

Assets and Shocks. A Gendered Analysis of Ecuador, Ghana and Karnataka, India

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Abstract:

Drawing upon representative household surveys in Ecuador, Ghana and Karnataka, India, we analyze the relationship between assets and shocks. In this paper we analyze two dimensions of the relationship between assets and shocks, i.e. asset loss as part of the shock and the loss of assets that occurs when assets are pawned or sold as part of the coping strategy. This analysis is important because of the role assets can play in helping households and individuals cope with vulnerability and avoid impoverishment. However, there may be limits to using assets as a coping strategy if the shock itself involves the loss of assets, such as through a fire or livestock loss due to theft or disease. Asset shocks deplete asset wealth and reduce the capacity to protect consumption and income using asset-based strategies when shocks occur. A gendered analysis of assets and shocks is important because women and men in the same household may not always experience the same shocks or be impacted by them in the same way. Women and men do not always have access to the same pool of resources and may therefore employ different coping strategies even when experiencing the same shock. This paper provides some insights into which assets are lost as a direct result of the shock, whose assets are lost, which assets are sold or pawned, to whom they belong, who is involved in the decision to sell or pawn the asset and whether the asset has been replaced.

Introduction

People everywhere face a wide range of potential shocks that may impact their well-being and quality of life. These include illness and injury, the loss of property and/or livelihoods, the breakdown of families and households, and natural disasters.

In most studies, shocks are classified according to whether they are idiosyncratic or covariate. An alternative basis for analyzing shocks is establishing whether the shock is an asset shock (i.e. shocks that directly involve the loss of assets). Using this approach, the classification of idiosyncratic vs. covariate is less useful, since losses sustained from events such as robberies, fires, and floods could be classified as either idiosyncratic or covariate. In addition to direct asset shocks, other shocks may involve the loss of assets—divorce may result in a decline in the asset wealth of one or both spouses. Classifying shocks based on whether they are asset shocks is useful because of the role of assets play in coping with shocks. It is widely accepted that when people own assets, they experience less vulnerability and insecurity in the face of risks; conversely, the more peoples' assets are eroded, the greater their vulnerability (Hulme and McKay 2005; Hulme and Shepherd 2003; Moser 2007).

Yet existing studies do not tell us very much about the relationship between shocks and asset ownership, nor how this relationship is mediated by gender. While the patterns of asset ownership differ for men and women, little is known on whether men and women differ in using specific assets to cope. To understand the relationship between shocks and assets and the extent to which assets provide economic security and a safety net, it is important to understand how they are distributed within the household and whose assets are affected by shocks. Furthermore, to understand the particular vulnerability of women to shocks, it is critical to know what assets belong to them individually.¹

In this paper we use unique data sets collected in Ecuador, Ghana, and Karnataka, India, to explore the extent to which experiences of shocks are related to asset ownership. Our datasets include information about the individual ownership of all assets, the shocks experienced, and the coping strategies used. For Ecuador, we present information on whose assets within the household were lost in a shock. For Ecuador and Ghana, we present information on whose assets were sold or pawned as part of a coping strategy and we compare the coping strategies of spouses in Ghana and Karnataka. Finally we investigate whether women participate in the decision to sell assets. These analyses demonstrate how gender mediates the relationship of shocks and assets. In addition, the three countries are at differing levels of development and people experience different shocks and use different coping strategies. By examining the relationship of shocks and assets across these three countries, similarities and differences emerge.

Literature Review

Many studies simply analyze one type of shock, such as health shocks (Asfaw and von Braun 2004); environmental shocks such as natural disasters (Carter et al. 2007; Mozumder et al. 2008); agricultural shocks (Dercon and Christiaensen 2011); or income shocks (Kazianga 2012). While these provide in-depth information on households' experiences and responses to specific shocks, they do not address the entire breadth of shocks faced by households.

Generally, health shocks are among the most frequent and most devastating faced by households. A study in Laos finds that pest infestations are the most common shock, affecting 25% of surveyed households. Illness follows closely as the second most frequent shock, affecting 23% of households (Wagstaff and Lindelow 2013). The severity of the shocks, as indicated by income losses and costs borne by households thereof, is highest for illness and death. The authors also find that shocks due to natural and environmental events and health shocks are much more common than economic and political shocks. Analyzing panel data in Indonesia, Kim and Prskawetz (2009) find that the most frequent shocks are death, sickness, and crop loss, with natural disaster, unemployment, and price falls being much less common.

¹ Women are especially vulnerable to certain shocks, including the death of a spouse and the threat of divorce. In many countries, widowhood and divorce are associated with female poverty (Dreze and Srinivasan 1997; D'Souza 2000; Fuwa 2000; Peterman 2012). The rise of HIV/AIDS, coupled with limited economic opportunities, puts many widows and their children at risk of destitution (Aliber and Walker 2006; Drimie 2002; Muchunguzi 2002).

Conceptually, such direct asset losses need to be differentiated from the sale or pawning of assets that are part of a coping strategy. For example, someone might sell an asset in order to pay the hospital bills following a health shock. For some shocks, however, this distinction is less clear. A drought may either directly result in the death of livestock, or livestock may be sold during a drought to cope with the economic distress.

Households use a range of coping strategies to deal with shocks; in many cases, assets may play a key role. One of the main reasons households acquire and accumulate assets is their function as a store of wealth that can be sold or pawned to cope with shocks. The sale of productive assets in particular can entrench households in a downward spiral by diluting a key source of income. Distress sales of land or livestock are typically indicators of a steep drop into poverty. Other assets—like jewelry—may also be sold or pawned in response to shocks, but with relatively lesser economic impacts at the household level.

