



↑ The Barrancabermeja's wharf neighborhood. Houses of Old Town, where the city's development began





↑ Angela Patricia Valenzuela Pinzón (Santander)

CHAPTER 3

ADVERSE SHOCKS TO HOUSEHOLDS AND COPING MECHANISMS

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3.1 INTRODUCTION

→ When a household suffers an adverse or shocking event —the death of a member, loss of assets, job loss— its response presumably should be directed towards mitigating its effects. This simple economic intuition translates, nonetheless, into an ample range of possible shocks and coping mechanisms, for several reasons. On the one hand, the nature of the shocks can be wide ranging and thus the ideal response depends on the type of shock. Nevertheless, even when faced with the same type of shock, different households can respond in different ways given that their preferences, available resources, institutional environment, and decision-making processes in the household all affect the reactions to shocks. Additionally, reactions evolve over time, thus the reaction of a household varies, not only in the time before and after the shock, but also between the moment immediately following the shock and in the mid-term: these strategies are dynamic. Finally, the shocks can alter the expectations of the household towards the future and change their long-term behavior. In any case, this variety of behaviors between households, and in time, has differential consequences on the well being of the household members.



↑ Inés María Álvarez is the head of a family of nine people: herself, six grandchildren, a son and a nephew. She owns a billiard's bar in Chinú (Córdoba)

In Colombia, up to this date, the initiatives that seek to address such issues have been limited and non-longitudinal in nature. The most significant effort to this date has been the formation of the Delegation for the Design of a Strategy Towards the Reduction of Poverty (Misión para el Diseño de una Estrategia para la Reducción de la Pobreza y la Desigualdad —MERPD)¹. The MERPD broadly described and diagnosed poverty in Colombia, particularly that of the vulnerable population, in order to guide the relevant policies in the country. That is to say, it took a snapshot of the situation of the country in a given moment. However, its cross-sectional nature did not allow to examine the dynamics of poverty in detail for an effective focalization of public policy efforts. In contrast, the Colombian Longitudinal Survey of Universidad de los Andes (ELCA, by its Spanish acronym), which interviews the same households at various points in time, is the ideal instrument to allow researchers to examine the economic consequences of the different types of shocks, depending on how these households react, and the progression of their reaction.

ELCA asks the households —from a list of 17 for urban areas and 34 for rural areas (see Annex 1)— which shocks they suffered during the last year: 32.5% of the total 5,448 households in the urban area and 47.1% of the 4,720 households in the rural area report having suffered at least one shock. In this document, the shocks suffered by house-

holds are grouped into nine categories according to economic criteria. The first five categories are shocks occurring both in the rural and in the urban areas, and correspond to events that destabilized the household, identified as: shocks related to health, family cohesion, employment, assets, and violence. The last four types of shocks are only asked about in the rural survey and correspond to events that destabilized the community: armed conflict, general crime, natural disasters, and the bankruptcy/closing of businesses.

The possible coping mechanisms a household uses to deal with shocks are of a varied economic nature; some even involve behaviors that precede the shock. At the onset, there are *ex ante* strategies: if the household does not have insurance mechanisms, it can previously try to diversify its economic activities to prevent any shock from affecting them all simultaneously. In the second place, if the household has invested in insurance, whether formal or informal, the direct impact of the shock can be assuaged by resorting to it *ex post*. Finally, the uninsured portion of the shock is compensated for by changing the behavior of the household, both in consumption (and savings or investments) as well as production. In theory, the level of consumption of the household should diminish in an amount proportional to the impact of the shock on the present value of their income and assets, in so far as the remaining effect of the shock will be reflected in dissaving or decrease in

the level of investment. Nonetheless, to the extent that the alternatives for reaction of the household are limited by the environment —for example, because of a lack of an adequate labor market, or because the household does not have access to financial markets— the reaction towards the shock might not be the one preferred by the household, but that which is within their reach.

In line with these economic alternatives, the survey included a menu of possible coping mechanisms used by the households in response to the shocks: 22 possible reactions for the urban area and 24 for the rural, plus 22 additional options for the rural area if the shock affected the community (see Annex 2). In this document we have grouped these options into eleven categories: insurance related (informal or with formal entities), consumption (participation in the labor force, migration, investment in security, changes in production decisions) and dissaving (assets, human capital, and change in housing), other answers, and, finally, if they decided to do nothing.

Of course, it is impossible to know what the household would have preferred to do in absence of constraints. The survey only tells us what they in fact did. This is in itself interesting for understanding the economic phenomenon of risk and for the design of public policies addressing it (Lipton and Ravallion 1993): understanding the mechanisms that households effectively resort to sheds light

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1. In concert with the National Planning Department they published the book *Pobreza y desigualdad en Colombia: diagnóstico y estrategias* (Poverty and inequality in Colombia: Diagnosis and Strategies) in 2007.

on the nature of the shocks themselves; improving the efficacy of these mechanisms should increase the well-being of the population. But for a proactive public policy it is also desirable to know if there is a potentially better mechanism that is simply not available, but would be convenient to develop.

ELCA offers us an indirect way to support such proactive policies. Economic literature allows us to know which are the effects —costs and benefits in the short and long term— of the different ways to react towards shocks. Assuming a rational household, one can presume that if they choose a relatively costly reaction it is because a better option was not within their grasp. Or else, if for example the households in a region with good insurance markets choose to insure themselves, while similar households in another region that lacks access to these markets opt to increase their labor participation or to migrate, it is reasonable to suppose that the latter were forced into suboptimal strategies when faced with shocks.

As an initial review of ELCA's information, the following section describes the results of the baseline survey for the shock module, comparing the results for households in different urban socioeconomic levels and rural areas. Section 3.3 shows, with similar geographical breakdown, the results according to the type of shock and the response of each household in each case.

