SHOCKS, ASSETS AND SOCIAL PROTECTION: A GENDERED ANALYSIS OF ECUADOR, GHANA AND KARNATAKA, INDIA

SHOCKS, ASSETS AND SOCIAL PROTECTION: A GENDERED ANALYSIS OF ECUADOR, GHANA AND KARNATAKA, INDIA

CHERYL DOSS, ABENA D. ODURO, CARMEN DIANA DEERE,
HEMA SWAMINATHAN, WILLIAM BAAH-BOATENG AND SUCHITRA J.Y.

UN WOMEN

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LIST OF ACRONYMS AND ABBREVIATIONS

BPL   Below Poverty Line (India)

GDP   gross domestic product

HDI   human development index

GII   gender inequality index

IESS   Institute of Social Security (Ecuador)

ILO   International Labour Organization

LEAP   Livelihood Empowerment against Poverty (Ghana)

NGO   non-governmental organization

NHIS   National Health Insurance Scheme (Ghana)

NRHM   National Rural Health Mission (India)

NREGA   National Rural Employment Guarantee Scheme (India)

SSC   Peasant Social Security System (Ecuador)

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EXECUTIVE SUMMARY

This study explores the shocks experienced by households and the coping strategies employed by them. Women and men living in the same household may not always experience shocks or be impacted by them in the same way. The coping strategies employed depend on the nature of the shock, who experiences the shock and the resources that are available to respond to the shock. 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. Different coping strategies can have different welfare implications in the long term.

Drawing on representative household surveys in Ecuador, Ghana and Karnataka, India, this study analyses the relationship between assets and shocks. Shocks can result in two types of asset loss: Assets may be lost as a direct result of the shock, such as through a fire or livestock loss due to disease; and coping strategies may involve the sale or pawning of assets. We provide 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. Finally, the study analyses the extent to which households in Ecuador and Karnataka participate in selected social protection programmes when they experience shocks.

We investigate the gender dimensions of shocks and coping strategies using two levels of analysis. The first is a household-level analysis. Most studies that include a gender analysis of shocks and coping strategies simply compare female- and male-headed households, grouping households with couples who are either married or in a consensual union with those

headed by sole, unpartnered[1] men. Calling all of these 'male-headed' confounds issues of headship with household composition. Instead, we classify households into three groups: those headed by unpartnered women (female-headed households), those headed by unpartnered men (male-headed households) and those with a principal couple. This approach makes it possible to compare similar categories of households (headed by unpartnered women and unpartnered men).

The second level of analysis is the intrahousehold analysis. We compare the responses to questions on shocks and coping strategies provided by couples in the household. We are thus able to establish whether women and men report shocks and whether they report the same shocks and utilize the same coping strategies when hit by the same shock. The intrahousehold analysis is also important from a methodological perspective. It demonstrates that women and men often provide different answers to survey questions regarding household shocks and coping strategies, and thus it matters whom you interview.

Shocks experienced

Overall, households in Ecuador are much more likely to report that they had experienced a shock than households in either Ghana or Karnataka. Sole female-headed households are no more likely to experience shocks than other headship types. In both Ghana and Karnataka, it is couple-headed households that are

most likely to report having experienced some type of shock.

Irrespective of how the incidence of the occurrence of a shock is measured, whether by the number of households that report the shock or the number of

shocks that occurred, illness, followed by death were those most frequently experienced in each country. The share of households that reported severe shocks is highest in Ecuador (56 per cent) and lowest in Ghana (33 per cent).

Intrahousehold analysis of shocks

In Ghana and Karnataka, husbands and wives experience shocks and their impacts in different ways.[2] The likelihood that both spouses will report that the same shock occurred is low in both countries (less than 10 per cent in Karnataka and 27 per cent in Ghana). Shocks are more likely to be reported by husbands only than by wives only. There is some degree of agreement between couples on the number of shocks they have experienced in the reference period but much less agreement on what the specific shocks and their impacts on them are. This suggests that information on shocks collected only from one individual in a household—typically the head of the household (who would generally be a male)—would both underestimate the incidence of shocks experienced by individuals as well as mask the nuances of the impact on them.

Loss of assets

Even though many more shocks are reported in Ecuador, only 17 per cent of shocks result in an asset loss. In contrast, in Ghana and Karnataka, 24 per cent of shocks do so. In both Ghana and Karnataka, male-headed households are more likely to suffer asset losses as a direct result of the shock than either the principal couple or, particularly, female-headed households. More men than women own assets, and female-headed households are concentrated among the poorest quintiles.

Overall, the incidence of losing an asset as a direct result of a shock is higher for the wealthier quintiles than for the poorer ones, and these differences are statistically significant in the case of Ghana and Karnataka. This finding is not surprising since wealthier households are more likely to have assets to lose. In Ecuador and Ghana, the most common shocks that result in asset loss are crime/accidents (Ecuador, 67 per cent; Ghana, 38 per cent). In Karnataka, the most common shocks that result in asset loss are natural disasters (67 per cent). 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 report a much smaller set of assets lost; harvests are the most common, followed by immovable property.

Information on whose assets were lost was collected only in Ecuador. 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, for both businesses and agricultural land, assets lost as part of the shock were more likely to have been owned by a woman individually than by a man or jointly.

Coping strategies

Four broad observations can be made on coping strategies in the three survey sites. 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 per cent) and relatively lower in Karnataka (24 per cent) and Ecuador (15 per cent). If the shock does not result in a substantial decline in income or asset wealth, households may not need to use a coping strategy.

Second, even though a wide range of coping strategies is reported, the same few strategies are utilized by most households. In all three sites two strategies are most frequently used across the different shock types: in Ecuador and Ghana, the use of savings and assistance from family, friends or community; and in Karnataka, borrowing and assistance from family, friends or community. The coping strategy used depends, in part, on the type of shock that occurred.

Third, physical and financial assets play different roles in coping with shocks across the three sites. In both Ghana and Ecuador, households draw on their savings to cope with shocks; however, in Karnataka, they are unlikely to do so. The data suggests that it is primarily in Ecuador, a relatively high-income country, and to some extent in Ghana, that savings are important in mitigating risk. Among the three sites, Ghana has the highest proportion of households that sell or pawn assets as a coping strategy (11 per cent), while Ecuador emerges as having the lowest incidence of use of this strategy (4 per cent). This suggests that in contrast to Ecuador and Karnataka, households in Ghana are more likely to acquire assets as a buffer against shocks. Assets sales may not always be distress sales but may be a planned coping strategy.

Fourth, it is worth noting that formal social protection mechanisms—such as assistance from the government and insurance plans—are not reported by many households in the three sites as a coping strategy. Less than 1 per cent of households in Ghana report receiving assistance from government agencies, as compared to 3 per cent in Ecuador and 5 per cent in Karnataka. Less than 5 per cent of households in Ecuador and 2 per cent of households in Ghana report using insurance instruments.

Irrespective of the type of shock, female-headed households in Karnataka are significantly less likely to borrow and receive assistance from the government in the event of shocks than male-headed and couple households. This suggests that unpartnered women face credit constraints and are less able to take advantage of even the limited state social protection. In Ghana, households headed by women are significantly more likely to receive assistance from family or friends and to borrow compared to other household types. Couple households, on the other hand, are more likely to make recourse to their savings.

Dis-accumulation by gender

In Ecuador, an almost equal proportion of assets sold are either jointly owned (38 per cent) or owned individually by women (36 per cent), with only 26 per cent owned individually by men. In Ghana, nearly all the sold assets are individually owned. There is an almost even split in the share of assets that are individually owned by women (46 per cent) and men (49 per cent). Less than 5 per cent of the assets are jointly owned. The pattern of ownership of sold assets in both countries is similar to the overall pattern of asset ownership.

Do owners participate in the decision to sell their assets? Overall, the answer is "yes" for Ecuador and "not always" for Ghana. Although most owners participate in the decision, joint decision-making is quite common among individual asset owners in Ecuador. In contrast to Ecuador and Karnataka, all sales decisions in Ghana are made individually even though a few of the sold or pawned assets were jointly owned.

Intrahousehold analysis of coping strategies

Comparing the responses of husbands and wives for those shocks that both spouses report, the majority of couples in both Ghana and Karnataka report using only one coping strategy. The patterns in Ghana are

quite symmetric; in Karnataka, it was more common for wives to report two strategies and husbands only one than the opposite pattern.

Although the majority of couples use the same number of coping strategies in response to shocks, these are not always the exact same strategies. In fact, in more than a third of the cases in both Ghana and Karnataka, spouses either report using a different number of coping strategies or report using different strategies.

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 they not only experience shocks differently but also react differently to them, utilizing different coping strategies. Second, survey questions about responses to household shocks will receive different answers depending on who is asked.

Shocks and access to government programmes

In Ecuador, a relatively small share of households facing health shocks have health insurance and guaranteed access to decent health care through the Ecuadorian Institute of Social Security (IESS). This can explain why health shocks are such a burden. Those within the IESS system may have high out-of-pocket expenses for medicines. Sole female-headed households, especially those experiencing health shocks, are much less likely to be covered by the IESS than other types of households. The poor are more likely to receive the *Bono de Desarrollo Humano* (Human Development Bond, a conditional cash transfer) than to be affiliated to the IESS. The *bono* may be a buffer in the face of a shock, helping to maintain consumption at previous levels, but it does not constitute a real safety net.

In Karnataka, knowledge of the National Rural Employment Guarantee Scheme is not widespread.

Approximately one half of female-headed households and one-third of principal couple households are unaware of the programme. Given that female households are concentrated in the lower wealth quintiles, this suggests that the poor and vulnerable do not even have basic exposure to a programme that could be used to tide them over a crisis. With respect to the acquisition of Below Poverty Line (BPL) ration cards provided by the state to purchase subsidized food grains, male-headed and couple households who had experienced shocks are significantly more likely to have BPL cards than those who had not. Therefore, it appears that the more vulnerable households did indeed receive some state support. Interestingly, however, we do not see this pattern among female-headed households. The results on shocks and state programmes in Karnataka are thus, at best, mixed and inconclusive.

Policy recommendations

Illness and death (which is often preceded by illness) are the most common shocks with economic consequences for most households. Thus reforms of the public health and health insurance systems are likely to have the largest impact. The coverage of existing health insurance schemes must be widened, since an important share of the population in each of the three survey sites remains outside of the purview of current programmes. Public health and subsidized insurance schemes must be better financed

to improve the scope and quality of the health-care services provided.

While recent efforts to incorporate informal sector workers into health and life insurance programmes of various sorts are commendable, from a gender perspective a concerted effort must be made to expand these programmes, since women who are economically active are much more likely to be informal sector workers (or homemakers) than men are. Also, it is

widely documented that women are the caretakers when there is an illness in the household or family and thus those most likely to seek medical care for others (at whatever the cost in resources or time). Improvements in access as well as the quality of health care available to lower-income groups must therefore be considered an integral part of any agenda to improve the welfare of women. Similarly, given the gender gap in life expectancy favouring women, programmes that seek to expand access to affordable life and burial insurance will also benefit them.

