



→ For the inhabitants of the rural areas of Barrancabermeja, located in the Ciénaga de San Silvestre, the possibilities of economic sustenance are limited to fishing. There are fewer and fewer fish each day due to the deterioration and invasion of the waterways.





→ Benedicto Rodríguez gets up at 5:00 a.m. to extract honey from the beehives he has on his farm in Simijaca. In the afternoon, he goes to town and sells it.

CHAPTER 8

WHAT HAPPENED IN THE RURAL AREAS BETWEEN 2010 AND 2013: CONTRIBUTION TO LAND ACCESS, NEGATIVE SHOCKS AND STATE PROGRAMS GEARED TOWARDS THE WELL-BEING OF RURAL HOUSEHOLDS

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→ Rodrigo Ballesteros changed his village life for farming. In the photo, he is picking his zucchini harvest with his son Cristian, in Buena Vista (Boyacá).

→ 8.1. INTRODUCTION

The country's rural areas are home to a little less than 25% of the Colombian population, but to a higher percentage of the poor (32%) and extremely poor (49,2%) populations.¹ If it is true that the incidence of poverty in the country has fallen since 1997, the reduction has been more accelerated in the urban areas of Colombia in such a way that, in 2013, the incidence of urban poverty was 26.9%, while that of the rural population was 42.8%. This urban-rural gap is not, however, a recent phenomenon. Greater rural poverty has been a constant in the country.

The disproportional presence of the poor in rural areas and the slow reduction of rural poverty could be a consequence of diverse factors. In the first place, State presence in rural areas is weak and in some areas, non-existent. This limits the provision of social services and public goods, which are fundamental for rural income generation and for assuring greater future incomes.

1. Source: www.dane.gov.co.

In the second place, the armed conflict takes place to a greater extent in the country's rural areas, meaning that the rural population has suffered the rigors of the conflict to a greater proportion. The displaced population is primarily rural, land dispossession as a consequence of the armed conflict happens in rural regions, and the inhabitants who have not been displaced face high levels of victimization (Ibáñez, 2008).

In the third place, land access and the concentration of rural property in Colombia limit the opportunities of the rural population. Only 41.6% of the population has access to land through formal or informal tenure agreements. Moreover, 47.7% of property owners do not have formal property deeds, which in turn eases eviction from lands and reduces the incentives to invest in the lots. In 2012, the Gini index for rural property reached 0.87 (Gáfaró, Ibáñez and Zarruk, 2012).

In the fourth place, rural producers in general are subject to a greater risk. Climatic shocks, damage to their harvests and the high variation in agricultural prices are some of the usual risks that agricultural and livestock workers face. During 2010 and 2011, the excessive rains brought about by the phenomenon known as La Niña affected a number of the country's rural regions. Moreover, the fall and revaluation of agricultural prices reduced the profitability of various crops, which in turn caused the coffee growers and peasant farmers' strikes in 2013.

The aim of this chapter is to analyze the changes in the well-being of the ELCA rural households and to explore the possible causes of those changes. In particular, an approximation of household welfare was made through the observation of aggregate consumption. In this way, we examined the changes in household consumption and their relationship to land access, state programs and credit markets. Moreover, the incidence of negative shocks on household consumption was examined. Before detailing the results, we present a short summary of the main events in the four micro-regions.

8.2. THE FOUR ELCA MICRO-REGIONS: MAIN EVENTS BETWEEN 2010 AND 2013

The country's rural regions went through three common phenomena during 2010 and 2013. In the first place, the winter spell, which began in 2010, had a harsh impact on the rural regions, with the exception of the Coffee Region and the Center-East part of the country. In the second place, the fall in agricultural production and in some prices deteriorated the market conditions and provoked protests and strikes to demand State aid. In the third place, the violence, despite being reduced, still had a strong impact in the rural areas and in some cases changed from paramilitary violence to criminal violence, as well as the continued presence of guer-



→ Eduard Álvarez is a farmer in Sabanalarga, Chinú. He does not get any relief from the harsh climate in Córdoba, so he avoids working under direct sunlight at midday

rilla groups. These phenomena are examined for each region in the following paragraphs.

8.2.1. MID-ATLANTIC

The winter spell had an important impact on the departments of Córdoba and Sucre. In June 2011, the areas most affected by flooding corresponded to 11.2% of the area under study in the department of Sucre and 5.7% in Córdoba. The floods particularly affected the ground used for crops, pastures and forests (Ideam, 2011), implying a reduction in agricultural and livestock production in these departments.



→ Raising and selling pigs is an extra source of income for the González Valenzuela family in Puente Nacional. The household head is a farmer.

The participation of farmers in Córdoba and Sucre—traditionally known for peasant farmer activity, and an important history of protests and agrarian organization—was considerably low in the national agrarian strike in mid-2013. This could be interpreted as one of the effects of the violence in this region that obliged its population to withdraw into their homes.

Violence in the mid-Atlantic region increased after the paramilitary demobilizations. Currently, criminal groups constitute the biggest risk for security in the region. In Chinú and Sahagún, there have been reports of attacks against various sectors of the population, commerce and homes (Red Acción Eje Cafetero, 2012a), as well as against indigenous communities (Zenú ethnic group) who have reservations in the rural areas (VerdadAbierta.com 2014a). According to the Human Rights Observa-

2. Who, at least until the middle of 2012, organized kidnappings and extortions in the municipality of Ortega.

tory and the UN Office for the Coordination of Humanitarian Affairs (OCHA), there were massacres in Ciénaga de Oro in 2010; in Sahagún on November 20, 2010; and in Sampués (Sucre), threats to the inhabitants and an attack on the house of a civic leader were reported on January 14, 2104.

8.2.2. COFFEE REGION

The Coffee Region witnessed a number of strikes over the three years. In October 2012, Quindío and Risaralda joined the national march to protest against the coffee crisis (Red Acción Eje Cafetero, 2012b). In February 2013, they were the focus of the coffee growers' strike (Red Acción Eje Cafetero, 2013), and after that, the strike in September 2013. The recurring lack of State presence in the rural area and the low prices for coffee, together with the revaluation of the peso to the dollar, were the main causes of the strike.

