity, the results of the comparison A vs C (CSR + RD vs only RD) for both the FS and VC cases, fail to show that having access to two types of interventions produces better results than having access to only CSR or RD programs. However, other indicators for synergies were identified, depending on the type of household. VC households that also receive CCT were more likely to diversify production activities (crops and animals), while for FS families, having access to both interventions produces better results in financial inclusion, mainly by increasing access to credit, and participation in producer organizations.

For the comparison AC vs C (exCSR + RD vs RD), among FS program households, the quantitative results suggest that households that participate in a FS project and no longer receive cash transfers, perform better in financial inclusion, compared to those who never participated in CSR. In this case, impacts were also found in the increased empowerment of women in decisions related to agricultural production. Since impacts were identified and these are similar to those described in the previous comparison (A vs C), it indicates that since group AC no longer receives cash transfers, and both treatment and control group participate in RD programs, the only difference is the participation in the “other” components of CSR.

For comparison A vs AC (CSR + RD vs exCSR + RD) for FS households, the difference between the group that continues to receive CSR and those that no longer receive it, is not significant for the vast majority of variables. These results support the hypothesis it is not the continued benefit of receiving the monetary value of cash transfers which creates synergies, but rather the other components of the program, including informal training and opportunities for social interaction. However, this does not imply that the transfers themselves are not necessary; a previous impact evaluation showed that they serve as an incentive for households to meet

conditions of the CSR program (IFPRI and FUSADES, 2010), and therefore are important to facilitate later synergies.

Finally, the results of the comparison AC vs BD (exCSR + RD vs exCSR), ie, synergies generated by participating in a FS project even though CSR participation has ended, are quite positive in all areas evaluated, including various indicators of empowerment. These results suggest that participation in an agricultural development project could be a good exit strategy for the CSR program.

The quantitative results could not identify synergies in terms of agricultural productivity and income. Several factors may be influencing these results, for example a drought which was occurring during the data collection, or the heavy dependence on basic grain production even though its profitability is low, compared to other value chains, such as fruits and vegetables.

The lack of notable impacts in production may be due to the methodology employed by the RD programs, particularly farmer field schools (FFS) and a dependence on peer-to-peer diffusion. A meta-analysis of 92 different studies on FFS suggests that “impacts are limited to diffusion of simple rather than complex practices, and that there was no evidence that these were sustained in the long term”, and that diffusion improves with the educational level of participating farmers (Phillips, Waddington, and White, 2014). The capabilities of demonstration families in the Salvadoran Food Security (FS) program to effectively share knowledge gained in the FFS, may be severely limited; their schooling levels are very low.

Quantitative results do indicate that significant synergies are generated by combining programs in other aspects. However, the qualitative analysis suggests that potential results are being limited by implementation problems or inefficiencies in RD programs. For example, specifically for the FS projects, the high number of families per extension agent may be an extremely limiting factor in terms of the quantity and quality of care that the agent can devote to each family. This has generated little sense of ownership by FS beneficiaries in the program, and it is perceived as a welfare benefit rather than as a means to increase productivity.

The qualitative analysis also provides elements to indicate that synergies are greater among women, accentuating the idea that the greater impact in changing people's perception about their own development and life expectations, comes from CSR training and support processes, since it is generally women who participate in them.

Qualitative analysis indicates that women who received CCT and, therefore, training in the program, achieve greater empowerment in the domestic domain, in terms of having their own income, and benefit from greater socialization, improved self-esteem, and more self-determination in their family relations. The CSR impact evaluation (IFPRI and Fusades, 2010) found that:

"Women were empowered in particular through formal knowledge gained in training and the dynamics of participation in meetings, which helped them lose their fear to express themselves and become more open and secure speaking up in their families and communities. Also, beneficiaries appreciated the participatory nature of the training, which has helped to strengthen their self-confidence and community spirit. Both men and women said during the training, a woman would be selected to come forward and explain a topic to other participants. Many women said they felt nervous at the beginning, but that the practice helped them overcome their

shyness, boost their confidence and speak more now than before. These changes or reinforcements in the attitudes of women are very important for their role in the home”.