Our analysis suggests that a wider range of insurance packages must be designed to protect directly against asset shocks, be it farmer insurance against weather shocks or property insurance against catastrophes, accidents or crime. In particular, crop and livestock insurance programmes are very important in potentially allowing rural households to cope with the impact of covariate shocks such as floods and droughts. While in recent years a number of innovative programmes have been launched in developing countries, there is scant analysis to date on whether women are as likely as men to participate in such insurance programmes and, if not, on the specific obstacles they face in doing so.

Many shocks burden households through reduced income, an increase in expenditure or both. Greater financial inclusion, specifically of households most vulnerable to shocks, could help them tide over these periods. 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 in cash and other informal savings into the formal system. In the Indian context, where the economic burden imposed by expenditure on wedding ceremonies can tend to destabilize households, specialized savings products could also be designed for meeting them, as has been done in other contexts such as Egypt.

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. In Ghana, almost 40 per cent of assets lost (through theft or death) are livestock. 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 Ghana and Karnataka also points to the need for an improvement in the provision of veterinary services (via programmes that target both women and men who rear livestock).

Finally, women's property rights and their effective enforcement 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. This could be undertaken through legislation; for instance, the prevailing marital regime in Ghana and India is separation of property, which can render women completely asset-less and vulnerable in the event of the divorce, separation or desertion. Policies that promote women's labour 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.

INTRODUCTION

1.
INTRODUCTION

People everywhere face a wide range of potential shocks that may impact their well-being and quality of life. The risks include health shocks, economic shocks (such as the loss of property and/or livelihoods), the breakdown of families and households, and natural disasters. These may be covariate shocks—such as droughts or floods—that affect the entire community or idiosyncratic shocks—such as divorce or illness—that are experienced by an individual or a household. Some households are able to weather the economic impact of shocks while others find themselves pushed into poverty, either temporarily or permanently.

Understanding shocks and the responses to them is important to designing appropriate social protection policies. The possession of assets may help households and individuals cope with vulnerability and avoid impoverishment (Hulme and McKay 2005; Hulme and Shepherd 2003). When people own assets, they experience less vulnerability and insecurity in the face of risks; conversely, the more people's assets are eroded, the greater their vulnerability (Moser 2007). Shocks, such as the illness of a household member or loss of employment, may result in asset sales. Governments and non-governmental organizations (NGOs) frequently intervene and provide support during crisis situations with an array of relief programmes to help households cope with the impact of the shocks. Information on the assets owned by different types of households is important to ensure that these programmes protect crucial assets (livestock during droughts, for example); further, information on assets owned by individuals within households can ensure that programmes and policies equally protect the assets of women and men.

Most of the literature on shocks and coping strategies utilizes the household as the unit of analysis; it examines shocks to the household and household responses. Yet, household members may experience shocks very differently. It may be that they perceive the shocks differently or that they experience their severity and impact unequally. Coping strategies may also differ depending on the type of shock and the individual who experiences it. For a woman, one of the most important sources of economic vulnerability is the death of her husband or the threat of divorce. Indeed, household dissolution—whether due to separation, divorce, or death—is increasingly common. 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 and AIDS, coupled with limited economic opportunities, puts many widows and their children at risk of destitution (Aliber and Walker 2006; Drimie 2002; Muchunguzi 2002).

To the extent that assets provide economic security and a safety net, it is important to understand how these are distributed within the household and how asset-related decisions are made when shocks occur. Furthermore, to understand the vulnerability of women, and thus to be able to develop social protection policies for them, it is critical to know what assets belong to them individually. Much of the literature on the relationship between shocks and assets and between assets and poverty examines assets owned by the household. Yet, assets are typically owned by individuals, whether solely or jointly with a spouse or another individual.

Another way in which shocks and coping strategies are gendered is that women and men often own different types of assets and thus may be impacted differently depending on which assets are sold (Antonopoulos

and Floro 2005). Information on asset ownership can thus provide a baseline for understanding which household members are potentially most vulnerable to external shocks. Household coping strategies may have other unintended consequences that impact on long-term well-being: Evidence suggests that ownership of assets by women provides them with bargaining power within households.[3] Thus, shocks that deplete women's assets may affect their ability to participate in household decision-making and could well prove detrimental for them and their family's welfare.

Using unique data sets collected in Ecuador, Ghana and Karnataka, India, this paper aims to help create such a baseline. Our data sets include information about the individual ownership of all assets, the shocks that were experienced by households and the coping strategies used. For assets that were sold or pawned in response to a shock, we can analyse who within the household made the decision to sell the asset and whose asset was sold. For Ecuador, we also have information on whose assets were lost as a direct result of the shock.

The three countries are at differing levels of development, and people in them experience different shocks and use different coping strategies. By examining the relationship of shocks and assets across the three survey sites, we can see the patterns of similarities and differences. In particular, the marital property regimes differ in the three countries, and these impact how

assets are used as coping strategies. To analyse how the structure of households affects the experience of shocks and the coping mechanisms used, we consider the headship of the household, comparing unpartnered or sole male-headed households, unpartnered or sole female-headed households and those with a principal couple. We thus depart from the typical definition of a male-headed household that collapses into the same category households with an unpartnered, sole male head and those with a principal couple present.

The paper is organized as follows: First, in section 2, we discuss the broader literature on shocks and assets, identifying the gaps in the literature from a gender perspective. This is followed in section 3 by a discussion of social protection policies that are meant to improve the economic status of households as well as help them cope with shocks and mitigate their adverse impact. Section 4 outlines the survey methodology, followed by a description of each country context in section 5. We then turn to the empirical analysis, presenting first the descriptions of shocks that were experienced by households in the previous five years (section 6), followed by the asset losses associated with these shocks (section 7). In section 8, we consider household coping strategies—including the selling and pawning of assets, drawing down of savings and use of credit—while section 9 looks at the role played by social protection programmes. After a summary of findings and discussion in section 10, we conclude with some policy recommendations (section 11).

SHOCKS, COPING STRATEGIES, ASSETS AND GENDER

2.

SHOCKS, COPING STRATEGIES, ASSETS AND GENDER: LITERATURE REVIEW

2.1
Types of shocks households face

Households face a range of potential shocks. The types of shocks most frequently experienced vary across regions and according to the socio-economic status of the household. The methodology of how shocks are measured also differs considerably across studies; however, most studies examine shocks experienced over a specified period.

Many studies simply analyse 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 household experience and response 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 (although in any survey in a particular time period, other shocks may also be reported as important). A study in Laos finds that pest infestations are the most common shock, affecting 25 per cent of surveyed households. Illness follows closely as the second most frequent shock, affecting 23 per cent

of households (Wagstaff and Lindelow 2013). The severity of the shocks, as indicated by income losses and costs borne by households, 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. Analysing 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. Doss et al. (2012) use life histories from Uganda to find that health shocks and the death of a spouse have the most significant impacts on women's well-being.

Some shocks—such as fires, automobile accidents, floods, droughts and so on—include the direct loss of assets. Conceptually, such direct asset losses need to be differentiated from the sale or pawning of assets as 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. For example, either drought may directly result in the death of livestock, or livestock may be sold during a drought to cope with the economic distress.

2.2
What are the coping strategies used by households?

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 for households to acquire and accumulate assets is their function as a store of wealth, in that they can be sold or pawned to cope with shocks. The sale of productive assets, in particular, can entrench households into 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 such as jewellery may also be sold or pawned in response to shocks, with relatively lesser economic impact at the household level than the sale of productive assets.

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 their sale may not always help households 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 found that livestock sales barely compensate for the losses in real income resulting from drought and crop failure. They compensate for at most 30 per cent of the shortfall in income from crop production (Fafchamps et al. 1998). Mogues (2011) investigated whether the type of shocks affected household responses in rural parts of northeast Ethiopia between the late 1990s and early 2000s, when the region showed dramatic changes in livestock holdings. Both shocks experienced collectively in the village and household-level crop loss led to asset sales. Community-level coping mechanisms were likely to break down when crop loss affected most farmers in the village. Exogenous shocks had a greater impact on the holdings of grain stocks than of livestock assets.

Selling or pawning assets is only one component of coping strategies and, further, some studies find that households are unlikely to dispose of certain types of assets. For example, a long-term study of pastoralist households in East Africa found that while livestock holdings decreased significantly during a drought period, many households managed to retain assets such as watches, lanterns and radios. These have relatively little value and limited markets, and there was no evidence of households liquidating them to compensate for livestock losses (McPeak et al. 2012).

In the broader context of social protection policies, Wagstaff and Lindelow (2013) consider the frequency of using different coping strategies in Laos, including assistance from the government, assistance from NGOs and other households, health insurance and 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. On the other hand, it is uncommon for respondents to report having sold assets or received assistance from the government or NGOs. The absence of state support in particular signals the inadequacy of social protection programmes in helping households cope with shocks.

Using nationally representative data from Russia, Loskshin and Yemtsov (2004) analyse how people responded to shocks in a reference period that included the 1998 financial crisis. Respondents were given a list of possible responses to the new living conditions and were instructed to identify the strategies they had used. The most common responses were related to reduced household consumption; 63 per cent cut spending on clothing and 54 per cent had fewer meals. Further, this showed a gendered pattern, with 59 per cent and 67 per cent of women reporting decreased expenditure on food and clothing/shoes, respectively, with the comparative numbers for men being 49 per cent and 58 per cent.[4] Only 5 per cent of respondents reported having sold any belongings.[5]

Kim and Prskawetz (2009) show how different types of shocks lead to different coping strategies. Comparing the Indonesia Family Life Survey from 1993 and 2000, they examine six types of economic hardships—death, sickness, crop loss, natural disaster, unemployment and price fall—and the household responses to them. A greater share of those experiencing shocks in 1993 sold assets and used their savings than did those experiencing shocks in 2000. A higher incidence of asset sales occurred following illness and death than other shocks.

The empirical evidence supporting the expectation that assets will be sold in response to shocks is mixed. Selling assets is not always the principal household response to shocks. Instead, households employ other means such as 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 programmes that provide households with 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 Qiñones 2010).

2.3
Gender, assets and shocks

The literature discussed above on shocks and on poverty traps uses the household as the unit of analysis. Little gender analysis is done, in part due to the lack of appropriate data. Most gendered analysis is usually reduced to comparing households based on the sex of the household head. For example, Kumar and Quisumbing (2013) find that female-headed households in Ethiopia are more vulnerable to food price crises than male-headed households, in part because they are more resource poor. Due to data constraints, their analysis cannot examine the impacts of these crises on women living in male-headed households (who account for the majority of adult women).

Other problems associated with this method of gendered analysis include challenges in identifying the household head, since the economic criteria specified may not always correlate with social and cultural norms (or vice versa). In conventional data collection practices, households that contain a husband and wife as the primary couple are typically considered male-headed along with households where there is only an unpartnered male.

Analytically, this overall 'male-headed households' category is then compared with households in which a female head is unpartnered (single, separated, divorced, widowed or whose spouse/partner is away much of the year). Thus, household structure and composition are confounded with the sex of the head, which leads to the second problem of potentially misleading results in many domains. For example, using data from up to 10 Latin American countries, Deere et al. (2012) find that defining asset ownership based on the sex of the household head underestimates the true extent of adult women's ownership of housing, land and businesses.