Livestock holdings often decrease as a result of shocks, especially environmental shocks (such as droughts). As mentioned above, it could be the case that the animals die due to the drought or are sold in response to it, but the sale may not always help the household overcome the economic distress. For example, Verpporten (2009) finds that households in Rwanda sell cattle in response to covariate income shocks, but this provides only limited insurance. One study in the West African semi-arid tropics finds that livestock sales barely compensate for the losses in real income resulting from drought and crop failure, compensating for at most 30% of the shortfall in income from crop production (Fafchamps, Udry, and Cuzaks 1998). In Zimbabwe, Hoddinott finds that over half of those that had more than two oxen sold at least one following a drought, whereas only 15 percent of those owning only one or two sold one. Thus, they were protecting their ability to farm in the following season.

In the broader context of social protection policies, in Laos, Wagstaff and Lindelow (2013) considered the frequency of using different coping strategies, including assistance from the government, assistance from NGOs/other households, and health insurance, as well as more traditional strategies such as dissaving and the sale/pawning of assets. They find that health shocks trigger more coping strategies than non-health shocks. Dissaving is the most frequently used coping strategy, with borrowing and receiving assistance from other households the second most common. Few respondents reported having sold assets or receiving assistance from the government or NGOs. The absence of state support in particular signals the inadequacy of social protection programs in helping households cope with shocks. Similarly, a long-term study of pastoralist households in East Africa finds that while livestock holdings decrease significantly during a drought period, there was no evidence of households liquidating other, smaller assets to compensate for livestock losses (McPeak, Little, and Doss 2012).

In an analysis of which types of shocks trigger different coping strategies, Yilma et al. (2014) found that one third of households in Ethiopia who experienced a shock sold assets (including food stocks.) The share of households that sold assets did not vary across the different shock categories. Selling assets was the third most common response, behind decreasing food consumption and dissaving.

In sum, selling assets is not always a household's principal response to shocks. Instead, households employ other means—like borrowing, dissaving, and reducing consumption—so that they can protect their assets for as long as possible to be able to recover from the shock and use the assets to produce income. This explanation fits with the recent literature on asset poverty traps, which posits a “threshold level of asset ownership”. Households well below the threshold are more likely to liquidate their already-low stock of assets to meet basic needs and respond to shocks, thereby furthering their inability to move out of chronic asset poverty. Those on the margin of the asset poverty threshold will generally cope in other ways and sell assets only as a last resort. Households well above the threshold, however, are capable of retaining their assets even during shocks, and can eventually accumulate additional assets and increase their incomes. Thus, the models predict that there are multiple equilibria depending on the initial level of assets. A key policy implication of asset poverty traps is that programs that provide households additional assets but do not move them above the asset threshold will generally be ineffective. Empirical evidence on asset poverty traps is mixed (Lybbert et al. 2004; Giesbert and Schilder 2012; Naschold 2012; Quisumbing and Baulch 2009; and Dillon and Qinnones 2010).

The literature discussed above does not explicitly consider gender. Most gendered analysis is usually reduced to comparing households based on the sex of the household head.² But it may be important to consider whose assets are lost or sold as a result of shocks. An extensive literature documents how who owns assets affects the outcomes of household decisions (Doss 2005; Quisumbing and Maluccio, 2003)

Only one study to date—by Quisumbing, Kumar, and Behrman (2011)—has explicitly examined whether shocks affect the asset holdings of men and women differently. They find that “commonly-experienced shocks do not necessarily have the same effects across countries and on men's, women's and jointly owned assets” (p. 27). In Bangladesh, shocks that are weather-related have a larger impact on men's assets, while illnesses have a larger impact on women's assets. In contrast, in Uganda droughts have a larger impact on women's assets than on men's. The other key finding of this study is that in Bangladesh, individual assets are affected by shocks, but the impact on overall household assets is usually insignificant; in Uganda, shocks have a bigger impact overall on women's and joint assets than on men's individual assets.

Methodology and Data

The Gender Asset Gap project (GAGP) fielded representative household surveys in 2010 in Ecuador, Ghana, and in the Indian state of Karnataka to collect individual asset ownership data. The surveys employed two instruments: A household and an individual questionnaire. The first instrument collected data on household demographics, livelihoods, and an inventory of physical assets owned by members of the household. The owner of each asset was identified. The second instrument, the individual questionnaire, was administered separately to a maximum of two adult members of the household (the principal male and the principal female) and collected information on ownership of financial assets, decision-making, and marital and inheritance regimes.

² For example, see Kumar and Quisumbing (2013).

In Ecuador, the sample of 2,892 households is nationally representative of rural and urban areas; a total of 4,668 persons completed the individual questionnaire. In Ghana, a total of 2,170 households were surveyed and 3,288 persons answered the individual questionnaire; the survey is representative of the ten administrative regions of the country. In Karnataka, a total of 4,110 households and 7,185 individuals were surveyed across the rural and urban areas of nine districts covering all agro-climatic zones of the state.