Violence in the Coffee Region was caused mainly by gangs of delinquents associated with drug trafficking. In the municipalities of Risaralda and Quindío, the Cordillera and Los Rolos gangs have been particularly violent (Caracol, 2011). The violence in the Pacific region has also generated migration towards the Valle del Cauca and the Coffee Region. The worsening of this situation meant that heart attacks and violence were the principal causes of mortality in Risaralda in November 2013 (El Diario del Otún, 2013)

8.2.3. CENTER-EAST

The national agrarian strike, despite starting timidly in Tolima (Redacción El Nuevo Día, 2013), soon intensified because of the road blockages and confrontations with the public forces, especially in the small rural settlement of Castilla (Coyaima), located near Purificación, Ortega and Natagaima (Equipo Ecos de Combeima, 2013). Some organizations in Tolima, such as the National Agricultural and Livestock Roundtable (Mesa Nacional Agropecuaria de Interlocución) that participated in the strike, group together small rented or sharecropped producers.

After the paramilitary demobilization, various criminal groups that shared territory with the FARC sprang up. Among them, it is worth mentioning Los Rastrojos, the Pijao Block (presumably dismantled in 2009), the Conquistadores del Tolima² and other armed groups (VerdadAbierta.com, 2012). The FARC were the protagonists of various violent incidents in Ortega during 2011 and in Natagaima between 2010 and 2013.

8.2.4. CUNDIBOYACÁ

The winter spell had an important impact in Santander, Cundinamarca and Boyacá, especially in two municipalities in the Cundiboyacá region. These departments suffered important losses of transitory and permanent crops which affected family agriculture as well as cattle ranching (Cepal, 2012).

Even though the region has an important history of paramilitary activity, (VerdadAbierta.com 2014b), since 2012, one of the main problems of the violence in Boyacá is attributed to the rivalry between the emerald workers that Víctor Carranza left behind (6am Hoy por Hoy, 2013). This is a silent war being waged in the region, which was only brought to light with the attack against Pedro Orejas in Pau-na. This rivalry has affected municipalities close to Cundinamarca such as Susa and Simijaca. Other violent activities include the massacre reported by the OCHA in Moniquirá (near Puente Nacional) on December 31, 2011.

8.3. CHANGES IN HOUSEHOLD WELL-BEING BETWEEN 2010 AND 2013: EXPLORING SOME POSSIBLE CAUSES

This section analyses the evolution of consumption and land use between 2010 and 2013 and explores possible causes that brought changes in both dimensions. In order to evaluate changes in terms of well-being and their possible causes, the ELCA collected detailed information about household consumption and their main sources of income. Household consumption can be financed by household income, by production on the plot of land (self-consumption) or by financial transfers between families, friends or the State.

Table 8.1 presents the changes in annual aggregate consumption by household between 2010 and 2013, as well as the changes in their components of self-consumption and transfers. The purpose of this chapter is to evaluate how well-being changes in different circumstances and to identify the mechanisms adopted by the households for mitigating the adverse effects of these shocks. Finally, we examine aggregate consumption for household well-being and consumption supplied by the production of the plot of land (self-consumption) or by transfers by families, friends or the State. Consumption based on purchases is the major component of aggregate consumption, it is not analyzed separately, and is reported in 2013 prices. For the four micro-regions, real average consumption showed an increase of 12.6% in three years; that is to say, it passed from COP\$7.9 million (COP\$1.9 million per capita) in 2010 to COP\$8.9 million (COP\$2.3 million per capita) in 2013. The Center-East region reported the biggest growth, 20.6%, while the Coffee Region showed smaller growth, 6%. The low growth in the Coffee Region can be associated with its weak productive performance, which also contributed to the protests of the coffee-growers' strike.

Self-consumption reflects the capacity of households for producing food on their own plots of land. An increase in self-consumption can be positive when it is the result of a bigger agricultural production on the plot of land, either for the market sales or for household consumption. On the other hand, an increase in violence or major isolation

from the markets can make the households increase their production of basic crops in order to protect food consumption, thus converting this into a survival strategy, denoting negative dynamics. Self-consumption increased in three of the four micro-regions and the changes differ significantly between regions. Self-consumption in the mid-Atlantic region and the Center-East region grew by 38.2 % and 95%, respectively.

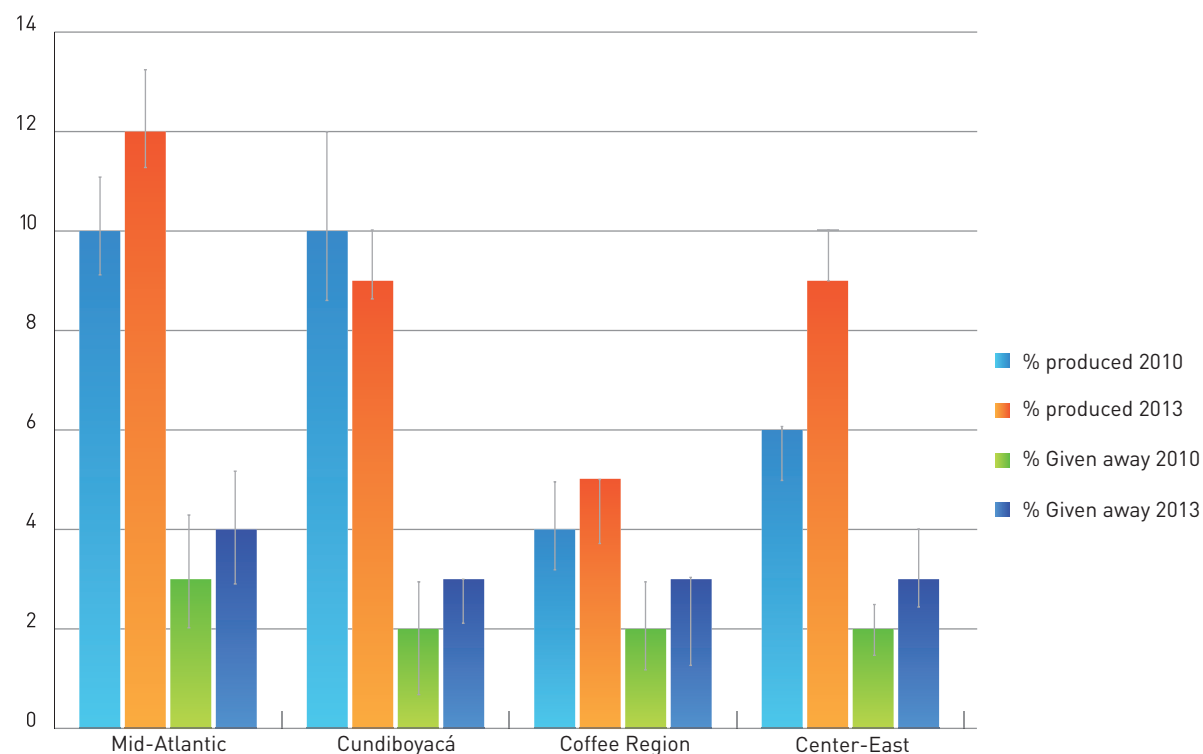
Transfers and aid from families, friends, and State organizations contributed to the financing of household consumption. It is expected for transfers to increase in times of crisis and negative shocks in the household, and consumption coming from transfers increased in the Cundiboyacá and the Center-East regions.