Likewise, there are many reasons why the analysis of shocks and coping strategies should explore beyond

the household level. First, although some shocks may be experienced by all household members, they may also be experienced differently by each individual. For example, a health shock will affect people differently depending on whether they are the person who is ill, a primary caregiver or another household member. Second, individuals may have different coping strategies, including different social networks and insurance mechanisms. Considering these only at the household level as reported by a household head may miss crucial individual dimensions. Finally, the outcome of the shocks on the various members of the household may be different. These nuances can be better studied with sex-disaggregated data in order to examine issues including whether gender as a social construct predisposes women more to shocks, makes them more vulnerable to poverty traps or disadvantages them in specific ways while coping with shocks.

Risk pooling within the household has also received much less attention in the literature. The assumption that household members pool their risk and that it is therefore appropriate for investigators to treat the household as the unit of analysis is erroneous for the reasons stated above.[6] When women and men have different sources of income—whether because they grow different crops or work in different sectors—they may face different income shocks. Doss (2001) finds that the transitory income from agricultural production of women and men within the household (using four categories: male heads of household, spouse of head, other men and other women) has

different effects on household expenditure patterns for six of 12 expenditure categories (food, clothing, education, alcohol and tobacco, transportation and remittances). Similarly, Duflo and Udry (2004) find that rainfall shocks in Côte d'Ivoire have different impacts on household expenditures based on their impacts on the production of women's or men's crops. Dercon and Krishnan (2000) use data on adult nutrition in Ethiopia to examine whether individuals within households are able to smooth their consumption over time. They find that, particularly in poor households in southern Ethiopia, women are not able to smooth their consumption and are most affected by negative shocks.

Only one study to date—by Quisumbing et al. (2011)—has explicitly examined whether shocks affect the asset holdings of women and men 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 (such as floods or droughts) 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.

SOCIAL PROTECTION

3.
SOCIAL PROTECTION

Every society has some form of support system for individuals or households in distress. The family, social groups, the community at large and the state create mechanisms to assist members who are affected by shocks or are in poverty. Such actions to support members of a family or a social group can be broadly described as 'social protection' (Gentilini and Omamo 2011). These arrangements can take the form of social insurance to protect consumption in the wake of shocks or the provision of social assistance to the needy, destitute and those unable to participate in the labour market. They can be roughly separated into either formal social protection (i.e., arrangements provided by the state and codified in law) or informal social protection (i.e., arrangements provided by families and/or social groups that are not backed by law but depend on social norms and practices). In this section, we discuss the theoretical underpinnings of the concept of social protection and its dual role, particularly in developing countries, of addressing poverty as well as specific shocks. A brief description of contemporary trends in informal and formal social protection mechanisms is provided, and the importance of gender in understanding their scope and impact is discussed.

3.1
Justifying and defining 'social protection'

Three broad schools of thought make a case for social protection, in particular its formal provision. Several definitions of social protection can be found in the literature based on these schools (see Brunori and O'Reilly 2010; Gentilini and Omamo 2011). The first is the neoclassical position that bases its case on the welfare losses associated with market failure and imperfect markets. If there were perfect credit markets, individuals affected by adverse shocks would have recourse to these markets to smooth consumption. But the poor, unable to access insurance markets to protect themselves against risk (Dercon et al. 2010), make production and investment choices that result in low incomes and low returns (Alderman and Hoddinott 2009). The second school argues that social protection is a right. There is some debate surrounding the source of rights, whether these emanate from natural law, international law or the need to provide

security to human beings as moral agents (see Munro 2010 for a review of these debates). The third school bases its arguments for social protection on the need to address basic needs (ibid.). There is evidence that social protection interventions by the state can contribute to a decline in the incidence of chronic poverty, reduce inequality, assist individuals and households in the accumulation of assets, increase productivity and enhance growth (World Bank 2012).

The concept of social protection has thus evolved from narrowly focusing on managing risks (World Bank 2001) to the incorporation of issues of social justice and equity (Sabates-Wheeler and Devereux 2010). A broad framework of social protection encompasses four dimensions. The first is *preventive* measures, i.e., social insurance mechanisms (such as health insurance, pensions and membership in savings clubs and

burial societies) that seek to prevent the poor from sinking further into poverty and the non-poor from falling into poverty when they experience shocks, such as illness or death of a household member. The second dimension is *provision* measures that provide social assistance to persons who are unable to work (due, for example, to old age or disability). Some examples of social assistance interventions are the provision of disability benefits and of basic social services to groups with special needs (such as orphans) and conditional cash transfers. The third dimension is comprised of *promotional* measures that provide opportunities for income generation that aim to stabilize income and enhance skills. Under this heading are interventions such as school feeding programmes and the provision of microfinance. The fourth dimension is the introduction of *transformative* measures that enhance social justice and equity (ibid.). This broader definition of social protection takes cognizance of the multi-dimensionality of poverty and vulnerability and the long periods over which some individuals, households and communities can remain

in poverty (i.e., chronic poverty). It also recognizes that vulnerability and poverty occur not only because of shocks and the low resilience of households and individuals but also because of structural factors such as labour market discrimination.

Governments can provide social protection by changing the composition and quantum of their spending and/or using taxation policy. Tax credits and reliefs increase the disposable income of low-income households and can be designed to reduce the impact of shocks on disposable income.[7] In Ghana, tax reliefs are provided to people with disabilities and to those who have dependents aged 60 years and over. In Ghana also, as well as in India, provisions are available for the deduction of life insurance premiums from income before taxation thus creating an incentive to take out life insurance. In both countries, however, since the incomes of a large proportion of the workforce fall outside the formal tax net, such exemptions are unlikely to reach the most vulnerable and those in need of social protection interventions.

3.2
Trends in informal and formal social protection

Social protection in many developing countries has been almost exclusively informal, provided by families and social groups and lacking in legal protections or guidance. Publicly provided social protection is often limited in coverage to formal sector workers. But events such as the global food and financial crises have created a stimulus for the development of publicly provided social protection, and instruments such as poverty reduction strategy papers (PRSPs) and the Millennium Development Goals (MDGs) have brought poverty reduction squarely onto the policy agenda. As a result, the governments of many developing countries have emerged as important providers of social protection, serving to formalize and broaden protection efforts. The expansion of the scope of publicly provided social protection is seen as necessary, given the limitations of informal social protection arrangements that often make them unsuitable for addressing chronic poverty, risk and

vulnerability. These limitations include the exclusion of the poor and marginalized, inadequate resources and an inability to adequately deal with covariate shocks (see Bhattamishra and Barret 2010 for a review of informal social protection arrangements).

Although there has been an increase in social protection interventions such as conditional cash transfers, coverage is still low in many developing countries. It has been proposed that social protection interventions should become more inclusive, reaching all intended beneficiaries. It has also been proposed that the design of interventions should take into consideration the fact that some constraints are beyond the control of individuals. Social protection strategies should be better integrated with other poverty policies that address the structural causes of poverty and vulnerability (Roelen and Devereux 2013). The International Labour Organization (ILO) and World Health Organization (WHO)

have spearheaded the Social Protection Floor Initiative, which was adopted by the United Nations Systems Chief Executives Board in 2009. Social protection floors are the minimum social protection that each country should provide its citizens. The design of the national social protection floor is to be determined by each country and should ensure access to essential health care and income security for all persons in need at various stages of the life cycle. The principles guiding the design of social protection floors include universality of protection, adequacy and predictability of benefits, gender equality and social inclusion.[8]

3.3
Gender and social protection

Governments in many developing countries are introducing new social protection interventions and reforming existing programmes, and it is important to assess all of these from a gender perspective. Programme design, gender roles, social and cultural norms, rules and regulations all interact to determine and shape the physical, social and economic spaces in which women and men participate. This results in gendered impacts of both formal and informal social protection interventions.

Women and men do not have equal access to social insurance interventions that are employment- or contribution-based (Ezemenari et al. 2002; Sabates-Wheeler and Kabeer 2003; Razavi 2011). Women's participation in these schemes is lower than men's largely because the majority of working women in developing countries are not employed in the formal sector. Outside of agriculture, working women tend to be self-employed in the informal sector, often operating micro- and small-scale enterprises, or provide unpaid family labour. Social insurance programmes that address shocks such as illnesses, injuries and death are designed to cater to formal sector workers. Even when pension schemes are designed to include informal sector workers, women workers are unlikely to be able to set aside the monthly payments required. For example, in Ecuador, the self-employed must contribute 17.5 per cent of their earnings. This may be too large an amount for owners of micro-enterprises (many of whom are women) to set aside.

When women do participate in these schemes, they tend to receive lower benefits than men (Razavi 2011). Due to childbearing and child rearing, women leave and re-enter the labour market and therefore do not accumulate as many years there as men. Their average earnings are less than men's because they have lower skills and fewer years of experience as well as because of wage discrimination. A few countries have addressed some of the gender biases inherent in contributory pension schemes. For example, Bolivia uses gender-neutral mortality scales to calculate benefits (ibid.).

Social assistance programmes may be more appropriate for avoiding the shortfalls of social insurance programmes since they are financed by taxes and not the contributions of beneficiaries. However, in many developing countries expanding the reach of these programmes will require that they are universal rather than targeted. A widely cited example of a universal pension programme that avoids many gender biases is South Africa's old age pension scheme (Lund 2006). When there are fiscal resource constraints, it is assumed that targeted interventions would be the best approach for social protection programmes. However, the selection criteria and conditionalities that intended beneficiaries must satisfy can exclude some who are eligible, including those who need the programme most. Geographical targeting is also problematic, since it excludes beneficiaries living outside targeted areas. Some conditionalities may require proof of marriage, thus excluding single parents (particularly women who are responsible for children). Mexico's *Opportunidades* cash transfer scheme provides an example of conditionalities that make demands on the time of women, increasing their workloads and thus increasing the costs of participating in the programme (Molyneux 2007).

Social policies and social protection interventions can reinforce gender stereotypes and unequal gender power relations in the household (Molyneux 2007; Antonopoulos 2013). In an assessment of Mexico's *Opportunidades* and Peru's *Comedores Populares*, Molyneux found that "both projects incorporate women but depend on maintaining the gender divide for their success... they depend on women fulfilling their 'traditional' social roles and responsibilities" (2007, p. 35).

Employment guarantee programmes are examples of interventions that do not cast women in their traditional roles since they provide women with opportunities to participate in the labour market. For these interventions to be successful in encouraging women's participation, their design must take into account the constraints that women's unpaid care work places on their participation in wage work (Antonopoulos 2013). India's National Rural Employment Guarantee Scheme (NREGA) is an example of one such intervention designed to increase women's participation through the provision of child care facilities, time for mothers to breastfeed their children, guaranteeing equal wages for men and women for the same work and the siting of projects within a short distance of women's homes. The setting of targets for the minimum share of participants who must be women (as in India's NREGA) and the provision of skills training (in South Africa's Expanded Public Works Programme) are examples of projects designed to ensure women do participate in these schemes and are not consigned to unskilled work (Antonopoulos 2013).

Informal social protection arrangements also have embedded within them features that can discriminate against women. The family—nuclear and extended—plays an important function in informal social protection arrangements. In the absence of day-care centres for the elderly and universal access to health services, the burden of providing for and seeking alternative sources of health and elderly care rests with women. Care responsibilities compete with time to undertake income-generating activities and leisure resulting in women ending up working more hours than men. Informal social arrangements include the

pooling of resources; women's networks may not be as well-resourced as men's and therefore will not generate the required amount of resources to support them when they experience shocks (Ezemenari et al. 2002; Sabates-Wheeler and Kabeer 2003).