The structure of the shocks module differed across the three countries, based on insights gained during extensive field-testing in each country. In Ecuador, shock-related questions were asked in the household module and the respondents included the principal male, the principal female, or the principal couple together. If a household lost assets as part of the shock, they were asked whose assets were lost. In Karnataka and Ghana, the shocks-related questions were asked in the individual level questionnaire, so each respondent provided separate information on shocks. In Karnataka, respondents were asked about their personal experience of shocks. For example, respondents were asked, “Did you experience any of these shocks in the last five years?” and “Did you lose any assets which you owned individually or jointly?” Ghana’s question, while asked of two respondents separately, asked whether the respondent’s *household* had experienced a given set of shocks (similar to Ecuador’s). It asked whether the *household* lost any assets; though, like Karnataka’s, it did not ascertain whose assets were lost.

A range of possible shocks and coping strategies were enumerated in the questionnaire and they differed across the countries, since each list was the product of qualitative research undertaken in the six months preceding the surveys. Generally, shocks could be easily aggregated into consistent categories across the countries. Table 1 outlines how the shocks were aggregated. The one set of shocks treated most inconsistently across the three surveys was that involving the loss of livestock. Whereas India distinguished between livestock lost due to floods or droughts from those lost due to other reasons (disease, theft, strayed away, natural death), Ghana combined both into one separate category (death of livestock) while Ecuador subsumed these in most cases into the result of natural disasters, with a few cases of death due to disease appearing under “other.” Theft of livestock in the case of Ecuador and Ghana are considered under the general category of “crime”.

Karnataka is the only one of the three sites that included the category of social functions as possible economic shocks to households. In Ecuador, weddings entail major expenses as well, but households tend to plan for these in advance by saving for them and do not consider their realization to be a shock.

Profiles of Households and Patterns of Asset Ownership

Profiles of Households

Ecuador is the most urbanized of the three countries (75%) and Ghana the least (38%). The average household size in Ghana is the smallest among the three countries at 3.3, as compared to 4.1 in Ecuador and 4.6 in Karnataka. Despite its low average household size, Ghana has the highest average child dependency ratio (0.61) compared to 0.45 in Karnataka and 0.17 in

Ecuador. While the majority of households are headed by a primary couple in all three countries, in Ghana and Ecuador households headed by a sole female make up an important share, 36% and 25% respectively, compared to Karnataka's 18%. Households headed by sole males are a notable share only in Ghana where they constitute 21% of the total.

Wealth quintiles were constructed based on the value of gross physical and financial assets of households. In Ecuador the differences in the quintile distribution between urban and rural households are not significant, although rural households are under-represented (17%) and urban households (21.2%) are over-represented in the wealthiest quintile. In contrast, there are significant differences in the wealth distribution of rural and urban households in Ghana and Karnataka. Rural households are over-represented in the two lowest wealth quintiles in Ghana (43.1%) whilst urban households are over-represented in the two wealthiest quintiles (45.7%). In Karnataka, poverty is more of an urban phenomenon; more than half of urban households are found in the two lowest wealth quintiles and 44.2% of rural households are located in the two wealthiest quintiles.

Patterns of Asset Ownership

Across the three countries, patterns of asset ownership vary considerably in a number of dimensions.³ The form of ownership – whether assets are owned individually by men, individually by women, or by couples -- varies, in part, due to rules regarding marital property. In Ecuador, the default marital regime is partial community property, which means all property acquired during marriage, other than inheritances, is considered the joint property of both spouses. This regime applies both to couples that are formally married and those in consensual unions. Thus, in Ecuador the most common form of ownership for major assets is joint ownership by a couple. Both Ghana and Karnataka are characterized by separation of property marital regimes, which stipulate that all property is owned individually, including the property purchased during marriage. Relatively little property is jointly owned by spouses in these two countries.⁴ In general, in Ghana and Karnataka far fewer women own assets compared to men. Besides the separation of property regime, other reasons for this include cultural norms that ensure women do not inherit property even when legislation backs them (in India) and wide gaps between men and women in workforce participation and wage rates (which would affect the ability to purchase property).

The incidence of ownership of different assets, for both adult men and women, varies across countries. Ecuador's heavy urbanization, along with its high concentration of landholdings, results in only 7% of men and 7% of women owning agricultural land.⁵ In Ghana, where much of the agricultural land is family land (not owned by individuals or households but rather by communities or lineages), only about 22% of men and 11% of women own agricultural land. In

³ This section draws heavily on Doss et al. (2011).

⁴ See Deere et al. (2013) about how marital regimes then interact with inheritance regimes so that married women own a much smaller share of couple wealth in India and Ghana than in Ecuador.

⁵ A person is considered a landowner whether he or she owns land individually or jointly with a spouse or other person.

Karnataka, while a relatively high proportion of men overall are landowners (37%), only 7% of women own land.

The patterns of ownership of the principal residence are quite different. In Ecuador, men and women are equally likely to own their residence, and ownership levels are much higher than in the other two countries. Overall, 34% of men and 36% of women own their residences. In Ghana, fewer people own their principal residence and the gender gap is noticeable: 30% of men and 16% of women own their residence. The gender gap is highest in Karnataka, where 42% of men but only 16% of women own their residence.

In Karnataka, 42% of men and 37% of women are reported as owning large livestock while relatively lower proportions own small livestock. However, the gender differences in both small and large livestock ownership here are negligible. This is largely due to the fact that livestock is typically reported as belonging to the entire household. So in a household that owns any livestock, all adults are usually considered owners. In Ghana, many more people are owners of small livestock than of large livestock. About 25% of men and 14% of women own small livestock, whilst 5% of men and less than 1% of women own large livestock. In Ecuador, a relatively small share of the adult population owns either large or small livestock, given the more urban nature of the country (although 13% of men and 20% of women own and raise poultry).