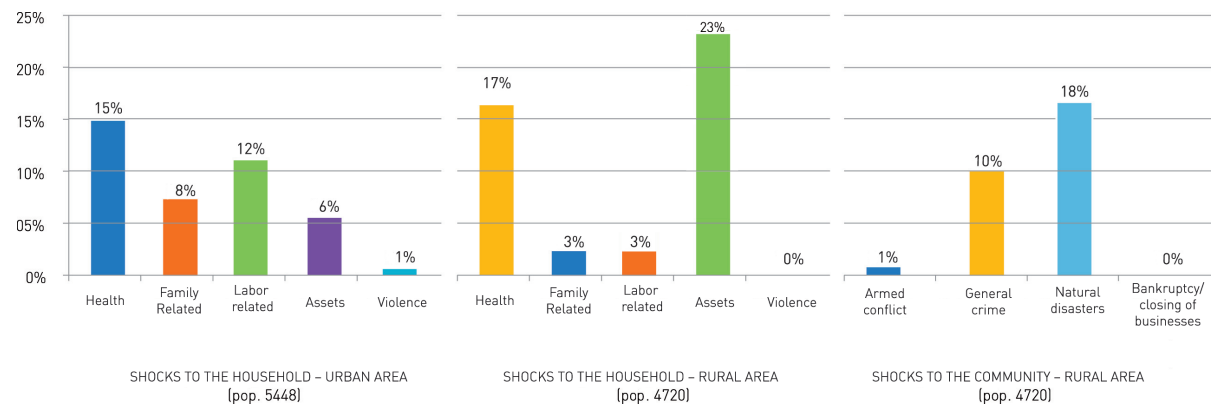
3.2. GENERAL DESCRIPTION

3.2.1. BY REGION AND BY SOCIOECONOMIC LEVEL

Graph 3.1 shows the percentage of households that suffered at least one shock, according to the area to which the household belongs, and if the shock destabilized the household or the community. In the urban area, the principal shock that affected the population was related to health, followed by a shock in which some member of the household lost their employment, and by family related shocks. In the rural area, the events that affected the health of a household member also register a high percentage, but the most frequent type of shock was related to household assets. The shocks to the community that had the greatest occurrence were those considered as natural disasters and general crime, while the shocks relating to armed conflict and bankruptcy or closing of businesses affected less than 1% of households.

GRAPH 3.1

PERCENTAGE OF HOUSEHOLDS WHICH EXPERIENCED EACH TYPE OF SHOCK, BY AREA



Source: Own calculations based on ELCA

TABLE 3.1.

PERCENTAGE OF HOUSEHOLDS THAT EXPERIENCED EACH TYPE OF SHOCK BY ZONE, BY AREA, AND BY SOCIOECONOMIC LEVEL DURING THE LAST 12 MONTHS.

Of course, the aggregate rural / urban statistic underestimates the range of risk profiles: the two upper panels of Table 3.1 show that the overall incidence of shocks varies among the four rural and five urban regions. For the urban area, the region with the highest incidence was Bogotá (44.6% of households surveyed experienced at least one shock), followed closely by the Eastern region. In the rural area, the first place corresponds to the Cundiboyacense region, in which recorded rates of shocks in households are 53.5%, and 34.8% in the communities. In contrast, the Central and the Coffee regions had the lowest percentage rate of incidence for all shocks, except for general crime events in the Coffee Region². Despite this heterogeneity, the relative importance of each type of shock within each region follows the same pattern observed in Table 3.1., both in rural and in urban areas.

		Region					Total**
		Atlantic	Bogotá	Central	Eastern	Pacific	
SHOCKS TO HOUSEHOLD (URBAN AREA)	Some shock*	27.3%	44.6%	15.5%	42.7%	33.7%	32.5%
	Health	12.4%	21.5%	6.4%	21.0%	16.0%	15.3%
	Family related	8.1%	13.3%	2.2%	9.2%	7.6%	8.0%
	Laboral related	9.1%	17.9%	5.5%	15.0%	13.1%	12.0%
	Assets	3.8%	8.5%	2.7%	10.9%	5.6%	6.3%
	Violence	0.9%	1.3%	0.8%	3.0%	1.2%	1.4%
	Total Households	1,126	1,081	1,164	1,101	976	5,448
		Mid- Atlantic	Cundiboyacense	Coffee Region	East Central	Total**	
SHOCKS TO HOUSEHOLD (RURAL AREA)	Some shock*	33.9%	53.5%	24.8%	36.6%	37.3%	
	Health	14.8%	20.8%	14.1%	17.6%	16.8%	
	Family related	2.9%	3.7%	2.1%	2.9%	2.9%	
	Laboral related	1.4%	6.2%	3.2%	0.6%	2.9%	
	Assets	19.9%	38.6%	10.2%	22.3%	22.8%	
	Violence	0.3%	0.1%	0.7%	0.5%	0.4%	
SHOCKS TO THE COMMUNITY (RURAL AREA)	Some shock*	23.3%	34.8%	17.0%	23.9%	24.8%	
	Armed Conflict	0.3%	0.2%	0.9%	1.1%	0.6%	
	Common Crime	3.8%	18.9%	8.9%	10.2%	10.5%	
	Natural Disasters	21.2%	24.4%	9.1%	15.8%	17.6%	
	Business Bankruptcy/ Closing	0.2%	0.5%	0.0%	0.0%	0.2%	
Total Households	1,180	1,203	1,209	1,128	4,720		
		Socioeconomic level				Total**	
		1	2	3	4	Total**	
SHOCKS TO HOUSEHOLD (URBAN AREA)	Some shock*	34.2%	34.4%	29.6%	24.6%	32.5%	
	Health	15.2%	16.8%	14.0%	11.6%	15.3%	
	Family related	8.5%	8.7%	6.8%	6.7%	8.0%	
	Laboral related	12.7%	12.4%	11.7%	6.3%	12.0%	
	Assets	6.5%	7.1%	4.8%	6.7%	6.3%	
	Violence	2.4%	1.4%	0.5%	1.8%	1.4%	
Total Households	1,440	2,190	1,533	285	5,448		

* The percentage of households that suffered some shock does not coincide with the sum of the shocks broken down by category, as there are households that suffered more than one shock.

** The sum of households that suffered shocks is not equal to the total number of households (last column), given that the regions have different sizes.