Ecuador, Ghana and India have a long history of providing social protections to formal sector workers, and recent legislation has paved the way to providing protections for workers in the informal sector as well. Details on the social protection policies are provided in the Appendix. Here, we highlight key features.

In Ecuador, the most comprehensive system of social protection is that provided by the Ecuadorian Institute of Social Security (IESS), a quasi-public institution. Maintained primarily through worker and employer contributions, the IESS provides health insurance and maintains its own national health system, and it is the only public source of unemployment insurance, workmen's compensation and retirement, disability and survivor pensions. While the self-employed can also join the IESS system, it is largely geared toward formal sector workers and in 2005 was estimated to cover only 23 per cent of the economically active population. In that decade women made up around one third of the pensioners in the system, reflecting their lower level of participation in formal sector employment. For those outside the IESS system, the main source of health care is the Ministry of Public Health, which covers approximately 30 per cent of the population through its national networks of hospitals and clinics. It is estimated that in the mid-2000s some 30 per cent of the population had no access to health care.

The main anti-poverty programme in Ecuador is the conditional cash transfer programme known as the *Bono de Desarrollo Humano* (Human Development Bond), introduced in 2002. A means-tested programme, it aims to reduce the inter-generational transmission of poverty by providing a $50 subsidy to households with school-age children that keep them in school and ensure they receive periodic health check-ups. The *bono* is generally paid to the mother. Ecuador also has two unconditional cash transfer programmes that serve the poor, one focused on senior

citizens and the other on people with disabilities. In 2010 it was considered to be the Latin American country covering the largest share of its population (44 per cent) through some sort of cash transfer programme and investing the highest share of its gross domestic product (GDP) (1.17 per cent) on such programmes (Cecchin 2011). The cash transfer programmes, along with other increases in social spending, are considered to have contributed greatly to the relatively large drop in the share of the population falling below the official poverty line: 27 per cent in 2012 compared with 38 per cent in 2006 (SIISE 2013).

Ghana developed its first national social protection strategy in 2007. The flagship of the strategy, the Livelihood Empowerment against Poverty (LEAP) programme, started in 2008 as a pilot programme and began roll out toward national coverage in 2013. It provides conditional cash transfers to the extreme poor and unconditional cash transfers to individuals with no productive capacity such as the elderly and people with disabilities. The LEAP programme is designed to be integrated with other social protection interventions such as the National Health Insurance scheme established in 2003, the school capitation grant that was introduced in 2004 and the Ghana School Feeding programme that began implementation in 2005. The national pension scheme under the Social Security and National Insurance Trust (SSNIT), which dates back to 1965, provides pensions mainly to formal sector workers, the majority of whom are men. Reforms to the scheme resulted in the enactment of a new pension law (Act 766) in 2008. The law provides informal sector workers with

the opportunity to be covered under the scheme by contributing 16.5 per cent of their monthly salaries. Apart from the National Health Insurance scheme, which provides insurance against some illness shocks, these social protection interventions are not designed to assist individuals or households when they experience shocks. The National Disaster Management Organisation (NADMO), established in 1996 under the Act of Parliament (ACT 517), represents the Government's response to covariate shocks that leave people homeless.

India has a long history of anti-poverty, food-for-work and other employment guarantee programmes, all of which strengthen poor households' ability to handle economic distress. Until recently, only organized workers in the formal sector had access to statutory social security in the form of pensions, provident funds and gratuity, health and maternity benefits, etc. In 2005, the Government passed the landmark National Rural Employment Guarantee Act (NREGA), one of the most widespread employment-generation programmes backed by legislation in South Asia. Under this programme, the state is responsible for providing a hundred days of employment to rural households that demand it; in the event of inability to provide such employment, it is liable to pay an unemployment dole. Provisions for gender equality are also built into the Act.

These anti-poverty programmes are only indirectly designed to assist households in dealing with shocks. Instead, they tend to focus on reducing the economic vulnerability to shocks.

METHODOLOGY
AND DATA

4.

METHODOLOGY AND DATA

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

In Ecuador, the sample of 2,892 households is nationally representative of rural and urban areas, and 4,668 persons completed the individual questionnaire. In Ghana, 2,170 households were surveyed and 3,288 persons answered the individual questionnaire; the survey is representative of the 10 administrative regions of the country. In Karnataka, 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 survey sites based on the insights learned in extensive field-testing in each. They differed in two dimensions: whether they were administered in the household or individual modules and whether they focused on household or individual level shocks. In Ecuador, shock-related questions were asked in the household module and the respondents included the principal female, the principal male or the principal couple together. This was, in part, due to budget constraints as well as the fact that the qualitative fieldwork suggested it was useful to have the couple respond together to these questions. The questions focused on household level shocks—for example, whether a household member had become seriously

ill or died and, if a household lost assets as part of the shock, whose assets were lost. In Ghana and Karnataka, the shocks-related questions were asked in the individual level questionnaire, so each respondent provided separate information on shocks. This allows for an intrahousehold analysis of whether two individuals within the same household report the same shocks and coping strategies. Ghana's questions, while asked of two respondents separately, asked about shocks to the household and whether any household assets were lost. In Karnataka, respondents were asked about their personal experience of shocks—for example, "Did *you* experience any of these shocks in the last five years?" and "Did *you* lose any assets that *you* owned individually or jointly?"

A wide range of possible shocks were enumerated in the questionnaire, and these differed across the survey sites since each list was the product of the qualitative research undertaken in the six months preceding the surveys. For this comparative analysis, the various types of shocks are aggregated into nine general categories, including: health shocks, death of a household member or a close family member, crime or destruction of property through an accident or fire, other loss of assets, loss of income, changes

in household structure, social functions and natural disasters. The final category—'other'—includes everything else and is not an analytically useful category.

The reported shocks include both those that are endogenous and those that are exogenous, and in this analysis we do not distinguish between them. It would take a different type of data collection and analysis to understand the role that household choices play in the extent to which they experience shocks. In addition, some of the shocks reported can be anticipated, such as weddings and other social events in Karnataka. Although households expect them and typically ensure some degree of preparation, these events still impose a very high economic cost and poor households often get into debt traps financing them.

TABLE 1

Definition of shock categories, by country

	Ecuador	Ghana	Karnataka, India
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; serious injury/illness of household member not resulting in hospitalization but reducing their normal activities
Death	Death of a household member or close family member	Death of a household member or family member	Death of a household member (due to reasons other than drought/flood)
Crime and accidents	Robbery, being cheated/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;[a] other property loss-related problems
Loss of income	Loss of job or business failure of someone in the household; decrease in remittances received	Loss of job of someone in the household; decrease in remittances received; major price decrease for agricultural, artisanal or business product; business failure	Loss of principal job or other income source of a household member; decreases/stoppage in remittances; failure of business; 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

	Ecuador	Ghana	Karnataka, India
Natural disasters	Major natural disaster (drought, flood or volcanic eruption)	Major natural disaster, (drought, flood)	Flood; drought
Other	Death of livestock due to disease; lawsuits; all other	Court cases; family disputes; arrest; emotional distress; all other	Displacement/eviction; loan/credit problems; all other

[a] Crop failure; loss of livestock; loss of land are only included here if they are not due to drought/flood.

The Karnataka instrument enumerated many more possible shocks than the other two surveys and disaggregated them to a much finer level. It is also the only one of the three sites that included the category of social functions as possible economic shocks to households. Weddings in Ecuador entail major expenses as well, but households tend to plan for these well in advance by saving for them and do not consider their realization to be a shock. In contrast, the death of a family member is often unexpected and households must cope with expenses that had not been anticipated, such as burial costs and a fall in household income.

The categories of shocks reflect the understanding of shocks within each particular context. For the most part, the shocks could be easily aggregated into consistent categories across the survey sites. The one set of shocks that was treated most inconsistently across the three surveys was that involving livestock and the manner in which this asset was lost. Whereas Karnataka distinguished between livestock lost due to floods or droughts from those lost due to other reasons (disease, theft, strayed away, natural death), Ghana differentiated between theft and 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'.

In all three surveys, the instruments provided a list of coping strategies that respondents could choose from

(which were determined according to the results of the qualitative fieldwork in each country).[9] If assets were sold or pawned as a coping strategy, information on which assets and to whom they belonged was also collected. Respondents in all surveys were asked who decided to sell or pawn a given asset.

Because our data were collected from households, albeit with attention to the ownership of assets by individuals within the household, it is important to categorize households appropriately. To consider household structure, we identify three categories of headship: sole females, sole males and couples. As noted in section 1, by disaggregating households headed by individual men without live-in partners from those consisting of a couple, we improve on previous analyses of headship by comparing more similar categories (unpartnered men compared to unpartnered women) and distinguishing them from households where both adults of the opposite sex are present. Only if the primary respondent (chosen to be the person most knowledgeable about the household's assets) was an un-partnered man is it considered a male-headed household. The same definition applies to female-headed households. For this analysis, both Ecuador and Ghana include as couples both those who are married and those living in consensual unions (consensual unions are not a relevant category in Karnataka). Households with a principal couple are those where the primary respondent was partnered regardless of whether the partner was interviewed. This does not in any way imply that husband and wife have equal say within the household.[10]

HOUSEHOLDS

5.

HOUSEHOLDS IN ECUADOR, GHANA AND KARNATAKA

5.1
Description of households

In Table 2 we present a description of households in each sample. Ecuador is the most urbanized of the three countries (75 per cent) and Ghana the least (38 per cent). The average household size in Ghana is the smallest among the three survey sites at 3.3 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. The majority of households in all three sites are headed by a primary couple, with households headed by sole males being the smallest group. Despite this broad similarity, there are some differences worth noting. In Ecuador and Karnataka, households with a primary couple dominate (68 per cent and 75 per cent, respectively) in contrast to Ghana (43 per cent). Ghana has a greater proportion of households with sole female heads (36 per cent) than Ecuador (25 per cent) and Karnataka (18 per cent). This is because in Ghana, unlike Ecuador and Karnataka, many partnered couples do not reside in the same household.

The incidence of individuals never having attended school is much higher in Ghana and Karnataka than in Ecuador. In Ecuador, less than 5 per cent of the adult population has never attended school. This contrasts with 34 per cent of women in Ghana and 46 per cent of women in Karnataka. A higher proportion of women and men in Ecuador and Karnataka than in Ghana have completed secondary education. The gender gap in education in Ecuador is not as wide as it is in Ghana and Karnataka.

Women workers are concentrated in agriculture in Karnataka (72 per cent) and the service sector in Ecuador (73 per cent). There is relatively less concentration of women workers in any particular sector in Ghana, although the majority are employed in agriculture (49 per cent). There is relatively more dispersal of men workers in the three countries across the three sectors, although the majority of men work in agriculture in Ghana and Karnataka and in the service sector in Ecuador. In both Ecuador and Ghana, a lower proportion of women work in agriculture compared to men. The reverse is the case in Karnataka.