A much higher share of people in Ghana own businesses than in Karnataka. 40% of all women and 20% of all men in Ghana are business owners. The comparable numbers for Karnataka are only 12% and 5%. Ecuador is somewhat in between, with 23% of women and 26% of men owning businesses.

Given the gendered patterns of asset ownership, the relationships of shocks and assets will be mediated by gender.

Shocks Experienced

Shocks by Country

In Table 2, a household is recorded as experiencing a particular type of shock if the shock was experienced at least once by the household in the five years preceding the survey. Overall, households in Ecuador were much more likely to report they had experienced a shock than households in either Ghana or Karnataka. In each country, the shock experienced most frequently by households was illness, followed by deaths. This is consistent with the literature discussed earlier.

Shocks by Socio-Economic Status

The household assets survey provided detailed information on the value of assets owned by households. We would expect household wealth to constitute a much more precise measure of socio-economic differentiation than an index of major assets owned or of amenities—as is commonly utilized in the literature—since the valuation of assets takes into account potential differences in asset quality.

Wealth quintiles can be used to analyze the extent to which wealth affects whether households experience shocks. A disadvantage of utilizing household wealth quintiles as a measure of socio-economic differentiation for the study of shocks and coping strategies is that the quintile distribution is based on wealth holdings in the survey year (2010) and hence already reflects the outcome of a household potentially having lost assets as part of a shock or as a coping strategy in response to one during the previous five years (2005-10). Nonetheless, this information does allow us to examine whether asset-poor households are more likely to have experienced shocks; if this were to be the case, having experienced shocks could be one of the explanations for their relative asset poverty.

Table 3 presents the data on the share of households by wealth quintile that experienced at least one shock during the previous five years. The asset -poorest households are not the quintile most likely to have experienced a shock. In Ecuador, the highest incidence of shocks is reported by households in quintile 3, although the differences by quintile are not statistically significant. In Ghana, where the differences are significant, the lowest incidence of shocks (36%) is reported by households in quintile 1, and the highest (48%) by households in quintiles 3 and 5. In Karnataka, the highest incidence (58%) is reported by households in quintile 4, and the differences by quintile are also significant. These trends suggest that the asset-poverty of the very poorest households is likely explained by factors other than economic shocks, such as chronic poverty.

Loss of Assets

Direct loss of assets

One direct result of shocks may be the loss of assets. In Table 4 we examine whether there are differences by quintile groupings in having lost assets as part of a shock. Overall, the incidence of losing an asset as a direct result of a shock is higher for the upper wealth quintiles than for the lower ones, and these differences are statistically significant in the case of Ghana and Karnataka, with quintiles 4 in Ghana and 5 in Karnataka reporting the highest incidence of losing assets. In Ecuador, the wealthiest quintile also shows the highest incidence, although the differences by quintiles are not significant. This trend most likely reflects the fact that wealthier households by definition own more assets to lose while poorer households would have fewer assets to lose.

The types of shocks that result in asset loss vary widely across countries. Table 5 shows that in Ecuador and Ghana, the most common asset shocks are crime/accidents (Ecuador 67%; Ghana 38%). In Karnataka, the most common asset shocks are natural disasters (67%), which accounts for rural areas reporting higher asset losses than urban areas.

It is also important to know what types of assets households lost due to the shocks. The adverse impact of losing productive assets will be much greater than that of losing, for example, consumer durables. Table 6 indicates the distribution of the type of assets lost. The loss of immovable property is relatively low in Ecuador (3%) and Ghana (5%). In Karnataka, however, immovable property constituted 21% of the assets lost due to a shock.

In Ecuador, the most common assets lost are money/financial assets and consumer durables; in Ghana, it is livestock and money/financial assets. Households in Karnataka reported a much smaller set of assets lost; harvests were the most common assets lost, followed by immovable

property. The loss of harvest or standing crops in Karnataka is mostly as a result of floods or droughts, which would have imposed a substantial burden on livelihoods and households' economic security.

Thus far, we have focused on asset loss at the household level. Yet, as noted above, men and women have different patterns of asset ownership. In the Ecuador survey, a follow-up question was asked regarding whose assets were lost in the shock. Table 7 shows the distribution of assets lost by the sex of the owner. In most cases, the assets lost were jointly owned by the couple. This is not surprising, given the prevalence of joint ownership of assets among couples. However, in the case of businesses as well as agricultural land, those lost as part of the shock were more likely to have been owned by a woman individually than by a man or jointly by a couple. Although representing only a handful of cases, separation or divorce is the shock most likely to result in the loss of agricultural land by a woman, and is also the second shock leading to loss of businesses by women (after business failures).

Coping Strategies

As noted earlier, assets may play an important role as coping strategies in the face of a shock. Table 8 presents the percentage of households who experienced a shock that used each type of coping strategy. Four broad observations can be made.

First, a large proportion of households do not report using any coping strategy when a shock occurs. The incidence of this is quite high in Ghana (47%), and relatively lower in Karnataka (24%) and Ecuador (15%). Households will probably not resort to using any coping strategies when the shock does not result in a substantial decline in income or asset wealth. The failure to take any specific action when a shock occurs is not the same across the different shock types. In Ecuador, specific action is likely not to be taken when there are natural disasters and theft or destruction of assets shocks. In Ghana, this occurs when there is loss of assets either through theft, destruction, or death. In Karnataka, the failure to take action occurs when the shocks are other loss of assets, death, or dissolution of marriage/consensual union.