Source: Own calculations based on ELCA.

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2. It is important to note that even though it is possible to compare the regions of the urban area, it is impossible to run the same analysis with the regions in the rural area given the large differences that exist amongst them.

The last section of Table 3.1 illustrates the percentage of households affected by each type of shock in each socioeconomic level of the urban area. More than a third of the sample in socioeconomic level 1 and 2 experienced some type of shock in the last twelve months, compared to 29.6% in socioeconomic level 3 and 24.6% in socioeconomic level 4. As in Graph 3.1, in all socioeconomic levels the main destabilizing event is related to the health of the members of the household. The loss of employment is the second in frequency for the socioeconomic levels 1, 2, and 3, but loses its relative importance in the case of socioeconomic level 4.

3.2.2. WEALTH INDEX

The question of whether shocks affect the poor more than the rich has been extensively studied in economic literature (Morduch, 2002). A first approach to this inquiry is presented in Table 3.2, which provides a standardized wealth index among the population affected by different types of shocks³. The top panel of the table shows that the urban households that suffered no shocks are on average 0.118 standard deviations richer than those who did; for rural households the difference is of 0.055 standard deviations. In contrast, the shocks that affect the community (rural areas only) do not discriminate between rich and poor households.

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3. We used the wealth index presented in Chapter 2 of this book.

TABLE 3.2.

DIFFERENCE BETWEEN THE AVERAGES OF THE WEALTH INDEX FOR HOUSEHOLDS THAT SUFFERED THE SHOCK AND THOSE THAT DID NOT (MEASURED IN STANDARD DEVIATIONS)

	Urban		Rural		
Shock vs. no shock (household)	0.118***		0.055*		
Shock vs. no shock (community)			-0.033		
By Shock					
By Shock	Urban	Rural	By Region	Urban	Rural
Health	.083**	.006	Atlantic	.044	
Family related	.013	.096	Eastern	.286***	
Assets	.230***	.086**	Central	.064	
Labor related	.159***	-.053	Pacific	.136***	
Violence	.374***	.158	Bogotá	.018	
Armed conflict		-.393**	Mid- Atlantic		.490***
General crime		-.010	Cundiboyacense		-.090**
Natural disasters		-.033	Coffee Region		-.212***
B/C of businesses		.040	East Central		-.043*
*** Significant to 1%, ** Significant to 5%, * Significant to 10%					

Source: Own calculations based on ELCA.

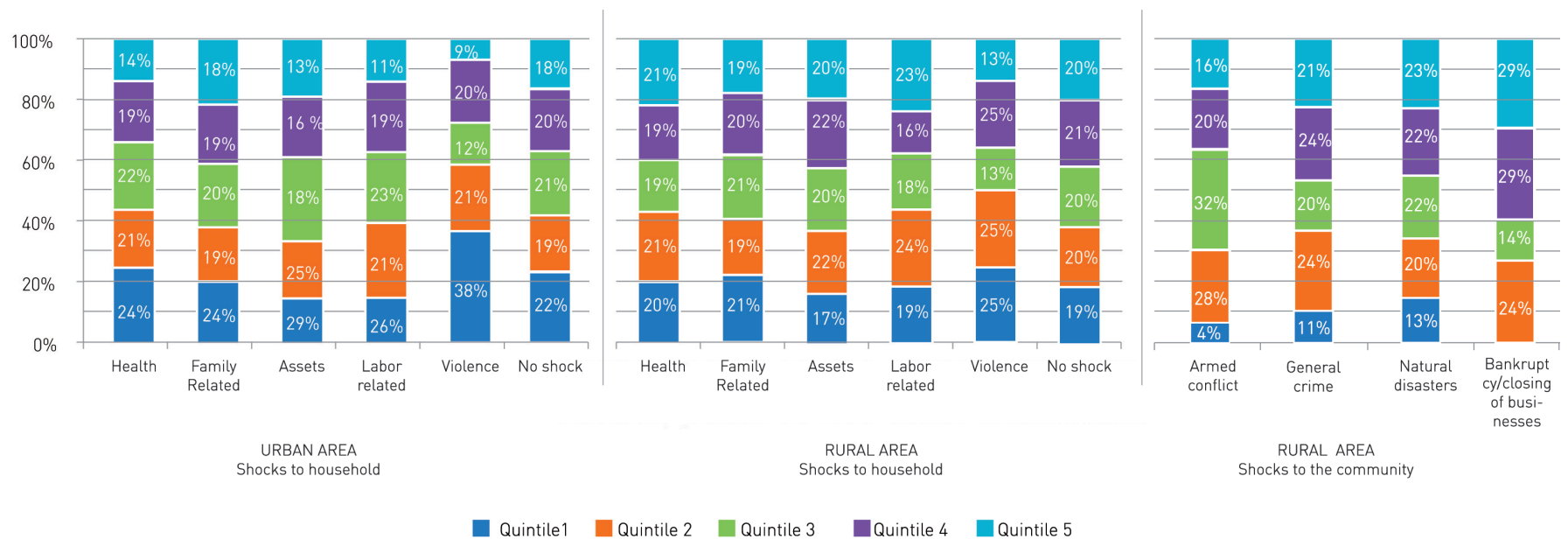
When broken down by type of shock, it is observed that this difference is maintained in urban areas for all categories, except for family related shocks. However, this urban result seems to be determined by the Eastern and Pacific regions, the only ones revealing a positive and significant difference in the wealth index. The rural area shows even more interesting results. The difference in the mean wealth index is statistically significant for all regions, but in reverse: except for the Mid-Atlantic region, the shocks affect the wealthiest households the most. The breakdown by type of shock shows that the difference in means in this index is significant only for shocks relating to assets and shocks relating to armed con-

flict. Shocks relating to assets are mainly associated with less wealthy households, and violence shocks with the wealthier.

Graph 3.2 shows the distribution of the population affected by each type of shock, according to wealth

quintiles. In general, the shocks are distributed uniformly among the quintiles. The most notable exceptions are violence, which affects in the urban area mainly the poorest quintile (38.2% of the total affected), and the fact that shocks to the community do not seem to affect the poorest quintile in rural areas.