TABLE 2
Descriptive statistics for population

	Ecuador N=2,892	Ghana N=2,089	Karnataka N=4,048
Urban households (%)	75.6	38.1	42.7
Average household size	4.13	3.34	4.57
Average dependency ratio[a]	0.25	0.86[c]	0.62[d]
Average child dependency ratio[b]	0.17	0.66	0.45
% of households that are sole female headed	25.4	36.4	17.9
% of households that are sole male headed	6.3	20.5	6.8
% of households with primary couple	68.3	43.1	75.3
Education	**N=3,460 men 3,982 women**	**N=1,817 men 2,198 women**	**N= 6,057 men 6,551 women**
% of women who have no education[e]	4.8	34.4	45.5
% of women who have at least some primary[f]	57.1	59.8	9.44
% of women who have completed secondary	16.6	3.4	17.6
% of women who have some tertiary education	21.5	2.5	14.1
% of men who have no education	3.0	18.6	25.9
% of men who have at least some primary	55.9	68.6	12.0
% of men who have completed secondary	19.4	6.4	24.7
% of men who have some tertiary education	21.7	6.4	24.0
Employment	**N=2,921 men 2,482 women**	**N=1,377 men 1,671 women**	**N=5,107 men 3,239 women**
% of women in wage work	28.4	6.9	5.2
% of women self-employed in agriculture	4.3	37.9	2.3
% of women self-employed in non-agriculture	21.2	40.4	2.5
% of women as unpaid family workers	6.6	10.9	14.0
% of women not in labour force	37.8	21.8	50.0
% of men in wage work	56.5	24.6	16.1
% of men self-employed in agriculture	4.2	52.5	18.8

	Ecuador N=2,892	Ghana N=2,089	Karnataka N=4,048
% of men self-employed in non-agriculture	17.4	16.2	9.0
% of men as unpaid family workers	3.4	2.6	6.8
% of men not in labour force	15.6	21.5	15.6
% of women workers in agricultural sector	14.1	49.3	71.9
% of women workers in service sector	73.3	41.2	15.4
% of women workers in industry	12.6	9.5	12.7
% of men workers in agricultural sector	18.8	58.6	53.9
% of men workers in service sector	50.5	27.5	27.5
% of men workers in industry	30.7	13.9	18.6

Notes: All percentages have been weighted with sample expansion factors.

[a] Ratio of number of persons aged 0–14 years and persons aged 65 years and over to persons aged 15–64 years

[b] Ratio of number of persons aged 0–14 years to number of persons in household aged 15–64 years.

[c] Sample size is 1,881 since some households have only dependents.

[d] Sample size is 3,949 since some households have only dependents.

[e] In India, this includes the categories illiterate as well as literate with no formal education.

[f] In India, this includes literate but below primary as well as primary.

Wealth quintiles were constructed based on the value of gross physical and financial assets of households. Table 3 presents the distribution of households across wealth quintiles by locale and headship type. In Ecuador, the differences in the quintile distribution between urban and rural households are not significant, although rural households are under-represented (17 per cent) and urban households (21 per cent) 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 per cent) whilst urban households are over-represented in the two wealthiest quintiles (46 per cent). In Karnataka, the reverse is the case with more than half of urban households found in the two lowest wealth quintiles and 44 per cent of rural households located in the two wealthiest quintiles.

Across the three countries, households headed by sole females are over-represented in the lowest quintile and under-represented in the wealthiest quintile. Couple-headed households are under-represented in the lowest wealth quintile in all three countries and over-represented in the wealthiest, particularly in Ghana.

In Ecuador, sole female-headed households are over-represented in the lowest and fourth wealth quintiles; these are the only household type that is over-represented in the lowest wealth quintile. Households headed by either sole females or males are over-represented in the fourth wealth quintile (where the majority of divorcees and widowers are located) and under-represented in the wealthiest quintile. We find significant differences in the distribution across quintiles by household type in Ghana and Karnataka. Among couple-headed households in Ghana, there is a steady increase in the share of households in each quintile from the lowest to the wealthiest. The reverse is the case for households headed by sole females, in which case the share of households found in each quintile declines with the increase in the wealth quintile. The pattern among sole male-headed households

is somewhat similar to what pertains among sole female households. However, there is a slight increase in the share of households in the fifth quintile compared to the fourth. Couple-headed households are over-represented in the wealthiest quintiles (30 per cent) whilst sole female (11 per cent) and male-headed households (17 per cent) are under-represented. In Karnataka, both sole female- and male-headed households are over-represented in the lowest quintiles. The proportion of female-headed households shows a secular decline across the quintiles, while among male-headed households it declines until the fourth quintile after which there is an increase in the fifth. The pattern among principal couple households is relatively more even from the second to the fifth quintiles, with some under-representation in the first.

TABLE 3
Location and headship type by wealth quintile

	Ecuador			Ghana			Karnataka		
Quintile	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
1	19.7	19.7	19.7	18.2	22.3	20.7	32.1	10.6	19.8
2	19.1	20.1	19.4	17	20.8	19.3	19.8	20.4	20.1
3	19.1	22.8	20	19.1	19.8	19.5	13.1	25.3	20.0
4	20.9	19.9	20.6	21	19.7	20.2	14.1	24.6	20.1
5	21.2	17.5	20.3	24.7	17.4	20.2	20.9	19.3	20.0
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
N	2,186	706	2,892	795	1,374	2,169	258	714	4,048
		p=0.267			p=0.026			p=0.000	
Quintile	Sole male	Sole female	Couple	Sole male	Sole female	Couple	Sole male	Sole female	Couple
1	19.4	25.9	17.4	25.2	33.1	8.1	20.8	33.1	16.5
2	18.9	15.3	20.9	24.0	20.2	16.3	22.0	21.1	19.7
3	19	18.1	20.8	18.1	19.6	20.1	21.1	18.5	20.3
4	24.8	23.7	19.1	16.2	15.8	25.9	14.5	14.4	22.0
5	17.9	17	21.8	16.5	11.3	29.6	21.6	12.9	21.5
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
N	184	735	1,974	434	728	1,007	258	714	3,076
		p= 0.000			p=0.000			p=0.000	

Note: p values based on Chi-squared test of differences in quintile distribution between (i) urban and rural households and (ii) household type.

5.2
Patterns of asset ownership

Across the three countries, patterns of asset ownership vary considerably on a number of dimensions.[11] The form of ownership varies, in part, due to the rules regarding marital property. In Ecuador, the default marital regime (what holds if nothing else is declared) is partial community property, which means that all property acquired during marriage, other than inheritances, is considered the joint property of both spouses. This regime applies to both couples who are formally married and those in consensual unions. Thus, in Ecuador, the most common form of ownership for major assets (particularly immovable property) is joint ownership by a couple. Both Ghana and Karnataka are characterized by separation of property marital regimes stipulating that all property is owned individually, including the property purchased during marriage. Relatively little property is jointly owned by spouses in these two countries.[12] Also, in general, far fewer women own assets there 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 women and men in workforce participation and wage rates, which would affect the ability to purchase property.

The incidence of ownership of different assets, for both adult women and men, varies across the survey sites. Ecuador is much more urbanized than the others, with 75 per cent of households living in urban areas. Along with the concentration of landholdings, this results in only 7 per cent of women and 7 per cent of men owning agricultural land. In Ghana, where much of the agricultural land is family land that is not owned by individuals or households but rather by communities or lineages, about 22 per cent of men and 11 per cent of women own agricultural land. In Karnataka, while a relatively high proportion of men overall are landowners (37 per cent), only 7 per cent of women own land.

The patterns of ownership of the principal residence are quite different. In Ecuador, women and men are equally likely to own their residence, and ownership levels are much higher than in the other two sites.

Overall, 34 per cent of men and 36 per cent of women own their residences. In Ghana, fewer people own their principal residence and the gender gap is noticeable: 30 per cent of men and 16 per cent of women. The gender gap is highest in Karnataka, where 42 per cent of men but only 16 per cent of women own their residence.

In Karnataka, 42 per cent of men and 37 per cent 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. Thus 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 per cent of men and 14 per cent of women own small livestock whilst 5 per cent of men and less than 1 per cent 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 per cent of men and 20 per cent of women own and raise poultry.

A much higher share of people in Ghana own a business than in Karnataka. In Ghana, 40 per cent of women and 20 per cent of men are business owners, while the comparable numbers for Karnataka are only 12 per cent and 5 per cent, respectively. Ecuador is somewhat in between with 23 per cent of women and 26 per cent of men owning businesses.

Thus, the three survey sites depict quite different situations and are able to provide contrasting insights into questions about the relationships of shocks, gender and assets. Ecuador is richer and more urbanized and also has a joint property regime within marriage. Karnataka and Ghana are more similar, being more rural and each having separation of property regimes. The gender gaps in the ownership of assets differ in the three sites. The difference between women and men in the incidence of ownership of most assets in Ecuador is much narrower than it is in Ghana and even more so than in Karnataka.

SHOCKS EXPERIENCED

6.

SHOCKS EXPERIENCED

6.1
Description of shocks experienced

In Table 4, a household is recorded as experiencing a particular type of shock if this was experienced at least once by the household in the five years preceding the survey. For each category of shocks, we tested whether there were differences between urban and rural households and among households with different headship structures. Overall, households in Ecuador were much more likely to report that they had experienced a shock than households in either Ghana or Karnataka. Only 24 per cent of Ecuadorian households said that they had not experienced a shock; the comparable numbers for Ghana and Karnataka were 48 per cent and 50 per cent, respectively.

TABLE 4
Percentage of households experiencing shocks, by location

	Ecuador				Ghana				Karnataka			
	Total	Urban	Rural		Total	Urban	Rural		Total	Urban	Rural	
Illness	44.8	43.1	50.1	**	19.4	18.7	19.8		25.5	24.3	26.4	
Death	38.2	38.3	37.8		11.9	10.1	13	*	11.2	12.8	10.0	**
Crime/ accident	20.4	22.3	14.7	***	6	4.5	6.9	**	1.1	0.1	1.2	
Other asset loss	NA				5	2.0	6.7	***	2.9	0.9	4.3	***
Loss of income	16.5	17.5	13.6	**	4.4	7.8	2.5	***	2.7	3.7	1.9	***
Change in household structure	8.4	9.1	6.3	**	3.3	2.2	4	*	1.1	0.7	1.3	
Social function	N/A				0	0.0	0		5.4	4.5	6.1	*
Covariate shocks	5.7	4.0	10.9	***	1.9	1.1	2.3	*	9.5	2.2	14.9	***
Other	0.2	0.1	0.3		0.6	0.5	0.7		1.2	1.4	1.1	
None	23.6	24	22.2		47.5	53.2	44.2	**	49.8	55.8	45.2	***
N=households	2,892	2,186	706		2,084	756	1,328		4,048	1,441	2,607	

Note: p values based on Chi-squared test of differences in the distribution between urban and rural households, by specific shock.

*** p<.000, ** p<.05, * p< .10

In each country, the shock experienced most frequently by households was illness, followed by deaths. This is consistent with much of the literature discussed earlier. The incidence of households reporting income shocks is higher in urban areas, while the incidence of households reporting natural disaster or covariate shocks is, not surprisingly, higher in rural areas in all three survey sites. In both Ghana and Karnataka, urban households are more likely than rural households to report that they did not experience any shock.