Second, even though a wide range of coping strategies are reported, the same few strategies are utilized by a large proportion of households. The most common strategies are receiving assistance from family and/or friends, borrowing, and drawing upon savings.

Third, physical and financial assets play different roles in coping with shocks across the three countries. The data suggests that it is primarily in Ecuador, a relatively high-income country, and to some extent in Ghana, where savings are important in mitigating risk. The drawing down of savings is widely used in Ecuador and Ghana, while in Karnataka it is only used to a very limited extent when there are illness/injury, death, and natural disaster shocks.

Among the three countries, households in Ghana (11%) are more likely to sell or pawn assets than in Ecuador (4%) or Karnataka (4%). This suggests that, in contrast to Ecuador and Karnataka, households in Ghana may be more likely to acquire assets specifically as a buffer against shocks. That is, asset sales may not always be distress sales but may be a planned coping strategy. The sale or pawning of assets is used as a strategy across the entire spectrum of shocks,

but they occur more frequently when there are income shocks in Ecuador and Karnataka, and illness/injury, death, or other shocks in Ghana

The coping mechanism that is most common in Karnataka is borrowing. Borrowing from formal channels such as banks constituted a negligible share of the overall borrowing, suggesting that either households were unable to provide satisfactory/adequate collateral to access these loans, or that formal institutions typically do not lend to meet households' crises needs. Much of the borrowing was thus from informal sources, such as local moneylenders, traders, employers, relatives, and friends. Precisely because of their informal nature, these sources of credit are relatively convenient to access, with little or no paperwork involved. For instance, local moneylenders typically provide loans against some collateral; and merely depositing the house/land documents or jewelry with them can enable households to access ready cash immediately. Traders and employers also provide loans quite easily against future purchases and labor, respectively. The cost of such credit, however, is higher than market interest rates (often usurious), which can keep households locked in debt for years.

Finally, few households report the use of formal social protection mechanisms—including assistance from the government and insurance—in all three countries.

In none of the countries are there significant differences by quintiles in the sale of assets as part of a coping strategy. As Table 9 shows, the trends suggest that in Ecuador and Ghana this coping strategy is slightly more common among the middle quintile groups, and among the upper quintiles in Karnataka. This again suggests that households did not become asset poor primarily by experiencing a shock that required them to sell assets in the previous five years.

Intrahousehold Analysis of Coping Strategies

To gain further insight into the gendered dimension of assets and shocks this section investigates the extent to which spouses in Ghana and Karnataka report similar coping strategies for the shocks that both reported. [The survey wasn't designed to answer broader questions about agreement on coping, but we can answer the narrower question about the extent to which husbands and wives who have reported the same shock, also report using the same coping strategy.]

In Ghana, couples reported up to four coping strategies, while in Karnataka, no one listed more than two. Table 10 shows the distribution of the number of shocks listed by each spouse. In terms of the number of coping strategies, there was by and large agreement between spouses, with the large majority in Ghana and Karnataka reporting only one coping strategy for the shock. The patterns in Ghana are quite symmetric; in Karnataka, it was more common for wives to report two strategies and husbands only one.

Table 11 shows that although the majority of couples used the same number of coping strategies in response to the shocks, these were not always the exact same strategies. In fact, in more than a third of the cases in Ghana and Karnataka, spouses did not either use the same number of coping strategies, or used different strategies even when the number they employed was the same. In Karnataka, wives were less likely to borrow and more likely to obtain assistance from family or friends than husbands. Women in Ghana were less likely than their partners to draw down

savings or sell assets. This is not surprising since women have lower savings balances than men and are less likely than men to be asset owners (Doss et al. 2011). Women were, however, more likely to receive assistance from family or friends.

These results provide two insights. First, even when husbands and wives report the same shock, they do not always report the same response to the shock. This suggests that not only do they experience shocks differently, as we saw above, but also that they react differently to them, utilizing different coping strategies. Second, questions about responses to household shocks will receive different answers depending on who is asked.

Disaccumulation by Gender

In this section we explore who the owners of sold assets are and whether the assets are replaced or reclaimed.⁶ In Ecuador most of the assets which were sold consisted of consumer durables (39%), followed by livestock (20%), non-agricultural land parcels (10%), and vehicles (8%). Table 12 presents information on the sex of owners of sold assets. Overall, an almost equal proportion of assets sold were either jointly owned (38%) or owned individually by women (36%), with only 26% owned individually by men. Nonetheless, there are important differences by gender depending on the specific type of asset. For example, all of the non-agricultural land parcels that were sold and the majority of the consumer durables sold were owned by women alone. In contrast, the majority of the businesses and vehicles sold were owned only by men. Compared to the overall distribution of asset ownership in Ecuador (Deere and Contreras 2011), female owners are over-represented among those who sold non-agricultural land parcels. Male owners are over-represented among those who sold a business, since women are the majority of business owners in this country (although not of business wealth).⁷

In Ghana, almost all the sold assets were individually owned (Table 12). There is an almost even split in the share of assets that are individually owned by women (46%) and men (49%). Less than 5% of these assets were jointly owned. [The pattern of ownership of sold assets in both countries is similar to the overall pattern of asset ownership. In Ecuador, joint ownership is predominant while in Ghana individual ownership prevails (Doss et al. 2011).] Most sold assets in Ghana were livestock, followed by consumer durables and rights to the harvest. The majority of owners who sold agricultural land, livestock, vehicles, agricultural equipment, and rights to the harvest were men and all the owners of sold businesses were women. Owners of sold consumer durables were predominantly women. An item that features prominently among consumer durables sold by women is printed fabric, usually 6 yards in length.