Empowerment related to participation in CSR was achieved mainly in relationships within the household. For example, a female beneficiary of CSR stated:

"Yes, because before I was so shy, even to talk to him like he was a little serious, I was a little shy. But today as I feel more emboldened to speak because of all they have taught us, that we are important, too, and we can feel that someone supports us and I can talk to him. And before that if he did something that I did not like, I would say everything is fine, it's fine to everything. But not today. If he says he's in charge in the house and I felt afraid, although not that he would hit me, but that it would cause a big fight. But now even he tells me, you've changed a lot, but I tell him that when you get more experience, you learn more, and it's better" (CSR beneficiary, Canton Pacayás, IFPRI and Fusades, 2010).

The results of this study also found that the CSR program has contributed to the empowerment of women within their households. This is most apparent for FS households, less so for VC participants. Through interviews and focus groups we also found that, in general, women involved in FS projects and who had participated in CSR tended to be more proactive and mention that they *"see how to make a good use of things"* they received, while those that had not participated in CSR tended to mention that *"as they got things"* they just used them with little thought. It seems that CSR activities have contributed to increase basic skills and capabilities of households, that enable them to better take advantage of RD programs.

Despite feeling more empowered in the home, women are not generally considered "producers", that is, not identified as economic actors, by others or by themselves. This partitioning of empowerment has also been found in another study in El Salvador, where the conventional discourse identifies the work of men as "productive", while the activities of women are identified as "help" or "household chores" (Gómez Galo et al., 2013). This finding is not unique to El Salvador; the traditional roles of women influence their perception of their capabilities and their potential effect on economic activities (World Bank, 2012). However, even though women do not tend to perceive themselves as "producers", in interviews several women mentioned with the income they generate, they can "help their spouses or children".

Finally, the combination of quantitative and qualitative results provides a better understanding of what may be the logical path that exists or that could enhance synergies between the two types of interventions. For example, for many women, small vegetable plots or chicken growing activities are an intermediate step, or a "stepping stone" to aspire to something more.

7. Conclusions

Different outcomes for participants in FS and VC projects are found, however in both cases, the results show that access to both types of interventions does not produce better results for income and farm productivity. This is probably due to the small monetary value of the transfers, and implementation failures in rural development projects.

For participants in FS and CSR projects, positive synergies include access to formal credit and, to some extent, participation in farmer organizations. Positive impacts on financial inclusion and

women's empowerment in production aspects was found for former CSR beneficiaries who also participate in FS projects.

Other results seem to suggest that the other components of the CSR program, such as training and opportunities for social interaction, and not cash transfers, enhance synergies by empowering beneficiaries who in turn can make better use of RD programs. These results suggest that participation in a RD project could be a useful exit strategy for the participants in the CSR program.

Synergies between RD and CSR programs appear to be higher for women than for men. These results are clearer among FS families, whose activities, such as small vegetable gardens or small scale chicken operations, are attractive to women. These projects can function as an intermediate step ("stepping stone") where they aspire to something more; the next step is to design appropriate support policies that allow them to generate more income.

The RD projects require modification to be more effective, because although they originate from a well conceptualized design, their implementation has suffered various shortcomings, which dilutes their impact. The qualitative study identified areas for improvement, which if resolved, could impact positively on quality of life for rural households.

8. Methodological Limitations and Suggestions for Further Research

For this study, we faced some methodological restrictions. The first is that it seeks to assess possible synergies between two programs that were implemented with different objectives, and for which populations of interest are not necessarily the same, even if the two programs are implemented in the same territory. This is most evident in the case of VC projects, and less so for FS projects.

This study is also an ex post assessment; being unable to build a baseline leaves only a single observation in time, limiting the identification strategy to simple differences. Moreover, the construction of control groups, or the counterfactual, resulted in that some characteristics of human capital and others not expected to be changed by program participation, were significantly different. However, these differences were minimized in the analysis by using control variables.

The analysis does not take into account other exogenous factors, such as the operating environment and other markets. However, since both the individuals in the sample for treatment and control groups were found in the same geographic areas, it is not thought that these differences could be influencing results.

This project illustrates the importance of having a variety of integrated methodologies in the study design; this combination of research techniques, quantitative and qualitative, helped to overcome certain methodological difficulties and to more successfully answer research questions.

An important lesson from the experience gained in this study is that having a qualitative research component lets the evaluation process discover program limitations that otherwise would not be apparent, which, in turn, lets evaluators identify areas that could be subject to more rigorous quantitative evaluations in the future.