The bad winter spell in 2010 seemed to have had a significant impact on the rural households in the Cundiboyacá region. Self-consumption contracted by 5.8%, while rising in the other three regions. Moreover, transfers increased in this region by 53.5%. It is possible that the contraction in agricultural and livestock production, and in the household income obliged households to resort to support from family, friends and government programs in order to finance household consumption. Changes in the self-consumption, participation, and in the transfers of aggregate household consumption denote a major dependence on these sources of financing. (See Figure 8.1). This phenomenon is particularly strong for the mid-Atlantic

and Center-East regions where self-consumption finances 12% and 9% of total consumption, respectively. Transfers as a source of financing increased in all the regions, financing between 3% and 4% of total consumption.

Transfers and aid from families, friends, and State organizations contributed to the financing of household consumption. It is expected for transfers to increase in times of crisis and negative shocks in the household.

FIGURE 8.1.
PARTICIPATION OF SELF-CONSUMPTION AND TRANSFERS IN HOUSEHOLD CONSUMPTION BY YEAR AND REGION (PERCENTAGE).



Source: Authors' calculations based on EICA 2010 and 2013

The total aggregate consumption refers to the total number of non-durable goods that a household reported having consumed. Self-consumption is whatever is produced on the plots of land and transfers refer to that which is received from other people. For the rural areas, the methodology that measures the households' well-being through aggregate consumption is preferred to that which measures this well-being through wage. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions. A 95% confidence interval is reported.

TABLE 8.1.
TOTAL AGGREGATE CONSUMPTION (IN 2013 PESOS).

Region	Total				Self-consumption				Transfers			
	Mean (sd)		Changes		Mean (sd)		Changes		Mean (sd)		Changes	
	2010	2013	Change	Signif.	2010	2013	Change	Signif.	2010	2013	Change	Signif.
Mid-Atlantic	8.271.290	9.095.288	9,96%	***	725.138	1.001.951	38,17%	***	238.110	286.667	20,39%	***
	(5,390,514)	(4,892,878)			(754,811)	(863,646)			(550,833)	(465,105)		
Cundiboyacá	8.406.462	9.493.311	12,93%	***	811.306	764.548	-5,76%	**	125.497	192.628	53,49%	***
	(4,575,821)	(5,577,672)			(897,672)	(725,253)			(373,840)	(425,278)		
Coffee Region	8.242.560	8.740.511	6,04%	***	336.979	404.922	20,16%	***	160.348	211.300	31,78%	***
	(4,647,421)	(5,022,912)			(478,217)	(501,325)			(312,363)	(441,792)		
Center-East	6.762.655	8.153.514	20,57%	***	360.327	702.662	95,01%	***	89.636	222.243	147,94%	***
	(3,580,676)	(4,996,775)			(463,700)	(692,412)			(324,994)	(476,910)		
Total	7.876.574	8.865.907	12,56%	***	586.599	784.995	33,82%	***	162.575	238.635	46,78%	***
	(4,720,011)	(4,929,737)			(715,587)	(458,703)			(434,986)	(425,881)		

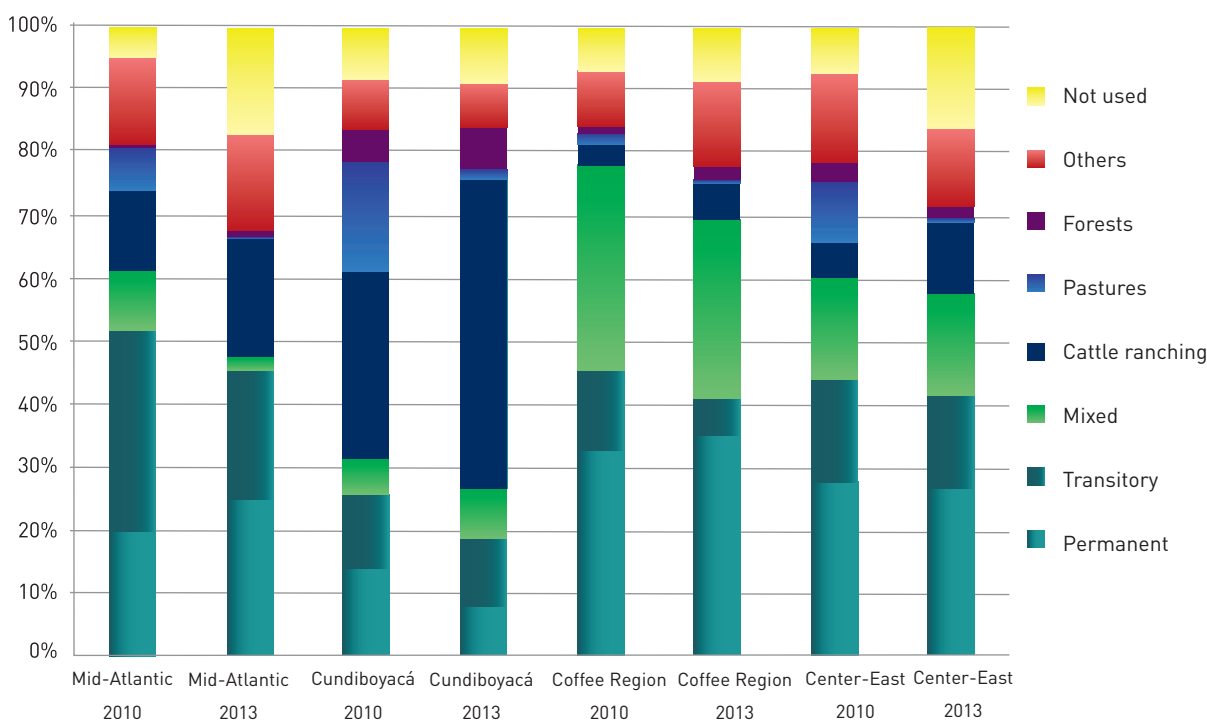
Source: Authors' calculations based on ELCA 2010 and 2013