Individuals who sell or pawn assets as a coping strategy are not always able to rebuild their asset stocks. In Ecuador about 26% of assets are recovered, while in Ghana and Karnataka the proportions recovered are quite low at 14% and 11%, respectively.

⁶ Karnataka is not included in the discussion of disaccumulation because so few assets were sold. What is available indicates that the asset most frequently sold or pawned to cope with shocks was jewellery. Nearly half of all assets thus disposed were jewellery, which has significant gender implications given that jewellery is predominantly owned by women.

⁷ Unfortunately, we do not have information on the value of the assets sold or pawned, which would allow us to do a more detailed analysis of disaccumulation by gender.

Do owners participate in the decision to sell their assets? Overall, the answer is “yes” for Ecuador and “not always” for Ghana. In Ecuador all individual owners of assets participate in the sales or pawning decision. Although most owners participate in the decision, joint decision-making is quite common among individual asset owners in Ecuador.

In Ghana, almost all owners participate in the decision to sell or pawn their asset and decisions are made individually even though a few of the sold assets were jointly owned. A slightly higher proportion of women (17%) compared to men (14%) do not participate in the sales decision.

Joint decision-making is quite common in Karnataka for all assets. Though women participate in the decision to sell dwellings and agricultural land, very few individually make the decision to sell agricultural land and none individually make the decision to sell their dwellings. This is in sharp contrast to the pattern of the sales decisions for consumer durables. These are assets that are usually jointly owned by all members of the household. However, more than half of the decisions to sell consumer durables are made individually by women. Men only participate in this decision as joint decision-makers.

Discussion and Policy Recommendations

We have used a comparative framework to examine the kinds of shocks experienced by households, the coping strategies pursued, whether assets were sold or pawned as coping strategies, and whose assets were sold. Probably the most important general finding is how common it is for households to have experienced a shock of some kind in the previous five years: 76% of households in Ecuador, 53% in Ghana, and 50% in Karnataka.

Developing a typology of shocks based on asset losses is important because it brings to the fore the fact that shocks can deplete asset stocks in two ways. The first is when the shock directly or indirectly reduces the stock of assets. We find that even though the most frequently reported shocks by all household types are health and death shocks, a substantial proportion of households reporting shocks in all three countries experience shocks involving the loss of assets: 27% in Ecuador, 29% in Ghana, and 27% in Karnataka. The second way that households and individuals lose assets is when assets are sold or pawned as a coping strategy to deal with the economic impact of a shock.

The extent to which women are more likely to lose individually-owned assets than men in a shock—either directly or as a result of a coping strategy—must be analyzed in the context of how common it is for women to own major assets. In Ghana and Karnataka, women are less likely than men to own immovable property and, on average, women are less wealthy than men. In Ecuador, largely because of the partial community property marital regime and more gender-equitable inheritance practices, the gender asset and wealth gaps are smaller. Assets that are sold or pawned are generally not replaced. Women are therefore vulnerable to a permanent erosion of their asset base when shocks occur.

All three countries have formal social protection mechanisms that provide social insurance, social assistance, and support to workers in the labor market. However, the incidence of the use of formal social protection mechanisms—in particular, assistance from government—is reported to be very low in all three sites.

A wider range of insurance packages must be designed to protect directly against asset shocks, be it insurance against weather shocks or property insurance against catastrophes, accidents, or crime. In particular, crop and livestock insurance programs are very important for rural households to cope with the impact of covariate shocks such as floods and droughts. These policies must be designed taking into consideration the gendered pattern of asset ownership.

Almost all shocks burden households with reduced income, increases in expenditures, or both. This signals a need for greater financial inclusion, specifically focusing on households vulnerable to shocks. In Ecuador and Ghana, utilizing accumulated savings is an important coping mechanism. In Karnataka, however, households typically resort to informal borrowing to weather crises, which could gradually have a debilitating impact on future consumption due to exploitative interest rates on these loans. Doss et al. (2012) suggest that widening the network of financial institutions, particularly banks, and designing innovative savings products to address the specific needs of poorer households would help bring cash and other informal savings into the formal system. In the Indian context where the economic burden imposed by expenditure at wedding ceremonies can tend to destabilize households, specialized savings products could also be designed for meeting them.

The incidence of asset loss through theft, robbery, and cheating suggests that there is a need to strengthen the institutions of law and order to protect both physical and financial assets, particularly in Ecuador and Ghana. However, police services tend to be concentrated in urban areas; thus concerted efforts must be made to increase policing in the countryside. The relatively high incidence of livestock deaths in India and Ghana also points to the need for an improvement in the provision of veterinary services (via programs that target both men and women who rear the livestock).

The use of different coping strategies by husbands and wives to respond to the same shocks may be the outcome of a joint strategy of the couple. However, in countries where assets tend to be individually and not jointly owned the impact of the agreed upon strategy will impact differentially on each spouse. Interventions to support households in the aftermath of a shock need to be cognizant of the intra-household dynamics to ensure that both spouses have equal opportunity to recover from the shock.

Finally, women's property rights and the enforcement of those that they currently have must be strengthened, not only to prevent the unjust loss of marital assets in the case of household dissolution, but also to facilitate women's accumulation of assets so as to reduce their vulnerability to shocks. Policies that promote women's labor force participation as well as those that improve their working conditions and quality of employment will also help in asset accumulation and strengthen their overall ability to withstand shocks.