There are some issues that require further study, where perhaps the highest priority rests in the identification of mechanisms whereby FS beneficiaries can take the "next step" in their economic development. The qualitative results indicate that training and technical assistance may not be sufficient, even though some received assets from the project (vegetable seeds and basic irrigation equipment, chickens and materials to build rudimentary chicken housing, etc.). Could it be that more financial capital is required? Is there a minimum level of physical capital that is required? What is the "tipping point" that would allow them to take this next step?

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Appendix A. Analytical Tables and Results

Table A1. Initial characteristic of treatment and control groups

Values adjusted by participation propensity score

Variable	Group	VC	FS			
		A vs C	A vs C	A vs AC	AC vs C	AC vs AC
Age, head of household (years)	Treatment	41.4	45.5	45.5	49.3	49.2
	Control	41.9	44.8	46.3	48.0	50.7
	<i>T statistic</i>	-0.2	0.43	-0.47	0.72	-0.8
There is a spouse in the home (%)	Treatment	83.7 %	81.3 %	81.3 %	69.1 %	69.1 %
	Control	46.4 %	75.5 %	71.4 %	71.4 %	55.7 %
	<i>T statistic</i>	-0.2	0.43	-0.47	0.72	-0.8
Number of household members	Treatment	5.9	7.3	7.3	5.8	5.8
	Control	2.9	4.7	5.7	4.8	5.5
	<i>T statistic</i>	-0.2	0.43	-0.47	0.72	-0.8
Schooling, head of household	Treatment	4.2	2.15	2.1535	2.456	2.4565
	Control	5.7	2.045	2.0622	2.1391	2.5
	<i>T statistic</i>	-0.2	0.43	-0.47	0.72	-0.8
Schooling, 16 – 30 year olds	Treatment	4.5	3.45	3.45	3.8405	3.84
	Control	5.8	4.41	3.58	4.1243	3.97
	<i>T statistic</i>	-0.2	0.43	-0.47	0.72	-0.8
Number of household members that work	Treatment	1.8	2.73	2.73	2.213	2.213
	Control	1.2	2.74	2.112	2.648	2.10
	<i>T statistic</i>	-0.2	0.43	-0.47	0.72	-0.8
Household goods index	Treatment	1.4	0.863	0.863	1.2956	1.2956
	Control	1.1	0.969	0.811	1.291	1.354
	<i>T statistic</i>	-0.2	0.43	-0.47	0.72	-0.27
Quality of life index	Treatment	4.4	3.15	3.1567	3.369	3.3695
	Control	4.1	3.26	3.211	3.3869	3.3608
	<i>T statistic</i>	-0.2	0.43	-0.47	0.72	0.04
Receive remittances (%)	Treatment	8.4 %	9.5 %	9.5 %	14.8 %	14.8 %
	Control	6.3 %	11.2 %	9.5 %	19.6 %	16.1 %
	<i>T statistic</i>	-0.2	0.43	-0.47	0.72	-0.26
Observations (N)	Treatment	239	241	241	230	230
	Control	140	213	230	213	226

Source: Author's estimation with 2014 survey data.