* Significant at 10% ** Significant at 5% *** Significant at 1%.

The total aggregate consumption refers to the total number of non-durable goods that a household reported having consumed. Self-consumption is whatever is produced on the plots of land and transfers refer to that which is received from other people. For the rural areas, the methodology that measures the households' well-being through aggregate consumption is preferred to that which measures this well-being through wage. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

As mentioned earlier, if the increases in self-consumption are accompanied by greater agricultural production, this can be seen as a result of positive household dynamics. With the aim of determining whether agricultural and livestock production increased, Figure 8.2 shows the changes in land use between 2010 and 2013.³ In the mid-Atlantic and Center-East regions—which reported the biggest increase in self-consumption—the percentage of unexploited land increased significantly, reaching levels of 20% in both regions. The biggest percentage of unused land can result from negative dynamics that obligate households to retract from the markets and protect their food consumption or from positive dynamics due to a bigger acquisition of new, unexploited lands. An important increase in land use relating to cattle ranching at the expense of transitory, and mixed crops was shown in the four regions, and the expense of permanent crops in the Cundiboyacá region. Even if not profitable on a small scale, cattle ranching is an easy way to capitalize when faced with negative shocks, providing daily cash flow and less price volatility with respect to the agricultural goods.

FIGURE 8.2.
LAND USE DISTRIBUTION BY YEAR AND REGION
(PERCENTAGE OF TOTAL AREA OF PLOTS).



Source: Authors' calculations based on ELCA 2010 and 2013

The total amount of land belonging to the household was tallied in terms of each type of use (this could be divided up into several plots of land), this was used to obtain the proportion of each type of use over the total of the household's land. The table presents the averages of these types of uses by household, region and year. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions

3. Permanent crops are those that are planted once but that can be harvested more than once. An example of this is the coffee plant. Transitory crops have a planting and harvesting cycle of less than a year and, in contrast to permanent crops, after being harvested, they have to be planted again. For example, potatoes and carrots. Mixed crops include a variety of crops, both permanent and transitory, in the same area. For example shade-grown coffee. Livestock farming produces meat, milk or leather. Grass is planted for animals to feed on, and forests, for example, for timber production.

The changes in consumption, the sources of financing, and land use respond to diverse dynamics that presumably affect households. Land access, the incidence of negative shocks, production decisions and coverage of State programs could be some of these factors. The following paragraphs evaluate each one of these dynamics and identify their relationship to consumption changes.

8.3.1. LAND MARKETS AND LOST LANDS

A preliminary analysis of the changes in the size of the plots of land seems to suggest that the land markets are quite static and that little happened between 2010 and 2013. The average size of ELCA household plots between 2010 and 2013 is presented in Table 8.2. The changes in the average size of the plots for the mid-Atlantic and Cundiboyacá regions are not statistically significant. The average size of plots in the Coffee Region diminished by a total of 10.7%, and in the Center-East region increased by 44.4%. Given the small sizes of the plots, these changes are not particularly significant: 0.25 ha for the Coffee Region, and 1.1 ha for the Center-East region.

TABLE 8.2.
SIZE OF THE PLOTS OF LAND BY HOUSEHOLD (AVERAGE IN HECTARES).

	2010	2013		
Region	Size (sd)		Change	Significance
Mid-Atlantic	3,04	3,12	2,6%	
	(6.11)	(7.02)		
Cundiboyacá	3,17	2,97	-6,3%	
	(5.15)	(4.16)		
Coffee Region	2,33	2,08	-10,7%	*
	(3.44)	(5.04)		
Center-East	2,5	3,61	44,4%	***
	(4.78)	(8.59)		

Source: Authors' calculations based on ELCA 2010 and 2013

* Significant at 10% ** Significant at 5% *** Significant at 1%.

The size of the plots of land correspond to the reported average. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions

Government aid for land purchase is scarce in the ELCA sample: only 0.6% benefitted from subsidies for financing land purchase through the agrarian reform programs

The small changes in the average size of plots of land hide the big volatility in the land market in all the regions (see Table 8.3). Almost 9.1% of households acquired lands between 2010 and 2013, particularly in the mid-Atlantic and Center-East regions. This acquisition of lands in these regions could explain the increase in the percentage of unexploited lands, which was discussed in the previous section. The higher percentage of unexploited lands in these regions could be the result of larger plots of land that have not been exploited. A share of 10.2% of the households that held land under informal tenure agreements were formalized, thus improving the judicial security of the households and generating incentives for bigger investment. Lastly, 2.6% of the households sold lands and 2.4% lost lands. The loss of lands was especially high in the Center-East region.

TABLE 8.3.

CHANGES IN THE TENURE OF PLOTS OF LAND BETWEEN 2010 AND 2013
(PERCENTAGE OF HOUSEHOLDS).