GRAPH 3.2.
WEALTH INDEX BY QUINTILES ACCORDING TO TYPE OF SHOCK



Source: Own calculations based on ELCA.

3.3. SHOCKS AND MITIGATING MECHANISMS

After examining the incidence patterns of shocks, it is now appropriate to analyze how the households react towards them. Economic literature considers several types of responses, and classifies them as decisions regarding the smoothing of income (*ex ante* mechanisms) or the smoothing of consumption (*ex post*)⁴. The efficacy of the various options is, however, dissimilar, and to the extent that households do not have available optimal smoothing mechanisms that allow them to transfer resources over time, decisions can be detrimental in the long run. In extreme cases, such inefficiency can lead to poverty traps⁵.

In the category of income smoothing, situations have been studied in which the household makes conservative or low-risk⁶ decisions regarding production and investment, thereby protecting themselves against idiosyncratic risks, but reducing their expected future income, given that a less risky investment generates lower returns (Morduch, 1995; Kochar, 1998). Another method of *ex ante* protection is keeping productive liquid assets idle, so that if a shock occurs they have a mechanism of immediate reaction (Jalan and Ravallion, 2001), or selling productive assets such as animals and land to withstand the shock after it ensues (Morduch, 1994).

In terms of consumption smoothing mechanisms, these appear after the shock occurs, in such a way that the household consumption be disrupted as little as possible in relation to the variability of income. Among the decisions, are considered the situations where households borrow, save or insure themselves, individually or communally, in formal and informal environments, accumulate and dissolve non-financial assets, and adjust their labor supply (Baez, 2006; Kochar, 1998).

For the purpose of this report, we study the shocks related to health, assets, labor market, general crime, and natural disasters, and the main responses of the households towards them. The graphs presented in the following sections show the principal responses to the analyzed shocks. The category “other” comprises those responses whose incidence was relatively low; the answers included vary from shock to shock.

3.3.1. HEALTH RELATED SHOCKS

Graph 3.3 shows the reactions of households who experienced a health related shock. The horizontal axis depicts each of the regions included in the survey for the urban area and rural area, and in parentheses the total number of households that

suffered the shock in that region. Of those households affected, the columns show how they responded, indicating the percentage that reports each of the responses⁷.



↑ Elva Marina Santander visits the ruins of her home in Gramalote (Norte de Santander) after the flood that wiped out her town.

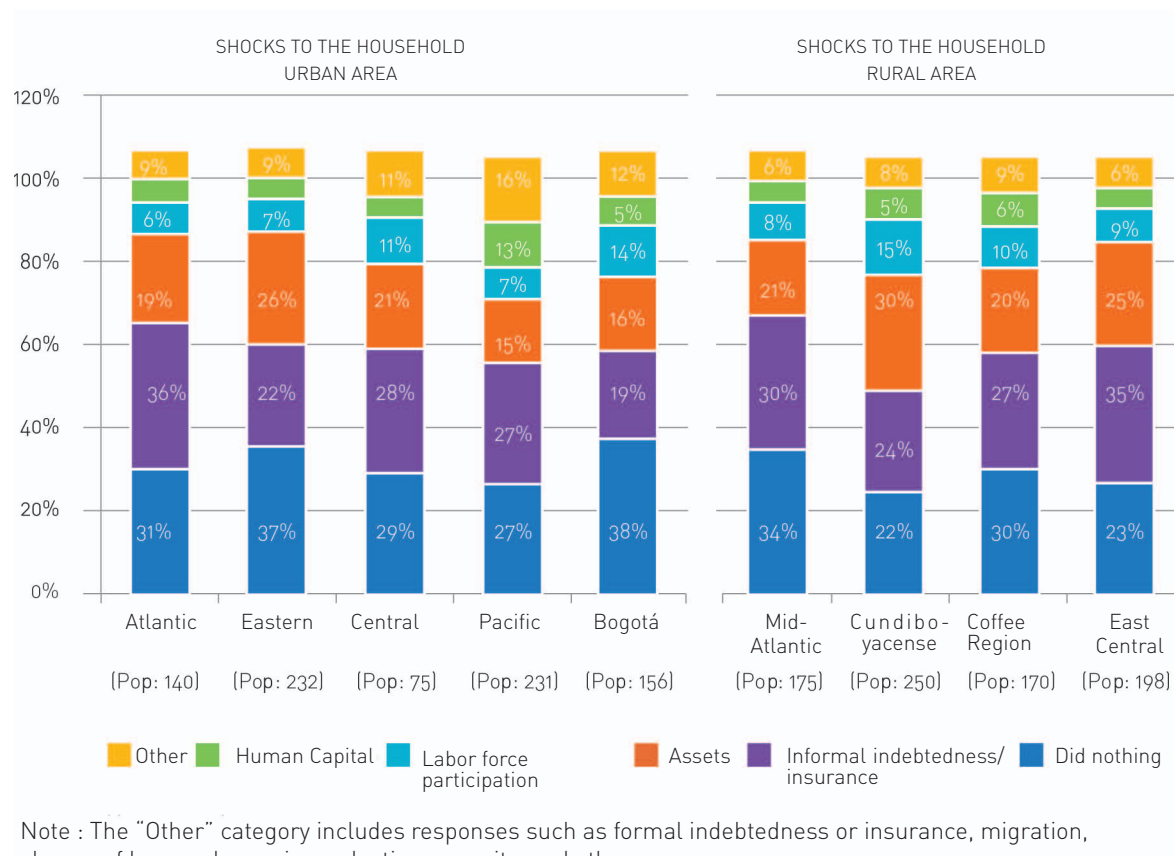
4. Baez (2006) conducts a review of studies which analyze behaviors facing risk and the coping mechanisms available to households, focusing on rural households in developing countries.

5. Poverty traps refer to any self-enforcing mechanism that allows poverty to persist. (Azariadis and Stachurski, 2005, pág. 326).