Table A2. Summary of synergies, Comparison 1. A vs C. – Value Chains

Area	Indicator	Gender	Group ^{1/}		Impacts ^{2/}			
			Treatment RD+CSR	Control RD	Impact	Standard error	T-statistic	
Production	Introduced new crops or animal, %	Total	0.197	0.046	0.151	0.068	2.24	**
		Mujeres	0.225	0.075	0.150	0.102	1.48	
		Hombres	0.176	0.056	0.120	0.146	0.82	
Income proxy	Asset index	Total	9.302	9.112	0.190	0.855	0.22	
		Mujeres	9.120	8.390	0.730	1.016	0.72	
		Hombres	9.432	11.248	-1.816	1.581	-1.15	
	Lack of diet variety, %	Total	0.899	0.977	-0.078	0.065	-1.19	
		Mujeres	0.849	0.957	-0.108	0.067	-1.61	
		Hombres	0.936	0.928	0.008	0.130	0.06	
Financial inclusion	Have savings account or formal credit, %	Total	0.404	0.417	-0.013	0.122	-0.11	
		Mujeres	0.355	0.376	-0.022	0.151	-0.14	
		Hombres	0.440	0.720	-0.280	0.223	-1.26	
Participation in associations	Productive, %	Total	0.174	0.252	-0.078	0.106	-0.74	
		Mujeres	0.194	0.204	-0.011	0.128	-0.08	
		Hombres	0.160	0.176	-0.016	0.166	-0.10	
	Community, %	Total	0.491	0.445	0.046	0.118	0.39	
		Mujeres	0.581	0.355	0.226	0.147	1.54	
		Hombres	0.424	0.200	0.224	0.217	1.03	
	Productive or community, %	Total	0.592	0.688	-0.096	0.120	-0.8	
		Mujeres	0.688	0.538	0.150	0.152	0.99	
		Hombres	0.520	0.368	0.152	0.223	0.68	
Empowerment	Empowerment index	Total	0.757	0.749	0.008	0.047	0.17	
		Mujeres	0.713	0.772	-0.060	0.056	-1.06	
		Hombres	0.789	0.748	0.041	0.081	0.51	
	Empowerment, Domain 1: production	Total	0.821	0.791	0.030	0.088	0.34	
		Mujeres	0.651	0.871	-0.220	0.115	-1.92	*
		Hombres	0.948	0.924	0.024	0.156	0.15	
	Empowerment, Domain 2: resources	Total	0.667	0.638	0.029	0.067	0.43	
		Mujeres	0.516	0.695	-0.179	0.102	-1.75	
		Hombres	0.779	0.861	-0.083	0.082	-1.01	
	Empowerment, Domain 3: income	Total	0.892	0.915	-0.023	0.077	-0.06	
		Mujeres	0.860	0.968	-0.107	0.064	-1.67	
		Hombres	0.916	0.876	0.040	0.159	0.25	
	Empowerment, Domain 4: leadership	Total	0.711	0.633	0.078	0.082	0.95	
		Mujeres	0.742	0.629	0.113	0.100	1.12	
		Hombres	0.688	0.592	0.096	0.152	0.63	
Empowerment, Domain 5: time (satisfaction)	Total	0.693	0.766	-0.073	0.105	-0.70		
	Mujeres	0.796	0.699	0.097	0.140	0.69		
	Hombres	0.616	0.488	0.128	0.191	0.67		

1/ Impacts estimated by linear regression

* Indicated coefficient significant to the 0.1, ** significant to the 0.05 level and *** significant to the 0.01 level.

Source: Author's estimation with 2014 survey data.

Table A3. Summary of synergies, Comparison 1. A vs C – Food Security

Area	Indicator	Gender	Group ^{1/}		Impacts ^{2/}		T-statistic	
			Treatment RD+CSR	Control RD	Impact	Standard error		
Production	Introduced new crops or animal, %	Total	0.163	0.174	-0.011	0.059	-0.2	
		Mujeres	0.150	0.243	-0.093	0.099	-0.94	
		Hombres	0.176	0.157	0.019	0.070	0.26	
Income proxy	Asset index	Total	7.900	8.500	-0.600	0.447	-1.35	
		Mujeres	7.940	8.901	-0.961	0.694	-1.38	
		Hombres	7.815	8.555	-0.740	0.685	-1.08	
	Lack of diet variety, %	Total	0.898	0.856	0.042	0.048	0.88	
		Mujeres	0.888	0.813	0.075	0.090	0.83	
		Hombres	0.907	0.917	-0.009	0.066	-0.14	
Financial inclusion	Have savings account or formal credit, %	Total	0.237	0.144	0.093	0.053	1.75	*
		Mujeres	0.215	0.075	0.140	0.084	1.67	
		Hombres	0.259	0.093	0.167	0.077	2.17	**
Participation in associations	Productive, %	Total	0.042	0.005	0.037	0.019	1.96	**
		Mujeres	0.047	0.000	0.047	0.020	2.28	**
		Hombres	0.037	0.019	0.019	0.040	0.46	
	Community, %	Total	0.256	0.265	-0.009	0.066	-0.009	
		Mujeres	0.271	0.196	0.075	0.106	0.71	
		Hombres	0.241	0.111	0.130	0.130	1.58	
	Productive or community, %	Total	0.279	0.265	0.014	0.067	0.21	
		Mujeres	0.290	0.196	0.093	0.106	0.88	
		Hombres	0.269	0.120	0.148	0.086	1.73	*
Empowerment	Empowerment index	Total	0.672	0.699	-0.027	0.032	-0.85	
		Mujeres	0.583	0.615	-0.032	0.056	-0.56	
		Hombres	0.759	0.714	0.045	0.031	1.45	
	Empowerment, Domain 1: production	Total	0.728	0.745	-0.017	0.058	-0.3	
		Mujeres	0.491	0.561	-0.070	0.099	-0.71	
		Hombres	0.963	0.861	0.102	0.053	1.99	**
	Empowerment, Domain 2: resources	Total	0.563	0.605	-0.042	0.044	-0.95	
		Mujeres	0.411	0.461	-0.050	0.082	-0.61	
		Hombres	0.713	0.590	0.123	0.045	2.77	**
	Empowerment, Domain 3: income	Total	0.884	0.863	0.021	0.048	0.43	
		Mujeres	0.827	0.785	0.042	0.089	0.47	
		Hombres	0.940	0.963	-0.023	0.042	-0.55	
	Empowerment, Domain 4: leadership	Total	0.495	0.544	-0.049	0.045	-1.09	
		Mujeres	0.477	0.472	0.005	0.078	0.06	
		Hombres	0.514	0.472	0.042	0.054	0.77	
Empowerment, Domain 5: time (satisfaction)	Total	0.688	0.737	-0.049	0.066	-0.74		
	Mujeres	0.710	0.794	-0.084	0.106	-0.79		
	Hombres	0.667	0.685	-0.019	0.098	-0.19		