	Mid-Atlantic	Cundiboyacá	Coffee Region	Center-East	Total
Land acquisition	10,1	7,9	6,7	9,8	9,1
Formalized	7	10,7	10,7	13,1	10,2
Sold	3,5	1,8	3,1	1,7	2,6
Lost	0,4	1,9	2,4	5,4	2,4

Source: Authors' calculations based on ELCA 2010 and 2013

The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions

Market mechanisms, despite playing an important role in land access, are not the principal mechanisms. Households acquired new lands principally through inheritance (47.6%) and purchases (42.5%). Illegal settling and occupation of lands (4.3%) persists, nonetheless, as a more effective mechanism for land access than the government adjudication programs. Land transactions are still available in segmented markets so that the majority of small owners buy land from other small landowners. Family members, friends or acquaintances,

made almost 95% of all land purchases. Moreover, resorting to financial markets does not appear to be a possibility for many households. Table 8.4 indicates that almost 75% of households finance the purchase of lands outside the financial markets. This could be with their own resources, the sale of properties or loans from family members or friends. Government aid for land purchase is scarce in the ELCA sample: only 0.6% benefitted from subsidies for financing land purchase through the agrarian reform programs.

TABLE 8.4.
CHANGES IN THE TENURE OF PLOTS OF LAND
BETWEEN 2010 AND 2013
(PERCENTAGE OF HOUSEHOLDS).

Financing purchase of land lot	Percentage
Own resources	65,7
Financial entity	18,8
Sold properties	8,2
Family loan	6,4
Private loan	0,4
State subsidy	0,6
Total	100

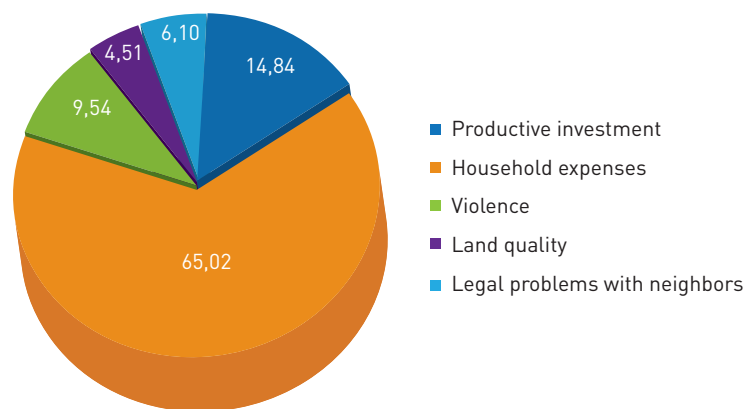
Source: Authors' calculations based on ELCA 2010 and 2013

The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions

Land loss is a consequence of negative shocks on households. Some 88.1% of households lost their lands due to natural disasters, 5.7% to family disputes and 3.5% as a consequence of forced displacement. This loss must have a high impact on the capacity to generate income in these households and ultimately on their well-being.

The reasons behind land sale point to a process of decapitalization of these households in order to finance household expenses. These reasons are outlined in Figure 8.3, which shows that 65% of the households sell land in order to finance the household's immediate needs; that is, they substitute a future income by selling a productive asset to finance present consumption. Only 14.8 % of the households sell land to finance productivity investments. Violence (9.5%) and legal problems with neighbors (6.1%) are other additional negative dynamics that oblige households to sell land.

FIGURE 8.3.
DESTINATION OF RESOURCES OBTAINED FROM THE SALE OF LAND BETWEEN 2010 AND 2013
(PERCENTAGE OF PLOTS OF LAND).



Source: Authors' calculations based on ELCA 2010 and 2013

The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions



→ Delfina Segura had to close her vegetable shop in Facatativá because of low prices. She now works with her husband Carlos in Corabastos.

Four conclusions can be drawn from these results. First, although the average size of the plots of land did not change much, the markets and tenure were fairly dynamic. Second, this dynamism seems to be dictated more by negative phenomena than by a rigorous process of vigorous recuperation in the four micro-regions. Many households sell their lands to cover urgent needs. Natural disasters bring with them land losses and violence continues to be a determining factor in the sale and loss of property. Third, the government's role in access to land is weak: few households benefit from subsidies to acquire lands, while settling and occupa-

tion continue to be the main State mechanism for awarding lands to peasant farmers.

The changes in the formality of land tenure between 2010 and 2013 are shown in Table 8.5.⁴ The sample analyzed in the following paragraphs corresponds to a panel of households in both rounds of the survey. The percentage of landowners increased significantly from 24.9% to 31.2%, pulled along mainly by the mid-Atlantic region. A percentage of the households with informal tenure in 2010 was formalized in 2013, but the formal tenure in 2013 diminished especially in the mid-

Atlantic region. It is probable that the acquisition of new plots of land was carried out informally, perpetuating the high levels of informality: 36.8% for 2013. The informality of the land also remained at similar levels with a reduction of inadvertent informal tenure; that is to say, the households which have an informal property deed that they consider formal due to their lack of knowledge of the necessary legal requirements. The land tenure structure remained relatively unaltered between 2010 and 2013 in spite of the movements within this period.

4. Formal tenure is defined as having public deeds (or resolution of assignment) and property registration at the Public Records Office. Inadvertent informal tenure refers to when owners claim to have formal tenure but the deeds are not duly legalized because of the lack of public deeds or the registration. Self-reported informal tenure does not have the correct deeds and the owners are conscious of the fact. Land workers are those who access land through other types of contracts such share-cropping, renting, antichresis, among others.

TABLE 8.5.
TYPE OF LAND TENURE (PERCENTAGE OF HOUSEHOLDS).