Table 1. Definition of Shock Categories, by Country

	Ecuador	Ghana	Karnataka
Illness	Major illness of a household member or close family member	Major illness of a household or family member; injury from major accident	Serious illness/injury to household member (resulting in hospitalization or reducing normal activities)
Death	Death of a household member or close family member	Death of a household or family member	Death of household member (due to reasons other than drought/flood)
Crime and accidents	Robbery/being cheated/getting conned; crime; accident; fire	Destruction of property by fire; theft of livestock/harvest/inventory, etc.	Theft, fire, or destruction of property; being cheated
Other loss of assets	N/A	Death of livestock	Crop failure; loss of livestock; loss of land (for all three, only listed here if not due to drought/flood); other property loss-
Loss of income	Loss of job or business; decrease in remittances	Loss of; decrease in remittances received; major price decrease for agricultural, artisanal, or business product; business failure	Loss of principal job or income source; decrease in remittances; business failure; decrease in prices of agricultural products; steep rise in price of essential commodities; other financial problems
Change in household structure	Abandonment, separation, or divorce	Abandonment, separation, or divorce	Loss of able-bodied household member (through marriage, divorce, abandonment, dissolution of joint family, etc.)
Social functions	N/A	N/A	Wedding ceremony; other social and religious functions
Natural disasters	Major natural disaster (drought, flood, or volcanic eruption)	Major natural disaster (drought, flood)	Flood; drought
Other	Death of livestock due to disease;	Court cases; family disputes; arrest;	Displacement/eviction; loan/credit problems; all

	lawsuits; all other	emotional distress; all other	other
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Table 2. Percentage of Households Experiencing Shocks, by Country

	Ecuador	Ghana	India
Illness	44.8	19.4	25.5
Death	38.2	11.9	11.2
Crime/Accident	20.4	6	1.1
Other asset loss	N/A	5	2.9
Loss of income	16.5	4.4	2.7
Change in household	8.4	3.3	1.1
Social function	N/A	0	5.4
Natural Disasters	5.7	1.9	9.5
Other	0.2	0.6	1.2
None	23.6	47.5	49.8
N= Households	2,892	2,084	4,048

Table 3. Household Wealth Quintiles and Incidence of Shocks

	Households reporting a shock (%)		
Quintile	Ecuador	Ghana	Karnataka
Q 1	75.4	36.0	48.0
Q 2	77.0	42.6	46.4
Q 3	80.5	48.0	50.1
Q 4	76.7	46.6	57.7
Q 5	72.2	48.2	49.1
Total	76.3	44.2	50.3
N= HHs	2,892	2,169	4,048
p-value =	0.134	0.026**	0.002***

Note: P-values based on Chi-squared test. ***p<.000; **p<.05; * p<.10.

Table 4. Percent of Households who experienced Shocks who lost assets, by Wealth Quintile

	Median household wealth (US\$) ^a	Households losing assets as part of shock (%)	Median household wealth (US\$) ^a	Households losing assets as part of shock (%)	Median household wealth (US\$) ^a	Households losing assets as part of shock (%)
Wealth Quintiles	Ecuador		Ghana		Karnataka	
Q 1	466	21.5	208	21.9	527	8.6
Q 2	2,970	26.0	972	32.0	3,256	21.9
Q 3	9,323	28.2	2,606	25.3	9,078	31.3
Q 4	23,920	28.3	6,480	34.4	21,591	30.8
Q 5	61,782	31.3	31,331	30.9	67,678	40.8
Total	9,690	27.1	2,655	29.1	9,190	27.0
N= HHs	2,892	2,210	2,169	970		2,136
Chi-squared		0.186		0.09		0.000

^a For Ghana and Karnataka, based on PPP conversion of Cedis and Indian Rupee values, respectively.

Table 5. Distribution of Shocks Resulting in Asset Loss

	Ecuador	Ghana	Karnataka
Crime and accidents	67.0	38.4	6.5
Loss of property due to other reasons	N/A	35.5	16.8
Income shocks	12.6	9.6	9.8
Abandonment/divorce/separation	7.9	2.7	0
Natural disasters	11.9	10.3	67.0
Other	0.6	3.6	0
Total	100%	100%	100%
N= Shocks resulting in asset loss	673	488	738

Table 6. Distribution of Type of Assets Lost

	Ecuador		Ghana		Karnataka	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Immovable property	23	2.9	27	5.2	183	21.3
Dwelling	13	1.7	24	4.6	N/A	
Agricultural land	6	0.7	3	0.6	N/A	
Non-agricultural land	4	0.5	0	0	N/A	
Livestock	41	5.2	189	42.5	78	11.7
HH business	33	4.2	7	1.3	73	12.3
Consumer durables	229	29.2	40	10.4	N/A	
Vehicle	44	5.6	2	0.4	N/A	
Agricultural equipment	N/A		3	0.7	N/A	
Money/financial asset	254	32.5	84	19.4	N/A	
Harvest	58	7.4	79	17.9	404	54.8
Other	99	12.7	3	0.9	N/A	
Does not know	3	0.4	9	1.3	N/A	
N= Assets lost	783	100%	443	100%	738	100%

Note: In the Karnataka survey, the forms of immovable property (dwelling, agricultural land, and non-agricultural land) were not disaggregated.