When considering the incidence of shocks by headship, the most important finding is that sole female-headed households are no more likely to report experiencing shocks than other headship types. This may be a matter of perceptions as to what constitutes a shock. Female-headed households tend to be poorer and have less access to credit and social protection policies. To the extent that they are chronically poor, they may be less inclined to report shocks since these are part of their everyday reality. In addition, they have fewer assets to lose. (We find below that the poorest households are not those most likely to report experiencing severe shocks.)

In both Ghana and Karnataka, couple-headed households are most likely to report having experienced some type of shock (there are no overall differences in Ecuador). The shock category for which there are significant differences by headship for all three survey sites is changes in household structure. In Ecuador and Karnataka, as expected, female-headed households have the highest incidence in this category. In

Ghana, however, male-headed households report the highest incidence.

When we consider the shocks rather than the household as the unit of analysis, multiple shocks of the same type reported by a household would be counted each time. These results are consistent with those using the household as the unit of analysis: The shocks that are most frequently reported in all three survey sites are illness and death. Beyond those two, the patterns differ across sites. Natural disasters make up 16 per cent of the reported shocks in Karnataka but less than 5 per cent in Ghana or Ecuador. Karnataka had two drought years and one devastating flood year during the five years in question. Loss of property via theft made up 16 per cent of the reported shocks in Ecuador but less than 2 per cent in Karnataka. The economic impact of expenditures incurred on social and religious ceremonies is substantial in Karnataka, where this was the fourth most common kind of shock reported.

One additional dimension of comparing shocks across households and household types is to consider the number of shocks experienced by households. The patterns could be bimodal, with households typically reporting either no shocks or many shocks, or the distribution could be decreasing in the number of shocks. We find that the pattern is similar regardless of site and household type; the share of households is inversely related to the number of shocks experienced. The largest share of households reports having experienced no shocks or one shock and the smallest share reports having many shocks.

6.2
Shocks by socio-economic status

The main purpose of the household asset surveys undertaken in the three survey sites was to estimate household and individual wealth directly, an analysis that has been carried out for very few countries. We would expect household wealth to constitute a much more precise measure of socio-economic differentiation among households or individuals than simply 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.

The wealth quintiles presented above (Table 3) can be used to analyse the extent to which wealth affects whether or not 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 (2005–2010). 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 5 presents the data on the share of households by wealth quintile that experienced at least one shock during the previous five years. In none of the three country sites are the asset-poorest households—those in quintile 1—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 per cent) is reported by households in quintile 1 and the highest (48 per cent) by households in quintiles 3 and 5. In Karnataka, the highest incidence (58 per cent) 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.

TABLE 5
Household wealth quintiles, incidence and degree of severity of shocks

	Households reporting a shock (%)			Households reporting a severe shock[a] (%)		
Quintile	**Ecuador**	**Ghana**	**Karnataka**	**Ecuador**	**Ghana**	**Karnataka**
Q1	75.4	36.0	48.0	56.3	28.7	42.8
Q2	77.0	42.6	46.4	53.1	32.0	39.6
Q3	80.5	48.0	50.1	62.4	36.8	41.4
Q4	76.7	46.6	57.7	58.7	33.9	49.7
Q5	72.2	48.2	49.1	49.7	35.7	41.8
Total	**76.3**	**44.2**	**50.3**	**56.1**	**33.4**	**43.1**
N= HHs	2,892	2,169	4,048	2,892	2,169	4,048
p =	0.134	0.026**	0.002***	0.03***	0.215	0.009***

Note: P values based on Chi-squared test. ***p<.000; **p<.05; * p<.10.
[a] Includes for Ecuador, severe and very severe; for Ghana, severe vs. moderate, mild or shocks of no economic consequence; for Karnataka, very severe only.

Information was obtained on the severity of the impact of the shocks reported. In the Ecuador survey, respondents had the option of describing shocks as moderate, severe, very severe or of no economic consequence; in Ghana, the options were mild, moderate, severe or having no impact. In the Karnataka survey, the options were very severe, moderate and mild. For the purposes of analysis we reclassified the impacts into two categories, i.e., severe and not severe. The majority of shocks in all three sites are reported as being severe: Ecuador (75 per cent), Ghana (96 per cent) and (85 per cent).

First, consider the differences among the three survey sites in whether the shocks had severe economic consequences (Table 5). The share of households that reported severe shocks is highest in Ecuador (56 per cent) and lowest in Ghana (33 per cent). Respondents in Ghana and Karnataka were more likely to report shocks they considered to be severe whilst respondents in Ecuador were less restrictive in what they considered should be reported as shocks. In both Ecuador and Karnataka, the differences in reported severity by quintile group are statistically significant. Households in Ecuador's third and Karnataka's fourth quintiles are most likely to report that the shocks they experienced had severe economic consequences. Note

that it is not the poorest households that are most likely to report that they had severe shocks.

Alternative measures of households' socio-economic status are the availability of housing amenities and the quality of housing construction materials. Table 6 presents information on three indicators of housing amenities—electricity, source of drinking water and sanitation—as well as on the quality of materials used to construct the dwelling. Almost all houses in Ecuador have electricity. It therefore cannot be used as an indicator to differentiate households based on socio-economic status. In the case of all three indicators in Ghana and Karnataka, households with access to better amenities are significantly less likely to experience shocks compared to those without. In Ecuador, the only significant difference is with respect to the source of drinking water, with those who rely on public sources outside the home for their water supply, such as community wells, being more likely to experience shocks than those who have piped water inside the home. It is only in Karnataka that the quality of housing construction materials emerges as significantly correlated with the incidence of shocks. Households in dwellings constructed using durable materials are less likely to report shocks compared to households residing in dwellings constructed using non-durable materials.

TABLE 6
Housing amenities and quality and incidence of experiencing shocks

	Ecuador			Ghana			Karnataka		
	HH experienced:		Total house-holds	HH experienced:		Total house-holds	HH experienced:		Total house-holds
	Shock	Severe shock		Shock	Severe shock		Shock	Severe shock	
Electricity									
None				49.6	37.1	**848**	53.3	47	**1,455**
Electricity/ generator				41.4	31.5	**1,321**	48.8	41.2	**2,592**
Chi-squared				p=0.004	p=0.036		p=0.018	p=0.002	

	Ecuador			Ghana			Karnataka		
	HH experienced:		**Total house-holds**	**HH experienced:**		**Total house-holds**	**HH experienced:**		**Total house-holds**
	Shock	**Severe shock**		**Shock**	**Severe shock**		**Shock**	**Severe shock**	
Source of drinking water									
Public sources	80.2	59.7	**1,026**	44.5	33.6	**2,108**	52.7	46.6	**2,413**
Well and other							50.9	39.6	**446**
Indoor piping	74.2	54	**1,866**	35.4	26.8	**58**	45.6	37.5	**1,188**
Chi-squared	p=0.005	p=0.021		p=0.076	p=0.238		p=0.001	p=0.000	
Sanitation									
No toilet in dwelling	76.2	57.6	**297**	43.7	32.5	**1,417**	54.3	47.1	**2,244**
Toilet in dwelling, not flush				49.8	39.2	**532**	45.4	38.2	**1,803**
Flush toilet in dwelling	76.4	55.9	**2,595**	33.3	24.7	**218**			
Chi-squared	p=0.968	p=0.659		p=0.003	p=0.005		p=0.000	p=0.000	
Quality of construction materials									
Non-durable	80	60.2	**259**	47	36.5	**706**	56.7	49.4	**1,309**
Durable	76	55.6	**2633**	43	32.1	**1,460**	47.8	40.7	**2,737**
Chi-squared	p=0.203	p=0.241		p=0.174	p=0.131		p=0.00	p=0.000	

Note: The Chi-squared tests whether the incidence of shocks/severe shocks was significantly different in households with access to superior amenities when compared to those with inferior amenities in each category (water, sanitation, etc.).

When households are classified on the basis of available housing amenities, we find that in Karnataka and Ghana (with the exception of sources of drinking water), less endowed households are significantly more likely to report severe shocks. In Ecuador, households without indoor piped water are more likely to report severe shocks. Poorer households, as indicated by the availability of housing amenities, are thus more likely to report both shocks and severe shocks.[13]

These two measures of socio-economic status—wealth quintiles and housing amenities and quality—tell different stories concerning which category of households is more likely to experience shocks. In general, the picture that emerges is that households in wealthier quintiles and those with poorer amenities have a higher incidence of shocks. In Karnataka, this seemingly anomalous result may be explained by the vast differences between rural and urban areas. With respect to the wealth quintiles,

rural areas are characterized by higher incidence of shocks among the wealthier households, especially those in quintile 4. Natural disasters, which account for a large proportion of shocks in rural areas, are concentrated among these households, who are the landed and those with livestock. However, this is not true in urban areas, where it is the poorest households that face significantly more shocks. Therefore, the overall result in Table 5 that households in quintile 4 face significantly higher shocks than those in all other quintiles is largely owing to the overrepresentation of rural households in this quintile when compared to urban households.

When it comes to access to amenities, however, rural areas show no significant differences in incidence of shocks by the superior or inferior amenities types (except in type of house variable). In urban areas, however, there are highly significant and substantial differences based on access to amenities across the board. Here, households with access to inferior amenities face a much higher incidence of shocks when compared to households with superior amenities. This overwhelming difference in the urban areas in combination with the absence of any difference in rural areas thus drives the overall result seen for Karnataka in Table 6.

6.3
Intrahousehold analysis of shocks

A key advantage of interviewing two individuals within a household is the possibility of acquiring different viewpoints on a given issue. As discussed earlier, this is important in the context of shocks because individuals within a household might experience the impact(s) differently. The gender dimension is also critical since women and men may not only report different types of shocks but also report the adverse impact of the shock differently, as they themselves felt it. An extreme case in point is when one individual reports a particular shock while the other in the same household does not because of such differential impacts. In this section, we examine these issues in Ghana and Karnataka since both surveys asked the questions about shocks in the individual questionnaires. We compare the responses for couples; the sub-sample considered is limited to those households in which both the husband and wife (or the man and woman in a consensual union in Ghana) responded to the shocks module.

Because the shocks questions were asked differently in Ghana and Karnataka, it is not appropriate to directly compare the responses. It is useful, however,

to consider these as two different analyses of intrahousehold understandings of shocks and coping strategies. Two differences in the approaches to the questions are relevant here. First, respondents in Ghana were asked about shocks to the household during the reference period, whereas in the Karnataka survey they were asked about the economic shocks and losses that they themselves had experienced. A further instruction in the Karnataka survey was that these may or may not have been shocks to their households and other household members, but that they should have affected the respondents personally, either directly or indirectly, therefore including a strong individual focus in the data collection.

Second, in the Ghana questionnaire, a total of 11 possible shocks were listed. In the Karnataka questionnaire, the list of possible shocks was much more disaggregated, with a total of 30 shock types listed. Using the same aggregated categories presented earlier, Table 7 examines all the shocks reported by respondents in these households and categorizes them by whether they were reported by the husband only, the wife only or by both.