	Mid-Atlantic		Cundiboyacá		Coffee Region		Center-East		Total	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Type of tenure*										
Formal tenure	30,01	21,42	60,82	58,38	50,16	52,74	32,15	35,2	39,91	36,8
Informal tenure (inadvertent)	34,32	27,79	9,82	10,08	16,33	16,3	37,19	27,97	27,65	22,73
Informal tenure (self-reported)	7,56	11,43	9,64	6,67	5,56	3,02	6,77	10,57	7,53	9,25
Land worker/non-owner	28,1	39,36	19,71	24,87	27,95	27,93	23,88	26,26	24,92	31,21
Change of type of tenure**										
Formalized	7		10,7		10,7		13,1		10,2	
Returned to being informal	12,7		11,5		9,4		10,9		11,5	

Source: Authors' calculations based on ELCA 2010 and 2013

*Contains the sample of households that were in both rounds of ELCA, and that reported owning land either in the 2010 round, the 2013 one, or both. ** Contains the sample of households that were in both rounds of ELCA, and which reported owning land in both years. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

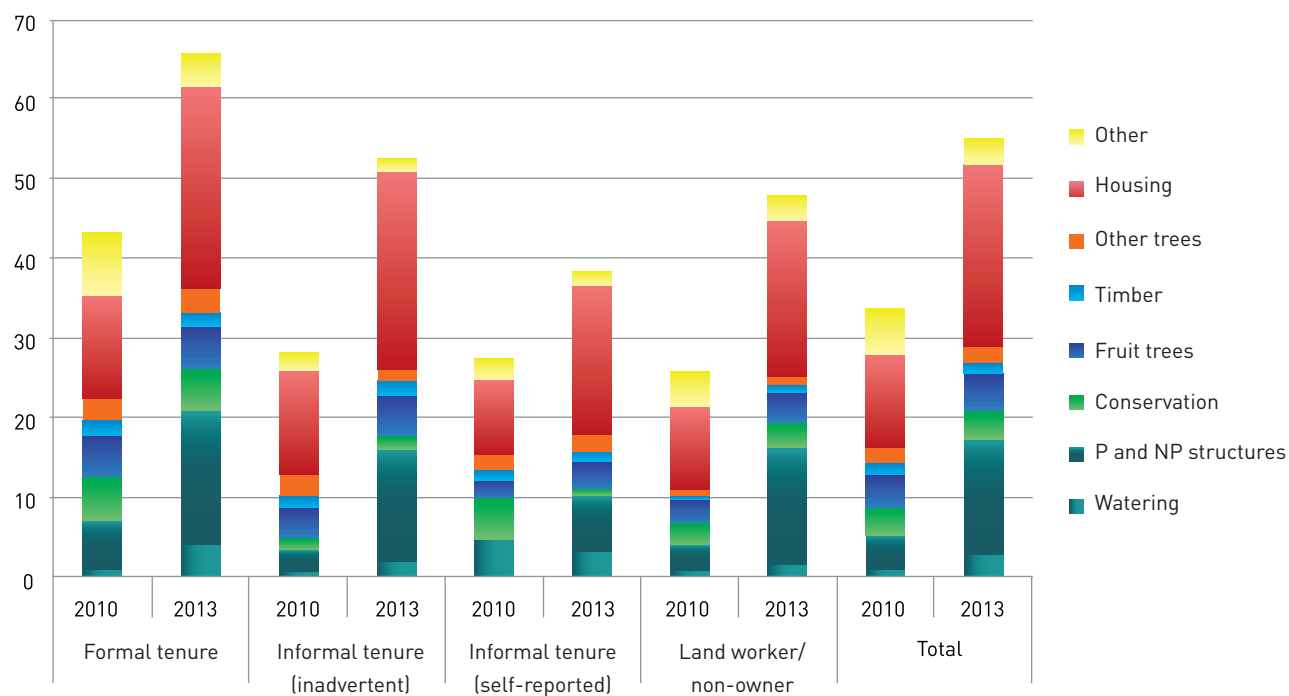
8.3.2. PRODUCTION DECISIONS: CREDIT AND INVESTMENTS

Production decisions in the households can improve agricultural production and household income. Two decisions are examined: access to credit and household investments. Some 49.7% of households had some type of credit in 2013, be it formal or informal. Access to credit was highest for formal owners (53.5%) and land workers (50.4%).

The investment decisions are summarized in Figure 8.4. Total investments for each type of owner over the three years are reported. Household investment grew significantly and in particular for investments in permanent structures and in housing. In 2010, some 27% of households reported at least one investment and in 2013 this figure rose to 42.6%. The principal increase was shown in the investment in permanent and semi-permanent structures, with increases of 4.4% and 14.6%, which improved the productive capacity of the plot of land and increased the long-term household income.

Investments in housing also grew significantly, from 11.8% to 22.8% of households. Increases in investments were higher for informal owners and land workers. However, formal owners invested more, in such a way that one in each of the formal households reported one investment over the three years (2010-2013), while one in every three self-reported informal owners made investments. The formal owners have a high certainty of recovering their investment and ultimately the incentives for investing in their plots of land are higher.

FIGURE 8.4.
INVESTMENT IN HOUSEHOLDS BY TYPE OF
LAND TENURE (PERCENTAGE OF
HOUSEHOLDS).



The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions.

Source: Authors' calculations based on ELCA 2010 and 2013

8.3.3. ACCESS TO STATE PROGRAMS

The offer of State programs in rural areas can be divided into three. First, there are the social programs offered for urban and rural populations. Familias en Acción is the emblematic program, but there are other programs, and their objective is to complement household incomes and to avoid the drastic reduction in consumption and expenditure in education when faced with reductions in their incomes. The second part consists of programs designed specifically for rural areas and that seek to improve the productive capacity of the rural producers and the generation of household incomes. Finally, there are the SENA programs whose goal is to strengthen human capital among the rural population.

Table 8.6 reports the access to these aggregated programs by type of program. This access focuses on welfare programs —among which Familias en

Acción— which complement household incomes. Some 62.9% of households access these types of programs, mainly Familias en Acción. In contrast, only 2.6% of households are beneficiaries of programs that contribute to strengthening autonomous capacity for generating income. All the programs reported in this set have coverage of less than 2% and, in almost all, this is less than 1%, with the exception of Alianzas Productivas. The coverage of SENA programs in rural areas appears to be limited (5.8% of households).