6. A good part of related literature has developed in a rural environment, where agriculture is the predominant economic activity. Almost all the bibliography for this chapter has employed the survey developed by the ICRISAT (International Crops Research Institute for Semi-Arid Tropics).

7. Given that a household can choose not to respond to a shock, or have more than one response towards a shock, the percentage does not necessarily add up to 100.

GRAPH 3.3.
PERCENTAGE OF HOUSEHOLDS THAT HAD EACH TYPE OF RESPONSE TOWARDS A HEALTH RELATED SHOCK



Source: Own calculations based on ELCA.

A high percentage of households report not having acted when confronted with the shock: between 27.3% (Pacific region) and 38.5% (Bogotá) in the urban area, and between 22% (Cundiboyacense) and 34.3% (Mid-Atlantic) in the rural area.

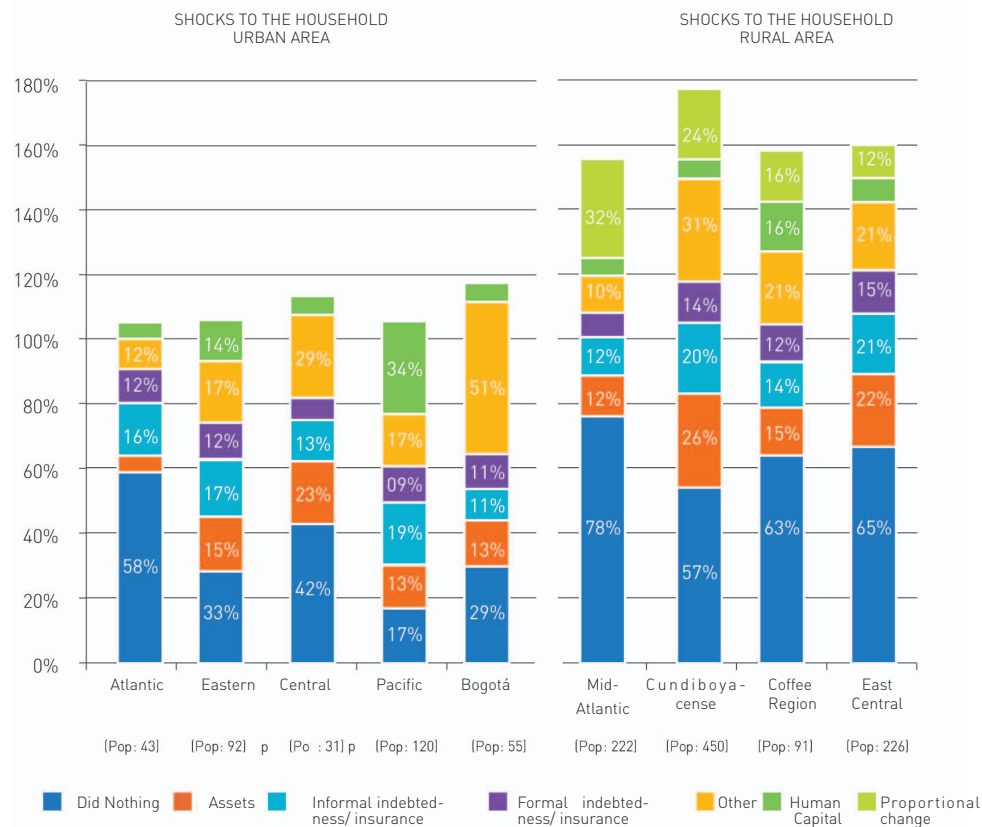
The most common responses in both areas involve the use of assets and of informal insurance or indebtedness mechanisms. Within the use of assets, 90% of the answers correspond to the spending of household savings to cope with the shock, both in urban and rural areas. Another item particularly interesting is informal indebtedness or insurance, which economic literature highlights as a suboptimal solution when faced with lack of access to formal credit. Consistent with the literature, the main reason to borrow from friends or family is to meet immediate consumption decisions (see, for example, Fafchamps and Lund (2003) for the case of the Philippines).

3.3.2. SHOCKS RELATED TO ASSETS

Section 3.2 presented that 6.3% of the urban sample and 22.8% of the rural households experienced a shock related to assets, being the shock of greater occurrence in the rural areas. In Graph 3.4 the responses regarding this type of shocks are shown.

GRAPH 3.4

PERCENTAGE OF HOUSEHOLDS THAT HAD EACH TYPE OF RESPONSE TOWARDS A SHOCK RELATED TO ASSETS



Note : The "Other" category includes responses such as migration, labor force participation, change in home, security, and others.

In the rural area, asset related shocks were concentrated in the categories of "Pest or crop loss", as 57.6% of all shocks were of this type, and "Loss or death of animals", with 29.2%, considered as productive assets of the households. For urban areas, the most frequent shock related to assets was "Theft, fire or destruction of household goods", with 39.2%, followed by the "Loss or cut of remittances", with 29.7%.