TABLE 7
Distribution of shocks by who reported them within the household

Shocks	Ghana				Karnataka			
	Husband only	Wife only	Both	Total no. shocks	Husband only	Wife only	Both	Total no. shocks
Illness	41.8	24.5	33.6	282	48.91	42.51	8.58	1,031
Death	40.0	33.8	26.3	134	46.00	38.32	15.68	301
Crime/accident	45.6	31.0	23.4	109	46.21	41.48	12.31	35
Other loss of assets	52.1	30.2	17.6	88	51.40	37.68	10.92	102
Loss of income	46.3	35.8	17.9	45	70.24	27.98	1.78	89
Change in household structure	27.8	64.0	8.2	11	40.63	59.37	0.00	20
Social functions	0.0	0.0	0.0	0	35.09	54.25	10.66	188
Natural disasters	45.2	20.7	34.1	37	56.97	33.37	9.66	380
Other	45.9	34.2	19.9	20	62.78	34.88	2.34	41
N= Total shocks	43.5	29.2	27.2	726	50.04	40.37	9.59	2,187
Chi square test	p=0.094				p=0.000			

In both Ghana and Karnataka, the majority of the shocks are reported by just one of the spouses rather than both. In Karnataka, the proportion of shocks reported by both spouses is only around 10 per cent, while in Ghana it is about 27 per cent. Another similarity between the survey sites is that the proportion of shocks reported by the husband alone is higher than that reported by the wife alone. This pattern is observed across all the shock categories with the exception of abandonment, divorce, separation and other changes in household structure in the two sites, as well as social functions in Karnataka. In these cases, a larger proportion of shocks are reported by the wife alone. It is to be expected that more women than men would feel the impact of changes in household structure due to abandonment, etc.; the total number of shocks in this category, however, is understandably low since these are couple households. With respect to social functions in Karnataka, these numbers perhaps reflect gendered practices within households, with the planning and execution of weddings and other social and religious functions being primarily women's responsibility and hence their impact is felt more by women.

One of the explanations for the low incidence of agreement between couples in Karnataka could be that both spouses might indeed be referring to the same larger event but reporting their different feelings about its adverse impact. To illustrate, under the category of natural disasters, in some households the spouses both referred to the same flood in a given year but the husband reported 'crop failure due to flood' and the wife reported 'damage to house due to flood' as the particular shocks that affected them.

In some cases, we can identify whether the spouses are referring to the same larger event; when that is accounted for, the agreement between them on the shock reported increases marginally to 13 per cent. The majority of shocks continue to be reported only by the one or the other. Since we cannot identify whether or not the spouses are reporting on the same larger incident in all cases, here we report on the number of shocks identified by husbands and wives in the given reference period.

Table 8 considers all couple households where both spouses answered the shocks module and at least one of the spouses reported a shock. These households are then grouped based on how many shocks each spouse reported relative to the other. Here we find a greater degree of agreement among couples, with nearly a third of them in both survey sites (33 per cent in Ghana and 31 per cent in Karnataka) reporting the same number of shocks. In Karnataka, in most of the households in which the spouses agreed, they each reported one shock. When they disagreed, it was more common for the husband to report more shocks than his wife. In several of these households, one of the spouses reported one shock while the other reported none.

TABLE 8

Who within the couple reports more shocks

Shock categories	Ghana				Karnataka			
	Both report same number	Husband reports greater number	Wife reports greater number	N=	Both report same number	Husband reports greater number	Wife reports greater number	N=
Illness	37.5	44.6	17.9	253	31.3	39.0	29.7	695
Death	33.2	43.9	22.9	113	31.4	39.4	29.2	200
Crime/accident	25.2	44.1	30.7	95	35.6	28.1	36.3	29
Other loss of assets	18.4	55.3	26.4	81	27.7	47.7	24.5	75
Loss of income	19.3	49.9	30.9	41	49.5	38.5	12.0	56
Change in household structure	8.8	22.8	68.4	10	8.7	41.3	50.0	18
Social functions	-	-	-	0	28.8	32.5	38.7	136
Natural disasters	36.3	43.5	20.2	34	28.4	50.2	21.5	249
Other	31.7	68.3	0.0	12	21.4	54.8	23.7	27
Total (any shock)	33.4	43.1	23.5	639	31.0	40.8	28.2	1,485

N=the number of couple households in which one of the partners reports a shock of this type.

In sum, we find that husbands and wives in households experience shocks and their impacts in diverse ways, which is critical for any gender analysis. There is some degree of agreement between couples on the number of shocks they have experienced in the reference period but much less agreement on what the specific shocks and their impacts on them are. This suggests that information on shocks collected only from one individual in a household, typically the head of the household (who would generally be a man) would both underestimate the incidence of shocks experienced by individuals as well as mask the nuances of the impact on them.

LOSS OF ASSETS

7.

LOSS OF ASSETS

7.1
Direct loss of assets

One direct result of shocks may be the loss of assets. In addition, assets may be sold or pawned in order to cope with the shocks. Table 9 indicates the percentage of shocks resulting in direct asset loss. Even though many more shocks are reported in Ecuador than in the other two sites, only 17 per cent of shocks here result in an asset loss. In contrast, 29 per cent of the shocks in Ghana and 24 per cent in Karnataka do so. In both Ghana and Karnataka, a higher percentage of shocks in rural areas than in urban areas result in asset loss, and male-headed households are more likely to suffer asset losses as a direct result of the shock than either principal couple or, particularly, female-headed households. This is explained by the fact that more men than women own assets and female-headed households are concentrated among the poorest quintiles.

TABLE 9
Percentage of shocks resulting in asset loss, by location and type of household

	Ecuador	Ghana	Karnataka
Total	**17**	**29**	**24**
Location			
Urban	17	21	10
Rural	17	32	31
Headship			
Male	15	36	25
Female	16	19	14
Couple	18	32	25

These differences by location and headship may also be due to differences in wealth across the location and household types. Thus, we next examine in Table 10 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 the lower ones, and these differences are statistically significant in the case of Ghana and Karnataka, with quintiles 4 and 5, respectively, 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 have more assets to lose while poorer households have fewer. These results lend support to our use of quintiles for the analysis of shocks.

TABLE 10

Percentage of households losing assets due to the shock, by wealth quintile, conditional on experiencing a shock

	Median household wealth (US$)	Households losing assets as part of shock (%)	Median household wealth (US$)[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

Note: [a] For Ghana and Karnataka, India based on PPP conversion of Cedis and Indian Rupee values, respectively.

The types of shocks that result in asset loss vary widely across survey sites. Table 11 shows that in Ecuador and Ghana, the most common shocks that result in asset loss are crime/accidents (Ecuador, 67 per cent; Ghana, 38 per cent). In Karnataka, the most common shocks that result in asset loss are natural disasters (67 per cent), which accounts for rural areas reporting higher asset losses than urban areas.

TABLE 11

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

	Ecuador	Ghana	Karnataka
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

It is also important to know what types of assets households lose due to the shocks. The adverse impact of losing productive assets will be much greater than that of losing, for example, consumer durables. Table 12 indicates the distribution of the type of assets lost. The loss of immovable property is relatively low in Ecuador (3 per cent) and Ghana (5 per cent). In Karnataka, however, immovable property constituted 21 per cent of the assets lost due to a shock.

In Ecuador, the most common assets lost are money/financial assets and consumer durables; in Ghana, they are livestock and money/financial assets. Households in Karnataka reported a much smaller set of assets lost; harvests were the most common, followed by immovable property. The loss of harvests or standing crops in Karnataka is mostly as a result of floods or droughts, which impose a substantial burden on livelihoods and households' economic security.

TABLE 12
Distribution of type of assets lost

	Ecuador		Ghana		Karnataka	
	Freq.	%	Freq.	%	Freq.	%
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
Household 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	

	Ecuador		Ghana		Karnataka	
	Freq.	%	Freq.	%	Freq.	%
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 were not disaggregated.

7.2
Intrahousehold patterns of asset loss

Thus far, we have focused on asset loss at the household level. Yet, intrahousehold differences in the loss of assets may be important. In the Ecuador survey, a follow-up question was asked regarding whose assets were lost in the shock. Table 13 shows the distribution of assets lost by the sex of the owner. In most cases the specific 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. Although representing only a handful of cases, the shock most likely to result in the loss of agricultural land by a woman is separation or divorce, which is also the second leading factor behind the loss of businesses by women (after business failures).

TABLE 13
Distribution of assets lost, by the sex of the owner, Ecuador

Asset lost	Male	Female	Joint/mixed	
Dwelling	8	21	71	**100%**
Agricultural land	20	45	34	**100%**
Non-agricultural land	48	0	52	**100%**
Livestock	13	17	70	**100%**
Business	33	44	23	**100%**
Consumer durables	18	26	56	**100%**
Vehicle	30	24	46	**100%**

Asset lost	Male	Female	Joint/mixed	
Money/financial asset	31	28	41	**100%**
Harvest	18	17	65	**100%**
Other	37	19	44	**100%**

Of those who lost assets due to a shock in Ecuador, the great majority considered that the loss represented a severe or very severe economic loss to them and their households. As Table 14 shows, income shock involving an asset was the shock most likely to be considered as having severe or very severe economic consequences, in most cases because it encompassed a business failure. Considering the ownership of the lost asset when such was considered severe, two shocks resulted in significant differences by ownership type. Assets lost due to crime, accidents or fire were more likely to be considered severe losses by joint owners compared to sole female or male owners, perhaps because joint owners might have more valuable assets. In the case of asset losses related to household dissolution, female owners were much more likely than male or joint owners to consider that the economic consequences were quite severe.

TABLE 14

Percentage of respondents considering their asset loss to be severe, by ownership and type of shock, Ecuador

	Ownership of asset lost				
Type of shock	Male	Female	Joint	Any	Significance
Crime/accident	61.3	67.9	82.8	72.8	p = .004
Loss of income	84.9	87.0	89.9	87.6	p = .870
Change in household structure	47.0	83.1	50.2	61.1	p = .071
Natural disaster	90.6	84.3	75.5	79.4	p = .236

Note: p-values based on Chi-squared test of differences in the distribution by type of ownership by specific shock.

COPING STRATEGIES

8.

COPING STRATEGIES

Some assets are lost as a direct result of shocks, and the losses may differ for women and men. A further question is the extent to which assets are used as part of coping strategies. Table 15 presents the percentage of households that use each type of coping strategy; the observations are limited to households that experienced a shock. Based on this information, 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 per cent) and relatively lower in Karnataka (24 per cent) and Ecuador (15 per cent). 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.

Second, even though a wide range of coping strategies is 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 on savings. In Ecuador, changing employment is also frequently used as a coping strategy.

Third, physical and financial assets play different roles in coping with shocks across the three survey sites. In both Ecuador and Ghana, households draw on their savings to cope with shocks; however, in Karnataka they are unlikely to do so. The data suggest that it is primarily in Ecuador, a relatively high-income country, and to some extent in Ghana that savings are important in mitigating risk.

Fourth, among the three sites, Ghana has the highest proportion of households that sell or pawn assets as a coping strategy (11 per cent), while Ecuador emerges as having the lowest incidence of use of this strategy (4 per cent). This suggests that, in contrast to Ecuador and Karnataka, households in Ghana are more likely to acquire assets as a buffer against shocks. Assets sales may not always be distress sales but may be a planned coping strategy.