1/ Impacts estimated by linear regression

* Indicated coefficient significant to the 0.1, ** significant to the 0.05 level and *** significant to the 0.01 level.

Source: Author's estimation with 2014 survey data.

Table A4. Summary of synergies, Comparison 2. AC vs C – Food Security

Area	Indicator	Gender	Group ^{1/}		Impacts ^{2/}		
			Treatment RD+CSR	Control RD	Impact	Standard error	T-statistic
Production	Introduced new crops or animal, %	Both	0.175	0.160	0.015	0.052	0.27
		Female	0.195	0.244	-0.049	0.113	-0.43
		Male	0.115	0.115	0.000	0.078	0.0
Income proxy	Asset index	Both	8.446	8.815	-0.369	0.410	-0.9
		Female	7.500	8.012	-0.512	0.771	-0.66
		Male	0.825	8.250	-7.425	0.680	-0.01
	Lack of diet variety, %	Both	0.920	0.873	0.047	0.039	1.22
		Female	0.976	0.854	0.122	0.074	1.64
		Male	0.942	0.904	0.039	0.058	0.67
Financial inclusion	Have savings account or formal credit, %	Both	0.222	0.151	0.071	0.051	1.38
		Female	0.171	0.073	0.098	0.086	1.14
		Male	0.192	0.154	0.039	0.085	0.45
Participation in associations	Productive, %	Both	0.028	0.038	-0.010	0.022	-0.42
		Female	0.000	0.024	-0.024	0.037	-0.66
		Male	0.038	0.038	0.000	0.039	0.0
	Community, %	Both	0.212	0.259	-0.047	0.059	-0.80
		Female	0.146	0.122	0.024	0.095	0.26
		Male	0.173	0.288	-0.115	0.099	-1.16
	Productive or community, %	Both	0.231	0.288	-0.057	0.060	-0.94
		Female	0.146	0.146	0.000	0.100	0.00
		Male	0.212	0.327	-0.115	0.103	-1.12
Empowerment	Empowerment index	Both	0.660	0.691	-0.031	0.039	-0.79
		Female	0.624	0.598	0.026	0.044	0.60
		Male	0.723	0.768	-0.045	0.035	-1.28
	Empowerment, Domain 1: production	Both	0.769	0.745	0.024	0.071	0.34
		Female	0.633	0.471	0.162	0.080	2.03
		Male	0.913	0.942	-0.029	0.052	-0.55
	Empowerment, Domain 2: resources	Both	0.570	0.559	0.011	0.051	0.21
		Female	0.488	0.545	-0.057	0.080	-0.71
		Male	0.635	0.686	-0.051	0.045	-1.13
	Empowerment, Domain 3: income	Both	0.882	0.860	0.021	0.065	0.33
		Female	0.854	0.744	0.110	0.100	1.09
		Male	0.904	0.962	-0.058	0.052	-1.12
	Empowerment, Domain 4: leadership	Both	0.382	0.478	-0.097	0.057	-1.70
		Female	0.341	0.439	-0.098	0.076	-1.29
		Male	0.413	0.519	-0.106	0.069	-1.53
Empowerment, Domain 5: time (satisfaction)	Both	0.699	0.812	-0.113	0.072	-1.56	
	Female	0.634	0.805	-0.171	0.103	-1.65	
	Male	0.750	0.731	0.019	0.099	0.2	