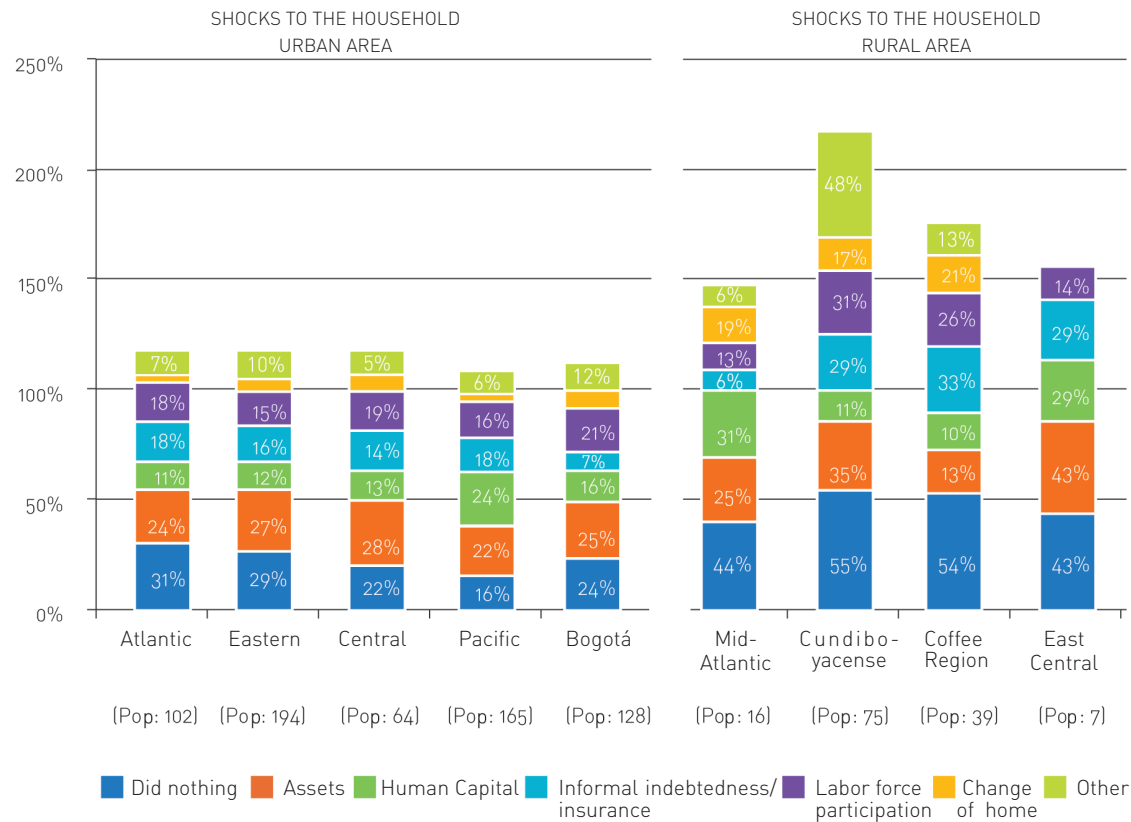
Graph 3.4 displays the diversity of responses towards this type of shocks. As expected, in the rural area a very frequent response is a change in production decisions, including the use of fungicides or animal medications. In the urban Pacific region the main response was to reduce investment in human capital (34.2%), a reaction of particular concern in light of the economic literature, which indicates that spending less on the children's education and on food is a manner to bear the shock by reducing immediate spending needs and accessing manual labor (the children), but it is a decision that affects the children's future earnings potential and increases the risk of malnutrition (Jalan and Ravallion, 2001; Jensen, 2000). Finally, the nine regions show that informal indebtedness or insurance was more important than formal access to those services, with a response rate between 10% and 20% of those surveyed.

Source: Own calculations based on ELCA.

3.3.3. LABOR RELATED SHOCKS

When faced with a labor related shock, the households' most frequent response involved household assets, except for those in the Coffee Region within the rural area. The East Central, Mid-Atlantic, and Pacific regions show a decrease in investment in human capital for over 20% of responses, as depicted in Graph 3.5. The use of informal indebtedness or insurance mechanisms is a significant response for all regions, particularly in the Coffee Region, Cundiboyacense, and East Central regions. In these cases the households resorted to family or friends. Finally, in the rural area the decision to change housing —not associated with migration— in order to overcome the loss of employment of a household member is quite significant. In this case, 40.6% of the households who decided to change housing went to live with relatives or friends.

GRAPH 3.5.
PERCENTAGE OF HOUSEHOLDS THAT HAD EACH TYPE OF RESPONSE
TOWARDS A SHOCK RELATED TO LABOR



Note : The "Other" category includes responses such as formal indebtedness/ insurance, migration, change in production , security, and others.

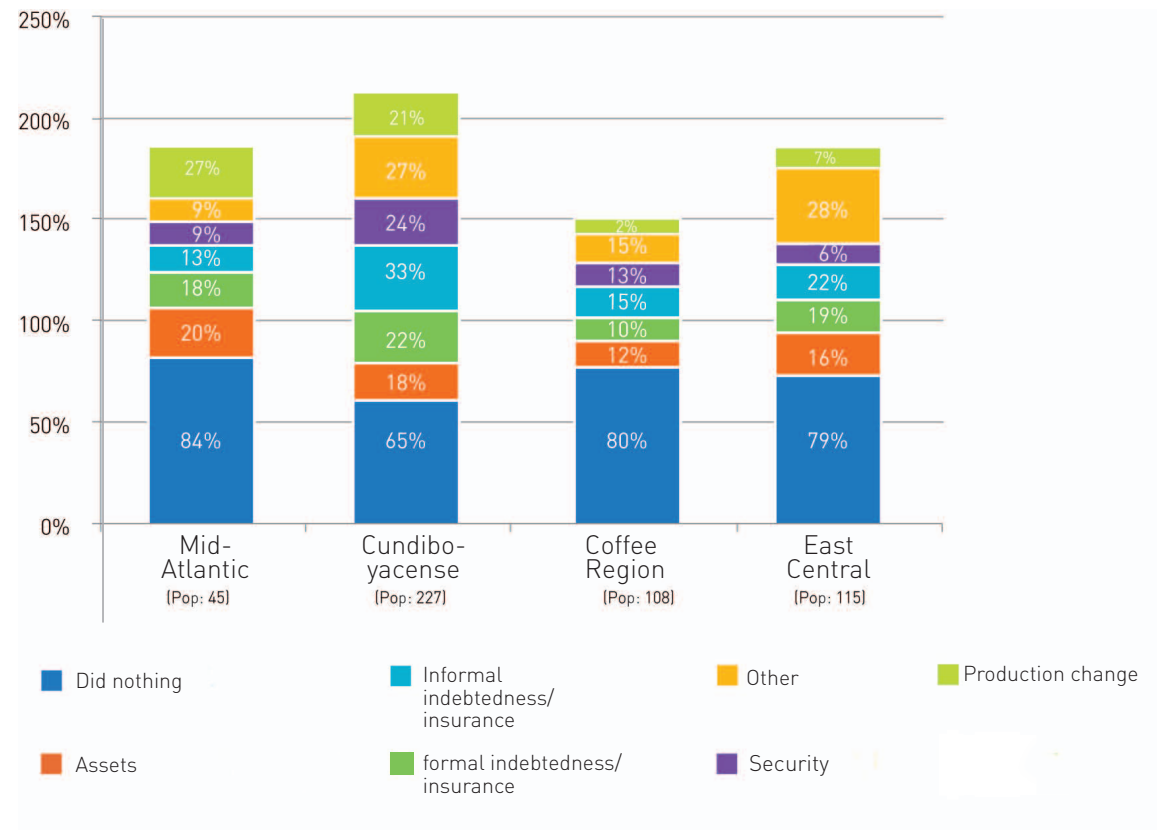
Source: Own calculations based on ELCA.