These figures highlight the weakness of State rural development policy, which focuses on assistance and general programs for the Colombian population. These assistance programs, moreover, do not take into account some particular aspects of rural households. Coverage to improve current and future productive capacity and income generation is quite low. The productive and training programs cover less than 10% of the population.

The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions

TABLE 8.6.
ACCESS TO STATE PROGRAMS
(PERCENTAGE OF HOUSEHOLDS)

Household Programs	62,94
Familias en Acción	49,32
Program for senior citizens	12,62
Red Unidos	12,45
ICBF (Colombian Institute for Family Welfare)	14,21
Emergency aid	1,65
Aid for displaced people	2,60
Productive Programs	2,62
Titling vacant lands	0,24
Lands program	0,48
Ley de Víctimas	0,19
Agro ingreso seguro	0,25
Oportunidades rurales	0,19
Alianza productiva	1,61
Park guards	0,11
Other rural program	0,78
Training Programs	5,80
SENA	5,80

Source: Authors' calculations based on ELCA 2010 and 2013

8.3.4. NEGATIVE SHOCKS BETWEEN 2010 AND 2013

The economic literature has amply documented the high incidence of negative shocks for rural households.⁵ Rural households in Colombia are not the exception. Table 8.7 shows the said incidence for the four ELCA micro-regions,⁶ (for a detailed description of shock models, see Cadena and Quintero's analysis in Chapter 3 of this book). Rural households were subject to diverse shocks throughout the three years. The three principal shocks are production shocks (40.6%), health (28%), and natural disasters (25.4%). It is interesting to note that violence continues to be an important shock in three of the four micro-regions. The results reveal a high variation in the types of shock that affect the four micro-regions. The production shocks are particularly high in the mid-Atlantic and Cundiboyacá regions. The incidence of natural disasters is high, presumably due to the bad winter spell in 2010, but the percentage of households affected in the mid-Atlantic region is almost double compared with the other three regions. The incidence of health shocks in the Cundiboyacá region is higher than in the other three regions; this could be the result of its demographic structure.

TABLE 8.7.
RURAL HOUSEHOLDS, WHICH EXPERIENCED SHOCKS OVER THE THREE-YEAR PERIOD
(PERCENTAGE OF HOUSEHOLDS).

Region	Health	Family	Employment	Production	Assets	Violence	Disasters
Mid-Atlantic	29,3	16,5	11,3	44,2	13,8	2	40
Cundiboyacá	35,4	18,8	8,5	50,3	13,4	0,8	13,7
Coffee Region	28,9	18,9	10,4	24,7	16,7	4,8	19,5
Center-East	20,4	18,9	7,2	36,8	14,7	2,3	17,4
Total	28	18	9,5	40,6	14,4	2,2	25,4

Source: Authors' calculations based on ELCA 2010 and 2013

Health shocks include diseases and accidents suffered by members of the households. Family shocks include death or abandonment of any of the members of the households or the separation of spouses. Employment shocks include loss of employment by the spouse or other family member of the household head. Asset shocks involve losing or having to abandon the family home, the closure of family businesses, the loss or cessation of consignments, the loss of farms or plots of land, harvests or livestock. Finally, violent shocks refer to whether those involved were the victims of violence. The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions

5. See among others, Barrett, Carter and Timmer, 2010; Dercon and Christiaensen, 2008; Fafchamps and Lund, 2003; Paxson, 1992; Rosenzweig and Wolping, 1993.

6. Health shocks include diseases and accidents suffered by members of the households. Family shocks include death or abandonment of any of the members of the households or the separation of spouses. Employment shocks include loss of employment by the spouse or other family member of the household head. Asset shocks involve losing or having to abandon the family home, the closure of family businesses, the loss or cessation of consignments, the loss of farms or plots of land, harvests or livestock. Finally, violent shocks refer to whether those involved were the victims of violence.

8.3.5. CHANGES IN CONSUMPTION: THEIR RELATIONSHIP WITH LAND ACCESS, STATE PROGRAMS, SHOCKS AND PRODUCTION DECISIONS

ELCA offers a unique opportunity in Colombia for understanding the dynamics that determine the change in the well-being of rural households. The following paragraphs demonstrate the first approximation by exploring the association between consumption changes and those discussed in sections 8.3.1 to 8.3.4. It is important to highlight that these associations do not suggest causality between the occurrence of a particular phenomenon and the change in consumption. Figure 8.5 presents the relationships between changes in consumption and changes in the phenomena analyzed.

The households appear to have insurance systems that are sufficiently solid to avoid falls in aggregated consumption after a shock. Many of the insurance mechanisms appear to come from informal mechanisms, such as self-consumption and transfers, or from State aid programs. A negative family or employment shock is not related with changes in total consumption. This could be in part determined by transfers received by the families, friends or other institutions in order to mitigate the falls in income. An adverse family or employment shock increases consumption by transfers by between 60.4% and 105.5%,

respectively. At the same time, a violent shock is related with an approximately 93% rise in self-consumption. This confirms similar findings in other countries: households living in the midst of a conflict resort to self-consumption in order to protect the food security of their members. (Bruck, 2004).

Access to land and its formalization are significantly associated with the well-being of the households. The formalization of land tenure is related to an increase of 58.1 % in the total consumption and a 65.5% rise in self-consumption. It is probable that households formalized their plots of land after receiving a bigger income or received a bigger income after formalization. However, the greater production on the plots of land appears to suggest that the households increase production after the formalization of their plots.

Land dynamics are strongly associated with the well-being of households. The acquisition of plots of land is related to a 54% fall in consumption, suggesting that households temporarily restrict consumption in order to accumulate more capital. The opposite happens in the sale of lands. It could be argued that households decide to decapitalize in order to finance their consumption: the sale of land is related to a 98% increase in consumption.