1/ Impacts estimated by linear regression

* Indicated coefficient significant to the 0.1, ** significant to the 0.05 level and *** significant to the 0.01 level.

Source: Author's estimation with 2014 survey data.

Table A5. Summary of synergies, Comparison 4. AC vs BD – Food Security

Area	Indicator	Gender	Group ^{1/}		Impacts ^{2/}		
			Treatment RD+CSR	Control RD	Impact	Standard error	T-statistic
Production	Introduced new crops or animal, percent	Both	0.175	0.170	0.005	0.055	0.09
		Female	0.239	0.193	0.046	0.073	0.63
		Male	0.107	0.165	-0.058	0.073	-0.8
Income proxy	Asset index	Both	8.446	7.881	0.565	0.330	1.71 *
		Female	8.124	7.546	0.578	0.648	0.89
		Male	8.786	7.908	0.879	0.666	1.32
	Lack of diet variety, percent	Both	0.920	0.960	-0.040	0.030	-1.33
		Female	0.917	0.963	-0.046	0.037	-1.25
		Male	0.922	0.932	-0.010	0.046	-0.21
Financial inclusion	Have savings account or formal credit, percent	Both	0.222	0.146	0.076	0.048	1.57
		Female	0.174	0.147	0.028	0.061	0.45
		Male	0.272	0.141	0.131	0.080	1.65
Participation in associations	Productive, percent	Both	0.028	0.024	0.005	0.020	0.23
		Female	0.009	0.009	0.000	0.020	0
		Male	0.049	0.029	0.019	0.034	0.57
	Community, percent	Both	0.212	0.170	0.042	0.056	0.75
		Female	0.183	0.128	0.055	0.063	0.87
		Male	0.243	0.311	-0.068	0.095	-0.72
	Productive or community, percent	Both	0.231	0.184	0.047	0.058	0.81
		Female	0.183	0.138	0.046	0.065	0.71
		Male	0.243	0.311	-0.068	0.095	-0.72
Empowerment	Empowerment index	Both	0.678	0.673	0.005	0.027	0.19
		Female	0.611	0.591	0.020	0.037	0.62
		Male	0.746	0.751	-0.005	0.037	-0.13
	Empowerment, Domain 1: production	Both	0.771	0.772	-0.001	0.049	-0.02
		Female	0.628	0.505	0.124	0.074	1.68
		Male	0.922	0.937	-0.015	0.058	-0.25
	Empowerment, Domain 2: resources	Both	0.558	0.557	0.002	0.041	0.04
		Female	0.474	0.410	0.064	0.060	1.08
		Male	0.647	0.655	-0.008	0.050	-0.16
	Empowerment, Domain 3: income	Both	0.884	0.829	0.055	0.045	1.24
		Female	0.872	0.757	0.115	0.070	1.64
		Male	0.898	0.888	0.010	0.070	0.14
	Empowerment, Domain 4: leadership	Both	0.446	0.467	-0.021	0.039	-0.55
		Female	0.399	0.440	-0.041	0.054	-0.77
		Male	0.495	0.464	0.032	0.062	0.51
Empowerment, Domain 5: time (satisfaction)	Both	0.731	0.741	-0.009	0.056	-0.17	
	Female	0.697	0.844	-0.147	0.074	-1.99	
	Male	0.767	0.811	-0.044	0.075	-0.58	

1/ Impacts estimated by linear regression

* Indicated coefficient significant to the 0.1, ** significant to the 0.05 level and *** significant to the 0.01 level.

Source: Author's estimation with 2014 survey data.