3.3.4. SHOCKS RELATED TO GENERAL CRIME

Those shocks classified as related to general crime were only asked to households in rural areas. Within this category, the most frequent shocks were: problems related to theft of homes (48.1%), followed by livestock theft (28.9%), and robbery (13.3%). As shown in Graph 3.6, over 65% of households in the four regions did nothing when faced with shocks of this kind. With respect to households who decided to resort to formal indebtedness or insurance mechanisms, 80% of them sought help from national and international institutions, while only 20% turned to measures of indebtedness. One question that must be addressed in future studies, and for which ELCA has the relevant information, is whether only this 20% had access to credit markets, or if those who resorted to national and international institutions also had access but decided not to pursue it.

GRAPH 3.6.

PERCENTAGE OF HOUSEHOLDS THAT HAD EACH TYPE OF RESPONSE TOWARDS A SHOCK RELATED TO GENERAL CRIME



Source: Own calculations based on ELCA.

A response of great interest, given the type of shock, is the one grouped under the category of security. Within the households that were in this group, 60% decided to join together with other households to defend themselves, 37.5% increased their cooperation with the authorities, and only 2.5% hired private surveillance.

3.3.5. NATURAL DISASTERS

The rural areas characterized by their dependence on agriculture are particularly sensitive to natural disasters. This implies a high volatility of returns for this activity, especially due to climatic conditions (Jensen, 2000, p. 399). The main shock within this category for households in the sample was “Pests or crops” (61%), followed by “Epidemics that killed several animals” (14.1%), and “Floods” (13%). Given these conditions, it is to be expected that a high percentage of response refers to decisions in which there is an increase in the use of fungicides or animal medications (“Production Change” in Graph 3.7). This response comprised between 15.5% and 38.2% of decisions taken to cope with natural disasters.

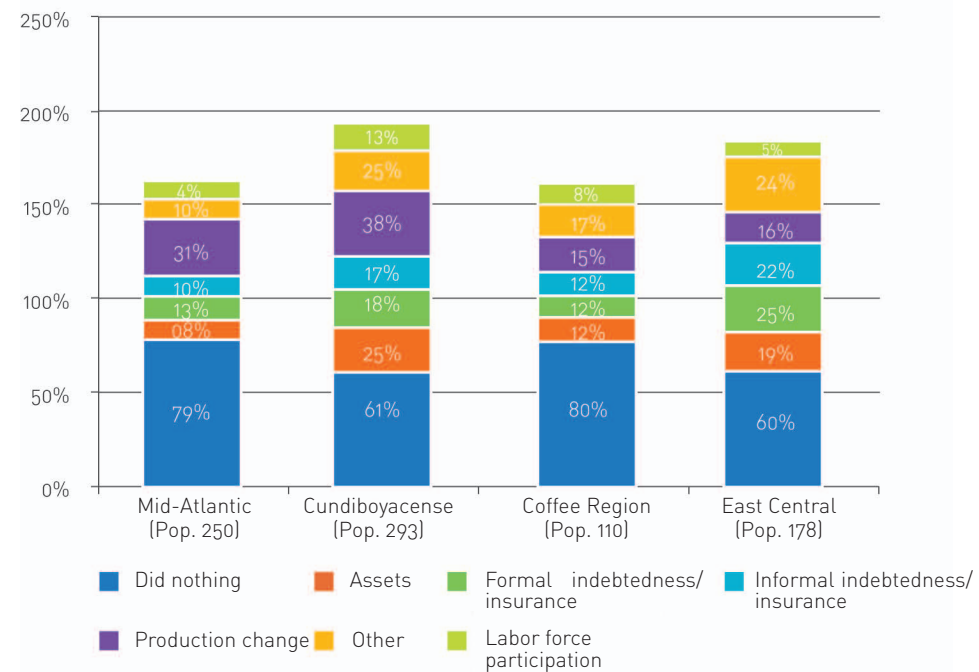
Once again, a high percentage of the households that suffered this type of shock decided to do nothing. In the Cundiboyacense and Coffee regions, there were increases in labor force participation, which is to say that household members who did not work previously went out to look for work, or those who were already wor-

king increased their work hours. Finally, the responses of assets and formal and informal indebtedness or insurance followed the same pattern as in previous shocks: households made use of their savings and went to national and interna-

tional institutions in the credit market. However, in this case the participation of formal mechanisms was greater than or equal to the participation of informal mechanisms such as friends and family.

GRAPH 3.7.

PERCENTAGE OF HOUSEHOLDS THAT HAD EACH TYPE OF RESPONSE TOWARDS A SHOCK RELATED TO NATURAL DISASTERS



Note : The “Other” category includes responses such as human capital, migration, change in housing, security and others.

Source: Own calculations based on ELCA.