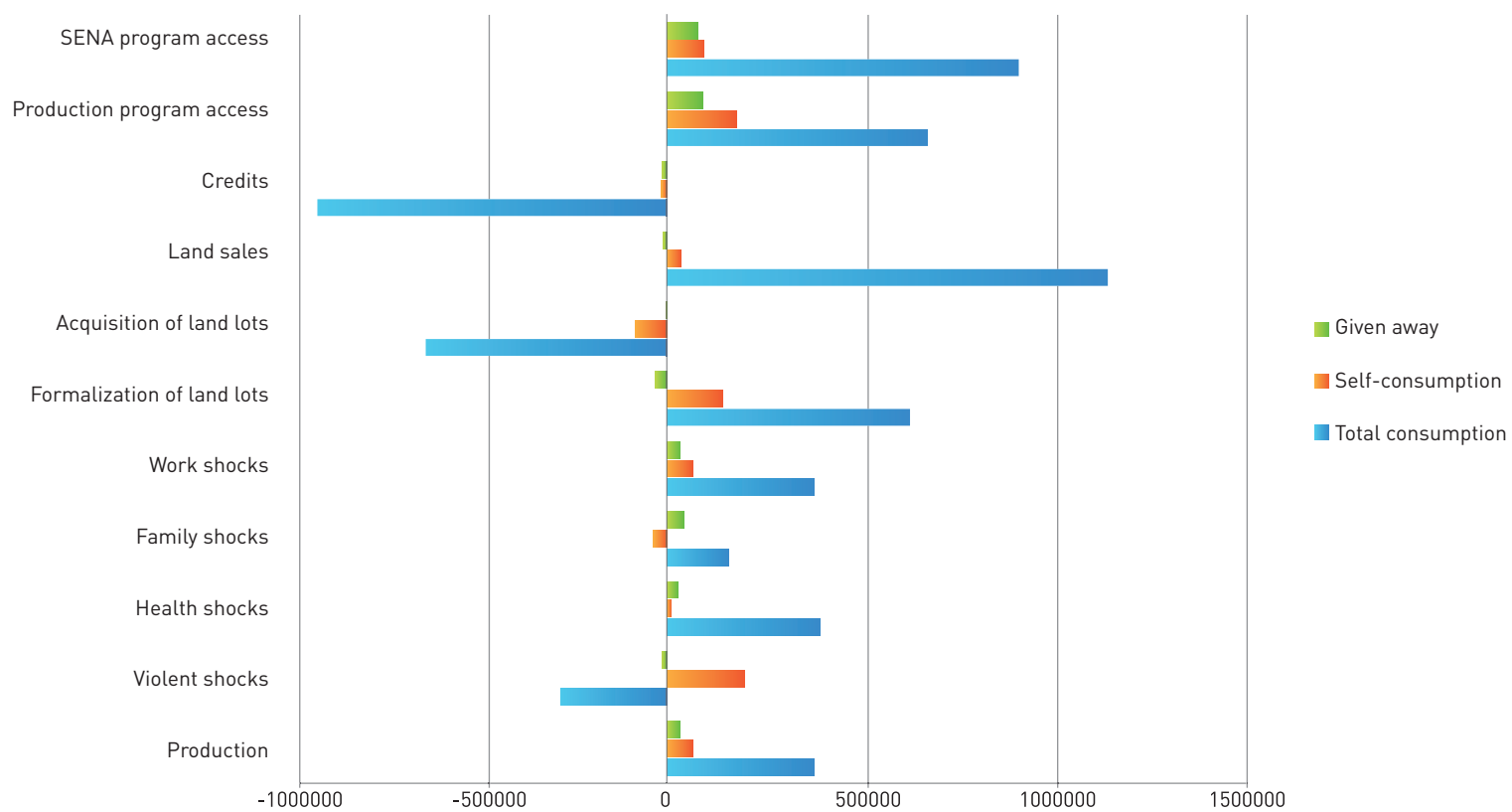
State programs are also related with the well-being of the households. On the one hand, household programs are not related with changes in con-

sumption. This is to be expected since the principal objective of these programs is to aid households to lessen consumption in such a way that falls in income do not necessarily have to lead to falls in consumption. On the other hand, the programs whose goal is to strengthen the capacity to generate present and future incomes are associated with increases in consumption. Production programs are related to a greater production on the plots of land, measured by self-consumption, while the training programs are jointly related to a greater total consumption.

Even though the well-being of rural households increased between 2010 and 2013, the results suggest that they are still very vulnerable. Even though the households managed to avoid falls in present consumption due to shocks, it was at the expense of future consumption given their decapitalization. Moreover, capital is accumulated at the expense of the households' consumption. For example, access to credit is associated with a 79.8% fall in consumption and the acquisition of land is associated with a fall in consumption. It is possible that households decide to reduce their consumption to finance the accumulation of their assets and therefore improve their ability to generate income in the future. However, these are co-related analyses. A more rigorous analysis should be carried out in order to establish whether, in effect, this is a casual relationship, i.e., if access to credit reduces household consumption.

FIGURE 8.5.

DETERMINING FACTORS IN THE CHANGE IN CONSUMPTION IN HOUSEHOLDS BETWEEN 2010 AND 2013 (IN 2013 PESOS).



Source: Authors' calculations based on EICA 2010 and 2013

The rural sample is only representative of the mid-Atlantic, Cundiboyacá, Coffee Region and Center-East micro-regions

8.4. CONCLUSIONS

The results of the two rounds of the ELCA show a slight improvement in rural household conditions. Real consumption rose, access to land improved slightly and investments increased even though a high percentage of these investments appear to be a result of the destruction of homes as a consequence of the bad winter spell.

Access to land plays a determining role in changes in terms of well-being in the households as the analysis in the previous paragraphs shows. However, State programs could also contribute to the improvement of the condition of rural households by expanding their productive and income generation capacities. Although access to productive programs is very low, there is a positive relationship between these programs and changes in consumption. The results show that giving more and better lands to the rural population, formalizing land tenure and designing programs to strengthen the household production capacity, will have a significant impact on their well-being.

Although the households are insured against adverse shocks, the mechanisms used are not ideal. The sale of lands suggests that the households reduce capital after a shock in order to finance present consumption at the expense of future consumption. Policies and investments to reduce vulnerability when faced with shocks, and formal insurance mechanisms, would prevent households from adopting strategies that considerably reduce their future consumption and that put them in highly vulnerable conditions in terms of future shocks.

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