Table 7. Distribution of Assets Lost by the Sex of the Owner, Ecuador

Asset lost	Male	Female	Joint/Mixed	Total	N=
Dwelling	8	21	71	100%	13
Agricultural land	20	45	34	100%	6
Non-agricultural land	48	0	52	100%	4
Livestock	13	17	70	100%	41
Business	33	44	23	100%	33
Consumer durables	18	26	56	100%	229
Vehicle	30	14	46	100%	44
Money/financial asset	31	28	41	100%	254
Harvest	8	17	65	100%	58
Other	37	19	44	100%	99

Table 8. Incidence of Coping Strategies Pursued by Household Type, Conditional on Having Experienced a Shock

	Ecuador	Ghana	Karnataka
Formal Social Protection			
Assistance from government	3.1	0.5	4.6
Insurance	4.1	1.5	0.0
Informal Social Protection: Assistance from			
NGOs, charity	1	N/A	1.6
Church	0.5	4.3	0.0
Family, friends, community	44.8	32.6	24.5
Other Coping Strategies			
Sell/pawn assets	3.6	10.5	4.1
Savings	49.7	32.6	0.4
Borrowing and salary advance	13.5	9.7	57.5
Reduce consumption	5	6.4	1.8
Changed employment	10.4	0.8	0.0
Migration, household composition	0.3	1.8	3.9
Other	0.8	1.6	3.2
Did nothing	15.1	46.6	23.9

Table 9. Incidence of Households Selling/Pawning Assets as a Coping Strategy

Wealth Quintile	Ecuador	Ghana	Karnataka
	Percent	Percent	Percent
Q 1	3.4	8.9	3.4
Q 2	2.9	10.3	3.2
Q 3	4.3	14.9	3.2
Q 4	4.1	10.0	5.0
Q 5	3.1	8.2	5.4
All households	3.6	10.5	4.1
N= Households	2,210	970	2,136
p-value	0.792	0.335	0.563

Table 10. Distribution of Shocks by Number of Coping Strategies Employed by Couples (for shocks reported by both respondents)

Number of coping strategies by husband	Ghana					Karnataka		
	Number of coping strategies by wife				Total	Number of coping strategies by wife		Total
	1	2	3	4		1	2	
1	71.9	4.9	0.7	0.5	134	85.3	7.5	195
2	4.2	9.7	1.6	0.0	28	4.1	3.1	19
3	2.1	1.6	2.0	0.0	11	0.0	0.0	0
4	0.7	0.0	0.0	0.2	2	0.0	0.0	0
Total	136	28	9	2	175	194	20	214
Chi square	p=0.000					p=0.000		

Table 11. Agreement between Spouses on Coping Strategies Employed (shocks reported by both)

Mode of coping strategies used by couples	Ghana		Karnataka	
	Percent	Number	Percent	Number
Don't use same coping strategies	36.3	60	37.6	88
Use same strategy (one)	54.5	99	59.3	119
Use same strategies (two)	7.6	13	3.1	7
Use same strategies (three)	1.5	2	0	0
Use same strategies (four)	0.2	1	0	0
Total	100	175	100	214

Table 12. Sex of Owners and Those Deciding to Sell

	N= assets sold	Sex of Owner of Asset				Sex of Person who Decided to sell				
		Male	Female	Mixed /couple	Total	Male	Female	mixed/ couple	Total	
Ecuador										
Dwelling	5	11.1	0	88.9	100%	34.7	28.5	36.8	100%	
Ag. land	11	31.2	26.8	42	100%	20	20.4	59.6	100%	
Non-agric land	2	0	100	0	100%	0	100	0	100%	
Livestock	22	11.3	16.6	72	100%	6.9	25.7	67.4	100%	
Business	6	53.1	46.9	0	100%	53.1	46.9	0	100%	
Consumer durables	43	14.7	53.3	32	100%	22	42.7	35.3	100%	
Vehicle	9	69.9	8.4	21.8	100%	21.1	8.4	70.6	100%	
Other	11	53.3	40.1	6.6	100%	48.4	31.2	20.4	100%	
Total	109	25.8	36.4	37.9	100%	22.9	33.8	43.3	100%	
		p =0.000					p = .052			
Ghana										
Ag. land	3	63.2	36.8	0	100%	81.2	18.8	0	100%	
Non-agric land	4	100	0	0	100%	100	0	0	100%	
Livestock	63	70.3	29.7	0	100%	71.3	28.8	0	100%	
Business	2	0	100	0	100%	52.7	47.3	0	100%	
Consumer durables	43	24.8	75.2	0	100%	33.5	66.5	0	100%	
Vehicle	6	50.1	20.1	29.8	100%	15.7	84.3	0	100%	
Ag. Equip	16	76.5	23.5	0	100%	89.2	10.8	0	100%	
Harvest	41	65.2	30.7	4.1	100%	64	36	0	100%	
Other	3	34.6	50.4	14.9	100%	42.7	57.3	0	100%	
Total	181	49.3	45.9	4.8	100%	53.8	46.2	0	100%	
		p=0.007					p=0.001			
Karnataka, India										
Dwelling	10					31.2	0	68.8	100%	
Ag. Land	18					52.6	2.2	45.2	100%	
Livestock	6					32.9	21	46.1	100%	
Jewelry	34					39.9	15.2	44.9	100%	
Consumer durables	3					0	51.4	48.6	100%	
Other	1					0	0	100	100%	
Total	72					38.5	10.2	51.4	100%	
						p=0.530				

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