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ANNEX 1. TABLE OF DESTABILIZING EVENTS (SHOCKS) ASKED TO HOUSEHOLDS

	Rural Area		Urban Area	
	Shocks to household	Type	Shocks to household	Type
1	Illness of a member of the household which prevented them from performing their daily activities	Health	Illness of a member of the household which prevented them from performing their daily activities	Health
2	Accident of a member of the household which prevented them from performing their daily activities	Health	Accident of a member of the household which prevented them from performing their daily activities	Health
3	Death of whomever was head of the household or their spouse	Family Related	Death of whomever was head of the household or their spouse	Family Related
4	Death of any other member(s) of the household	Family Related	Death of any other member(s) of the household	Family Related
5	Desertion of whomever was head of the household or their spouse	Family Related	Desertion of whomever was head of the household or their spouse	Family Related
6	Desertion of the household by minor less than 18 year old	Family Related	Desertion of the household by minor less than 18 year old	Family Related
7	Separation of the spouses	Family Related	Separation of the spouses	Family Related
8	The head of the household lost their employment	Labor Related	Arrival or welcome of a member into the household	Family Related
9	The spouse lost their employment	Labor Related	Head of household lost job	Labor Related
10	Another member of the household lost their employment	Labor Related	The spouse lost their employment	Labor Related
11	Had to abandon their habitual place of residence	Assets	Another member of the household lost their employment	Labor Related
12	Bankruptcy and /or closing of the family business(es)	Assets	Had to abandon their habitual place of residence	Assets
13	Theft, fire, or destruction of the household's assets	Assets	Bankruptcy and /or closing of the family business(es)	Assets
14	Loss or cuts to remittances	Assets	Theft, fire, or destruction of the household's assets	Assets
15	Loss of the farms, plots, lands, or pieces of lands	Assets	Loss or cuts to remittances	Assets
16	Pests or loss of crops	Assets	Loss of the home	Assets
17	Loss or death of animals	Assets	Were victims of violence	Violence
18	Were victims of violence	Violence		

Rural Area		
	Shocks to the community	Type
19	Clashes between armed groups	Armed Conflict
20	Terrorist attempts	Armed Conflict
21	Massacres, clashes, or attacks by armed groups	Armed Conflict
22	Gangs or general crime	Common Criminality
23	Thefts to homes	Common Criminality
24	Assaults	Common Criminality

25	Livestock theft	Common Criminality
26	Extortions	Common Criminality
27	Floods	Natural disasters
28	Landslides	Natural disasters
29	Earthquakes	Natural disasters
30	Other natural disasters	Natural disasters
31	Epidemics that killed various animals	Natural disasters
32	Human epidemics	Natural disasters
33	Pest on crops	Natural disasters
34	Bankruptcy or closing of businesses	Bankruptcy /closing of businesses

ANNEX 2. TABLE OF REACTIONS /RESPONSES TOWARDS SHOCKS SUFFERED BY HOUSEHOLDS

	Rural Area		Urban Area	
	Household Responses	Type	Household Responses	Type
1	Member of the household who did not work went to find work	Participation in labor force	Member of the household who did not work went to find work	Participation in labor force
2	Members of the household already working increased their work hours	Participation in labor force	Members of the household already working increased their work hours	Participation in labor force
3	One or more members of the household changed their residency	Migration	One or more members of the household changed their residency	Migration
4	One or more members of the household left the country	Migration	One or more members of the household left the country	Migration
5	One or all members of the household went to live with relatives	Changes in housing	One or all members of the household went to live with relatives	Changes in housing
6	They moved to a less expensive home	Changes in housing	They moved to a less expensive home	Changes in housing
7	They relocated	Changes in housing	They relocated	Changes in housing
8	Withdrew the children from school or college	Human capital	Withdrew the children from school or college	Human capital
9	Moved the children to a less expensive school	Human capital	Moved the children to a less expensive school	Human capital
10	Decreased expenditures on food	Human capital	Decreased expenditures on food	Human capital
11	Asked help from family members, friends and other people in the community	Informal indebtedness /insurance	Asked help from family members, friends and other people in the community	Informal indebtedness /insurance

12	They entered into debt with family or friends	Informal indebtedness /insurance	They entered into debt with family or friends	Informal indebtedness /insurance
13	Spent savings	Assets	Spent savings	Assets
14	Sold belongings or assets	Assets	Sold belongings or assets	Assets
15	Mortgaged an asset (house, car, farm, etc.)	Assets	Mortgaged an asset (house, car, farm, etc.)	Assets
16	Rented an asset (house, car, farm, etc.)	Assets	Rented an asset (house, car, farm, etc.)	Assets
17	Sacrificed animals	Assets	-	-
18	They entered into debt with a bank or a financial institution	Formal indebtedness /insurance	They entered into debt with a bank or a financial institution	Formal indebtedness /insurance
19	Asked national or international institutions for help	Formal indebtedness /insurance	Asked national or international institutions for help	Formal indebtedness /insurance
20	Used some insurance	Formal indebtedness /insurance	Used some insurance	Formal indebtedness /insurance
21	Acquired some insurance	Formal indebtedness /insurance	Acquired some insurance	Formal indebtedness /insurance
22	Increased the use of fungicides or animal medicines	Production changes	Was unnecessary to do something that altered the customs of the household	Did nothing
23	Was unnecessary to do something that altered the customs of the household	Did nothing		

Rural Area

	Response to shocks to the community	Type
1	Members of the household went out to work, look for work, or increased their work hours	Labor force participation
2	Members of the household changed their residency or went to live with family	Migration
3	Members of the household left the country	Migration
4	They relocated	Change of housing
5	Withdrew the children from school or college	Human Capital
6	Decreased expenditures on food	Human Capital
7	Asked help from family members, friends and other people in the community	Informal indebtedness /insurance
8	They entered into debt with family or friends	Informal indebtedness /insurance
9	Spent savings	Assets
10	Sold belongings or assets	Assets
11	Mortgaged an asset (house, car, farm, etc.)	Assets
12	Rented an asset (house, car, farm, etc.)	Assets
13	Sacrificed animals	Assets
14	They entered into debt	Formal indebtedness /insurance

15	Asked national or international institutions for help	Formal indebtedness /insurance
16	Used some insurance	Formal indebtedness /insurance
17	Acquired some insurance	Formal indebtedness /insurance
18	Increased their cooperation with the authorities	Security
19	Joined together with other households to defend themselves	Security
20	Hired private surveillance	Security
21	Increased the use of fungicides or animal medicines	Production changes
22	Was unnecessary to do something that altered the behavior of the household	Did nothing