TABLE 15
Incidence of coping strategies pursued, by location, conditional on having experienced a shock (%)

	Ecuador			Ghana			Karnataka		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Formal social protection									
Assistance from government	3.1	2.8	3.7	0.5	0.6	0.5	3.4	2.5	3.9
Insurance	4.1	3.8	5.0	1.5	2.1	1.2	0.0	0.0	0.0
Informal social protection									
NGOs, charity	1.0	1.1	0.8	N/A	N/A	N/A	1.1	0.9	1.3

	Ecuador			Ghana			Karnataka		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Church	0.5	0.4	0.7	4.3	3.5	4.8	0.0	0.0	0.0
Family, friends, community	44.8	45.3	43.4	32.6	35.1	31.3	18.3	19.0	17.8
Other coping strategies									
Sell/pawn assets	3.6	3.3	4.4	10.5	9.8	10.9	2.5	2.6	2.5
Savings	49.7	47.4	56.6	32.6	37.0	30.2	0.3	0.4	0.2
Borrowing and salary advance	13.5	13.5	13.2	9.7	9.7	9.8	49.6	44.2	52.8
Reduced consumption	5.0	5.4	4.0	6.4	8.4	5.4	0.9	0.7	0.9
Changed employment,	10.4	11.0	8.6	0.8	0.2	1.2	0.0	0.0	0.0
Migration, change in household composition	0.3	0.3	0.2	1.8	2.2	1.6	2.6	1.8	3.0
Other	0.8	0.9	0.5	1.6	3.8	0.5	2.5	3.2	2.2
Did nothing	15.1	16.3	11.5	46.6	39.2	50.6	18.7	24.5	15.2
N=households	2,210	1,661	549	963	326	637	2,138	681	1,457

Significance of difference between rural and urban * at .10 level ** at .05 level and *** at .01 level

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 such loans or that formal institutions typically do not forward credit 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 means of credit are relatively quick and convenient to access, with little or no paperwork involved. For instance, local moneylenders typically provide loans against some collateral, and merely depositing house/land documents or jewellery with them can enable households to access ready cash immediately. Traders and employers also provide loans quite easily against future purchases and labour, respectively. The cost of such credit, however, is the higher than market (often usurious) interest rates, which can keep households locked in debt for years.

Finally, it is worth noting that formal social protection mechanisms—including assistance from the government and insurance plans—are not reported by many households in the three survey sites. Less than 1 per cent of households in Ghana report receiving assistance from government agencies, as compared to 3 per cent in Ecuador and almost 5 per cent in Karnataka. Less than 5 per cent of households in Ecuador and 2 per cent of households in Ghana report using insurance instruments.

Differences do exist between urban and rural areas, but the patterns differ by country. Rural households in Ecuador and urban households in Ghana are more likely to report drawing down savings. In Karnataka, rural households are more likely than urban

households to report borrowing. In all three sites, there are significant urban/rural differences in the percentage of households that report doing nothing; urban household in Ecuador and Karnataka are more likely to report doing nothing while rural households are more likely to do so in Ghana.

In none of the sites are there significant differences by quintiles in those households that sold or pawned assets as part of a coping strategy. As Table 16 shows, the trends suggest that this coping strategy is slightly more common among the middle quintiles in Ecuador and Ghana 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.

TABLE 16

Incidence of households selling/pawning assets as a coping strategy

Wealth quintile	Ecuador	Ghana	Karnataka
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

The coping strategy used does depend, in part, on the type of shock that occurred. In all three survey sites two strategies are most frequently used across the different shock types: in Ecuador and Ghana, the use of savings and assistance from family, friends or community; and in Karnataka, borrowing and assistance from family, friends or community. We were particularly interested in when assets were drawn on as a coping strategy. In Ecuador and Ghana, the drawing down of savings is widely used while in Karnataka it is only used to a very limited extent when there are illness/injury, death and natural disaster shocks. The sale or pawning of assets is used as a strategy across the entire spectrum of shocks, but this occurs more frequently when there are income shocks in Ecuador and Karnataka and illness/injury, death or other shocks in Ghana.

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, the failure to take action occurs when there is loss of assets either through theft, destruction or death. In Karnataka, this occurs when the shocks are other loss of assets, death or dissolution of marriage/consensual union.

Irrespective of the type of shock, female-headed households in Karnataka were significantly less likely to borrow and receive government assistance in the event of shocks when compared to male-headed and couple households. This suggests that single women both face credit constraints (even if informal credit)

and are less equipped to access even the limited state social protection when affected by shocks.

In Ghana, households headed by sole females were significantly more likely to receive assistance from family or friends and to borrow compared to other household types. Couple households, on the other hand, were more likely to make recourse to their savings.

Examining the number of coping strategies employed, the maximum reported is six in Ecuador, five in Ghana and three in Karnataka. Excluding those instances when no coping strategy was employed, the modal number of coping strategies used (irrespective of the type of shock) is one. It is difficult to predict *a priori* which household type will use the largest number of coping strategies. Households with a principal couple may use more strategies because each partner could take different actions to mitigate the negative impact of the shock. Compared to men, women's mean incomes are lower, they are less likely to own physical assets and, when they do own assets, the mean values of these are lower (Doss et al. 2011). In addition, their social networks are different from men's and may not be as well resourced to provide support. Female-headed households may therefore not be able to rely on only one coping strategy in response to a shock.

Across the three survey sites, principal couple households tend to use the largest number of strategies. In Ecuador, these households utilize the most strategies in the case of income shocks. Female-headed households use the largest number of strategies when there are natural disaster shocks.

In Karnataka, there are significant differences among households classified by headship type in the mean number of strategies utilized when there are theft/robbery shocks, dissolution of marriage/consensual union shocks, other loss of asset shocks and natural disaster shocks. Male-headed households use the largest mean number of strategies when there are theft/robbery shocks, and female-headed households utilize the largest mean number of strategies when there are dissolution of marriage/consensual union shocks. The households with the largest mean number of strategies when there are other loss of assets shocks and natural disaster shocks are principal couple households. In Ghana, principal couple households use a significantly larger number of strategies for all but illness/injury and income shocks.

8.1
Dis-accumulation by gender

The sale or pawning of physical assets is utilized as a coping strategy in all three survey sites, although the incidence is relatively low compared to the use of other strategies (such as drawing down savings, assistance from family, friends or community and borrowing). For simplicity's sake in this section, we refer to assets sold or pawned as assets sold. Here we explore who the owners of these assets are, whether the owners participate in the decision to sell or pawn, and whether the assets are replaced or reclaimed.

Table 17 presents information on the ownership of sold assets for Ecuador and Ghana.[14] In Ecuador, most of the assets that were sold consisted of consumer

durables (39 per cent), followed by livestock (20 per cent), non-agricultural land parcels (10 per cent) and vehicles (8 per cent). Overall, an almost equal proportion of assets sold were either jointly owned (38 per cent) or owned individually by women (36 per cent), with only 26 per cent 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 and the majority of the consumer durables that were 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).[15]

TABLE 17
Sex of owners and those deciding to sell

	N=	Sex of owner of asset				Sex of person who decided to sell			
	Assets sold	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-ag. 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-ag. 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%

	N=	Sex of owner of asset				Sex of person who decided to sell			
	Assets sold	Male	Female	Mixed/ couple	Total	Male	Female	Mixed/ couple	Total
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%
Jewellery	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			

In Ghana, nearly all the sold assets were individually owned. There is an almost even split in the share of assets that are individually owned by women (46 per cent) and men (49 per cent). Less than 5 per cent of the 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 it is the exception (Doss et al. 2011). Most assets in Ghana that were sold 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 uncut cloth.

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 decision. A minority of joint owners (2 per cent) do not. Although most owners participate in the decision, joint decision-making is quite common among individual asset owners there. About 41 per cent of male individual owners make the decision to sell an asset jointly with someone else. Interestingly, women who own assets individually are less likely to make the decision jointly with someone else.

In Ghana, almost all owners participate in the decision to sell their asset. A slightly higher proportion of women (17 per cent) than men (14 per cent) do not. The incidence of a man making the decision about the sale of an asset owned by a woman (10 per cent) is slightly lower than the incidence of a woman making the decision about the sale of an asset owned by a man (11 per cent).

An analysis of the sex of owners and decision makers by assets sold reveals more interesting patterns (see Table 17). About 89 per cent of sold dwellings in Ecuador were jointly owned by couples; however,

individual decision-making is more common. This is in sharp contrast to the sale of vehicles, which is dominated by joint decision-making even though most of the vehicles were individually owned. None of the businesses sold were jointly owned and in all instances the decision to sell was an individual 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.

In contrast to Ecuador and Karnataka, in Ghana all sales decisions are made individually even though a few of the sold assets were jointly owned. Overall, the proportion of men who make the decision to sell is slightly higher than the proportion of owners of sold assets who are men. This is the pattern for sales of household businesses, consumer durables and agricultural equipment. Vehicles are the only asset for which the proportion of women who make the decision exceeds by a wide margin the proportion of women owners.

Individuals who sell assets as a coping strategy are not always able to rebuild their stock of the asset. In all three sites, many assets that are sold are not repurchased or reclaimed. In Ecuador about 26 per cent of assets are recovered, while in Ghana and Karnataka the proportions recovered are quite low at just over 14 per cent and 11 per cent, respectively.

8.2
Intrahousehold analysis of coping strategies

The previous section considers the coping strategies at the household level, where for Ghana and Karnataka the coping strategies reported by the two respondents for the same shock within a household were reconciled.[16] For example, for a given shock reported by both respondents, if the primary respondent reported a particular type of coping strategy and the second respondent reported another type, both coping strategies were considered for that shock for the household level analysis. Yet, in the intra-household analysis of reporting incidence of shocks, we saw above that responses of spouses vary regarding the number and type of shocks they experienced. In this section, we consider the responses to the questions about coping strategies used to see the extent to which spouses report similar patterns. This is not simply comparing the responses of men and women but also those of husbands and wives (or those in a consensual union in Ghana) who both answered the survey. In addition, because coping strategies were associated in the survey with particular shocks, in this section we

consider only the coping strategies for shocks that both spouses reported. The survey was not 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, individuals reported up to four coping strategies, while in Karnataka, no one listed more than two. Table 18 shows the distribution of the number of shocks listed by the husband and wife. In Ghana, for 72 per cent of the couples, both spouses reported using one coping strategy; in Karnataka, 85 per cent. In terms of the number of coping strategies, there was by and large agreement between spouses, with the large majority in both survey sites 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 than the opposite pattern.

TABLE 18

Distribution of shocks, by number of coping strategies employed by couples (for shocks reported by both respondents)

Number of coping strategies by husband	Ghana				N=	Karnataka		N=
	Number of coping strategies by wife					Number of coping strategies by wife		
	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**	na	na	**0**
4	0.7	0.0	0.0	0.2	**2**	na	na	**0**
N=	**136**	**28**	**9**	**2**	**175**	**194**	**20**	**214**
Chi square	p=0.000					p=0.000		

Table 19 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 both Ghana and Karnataka, spouses either did not 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 fall back on assistance from family or friends than husbands. Women in Ghana were less likely than their partners to draw down savings or sell assets. They were, however, more likely to receive assistance from family or friends.

TABLE 19

Agreement between spouses on coping strategies employed (shocks reported by both)

Mode of coping strategies used by couples	Ghana		Karnataka	
	%	Number	%	Number
Do not 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**

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.

SHOCKS AND ACCESS TO GOVERNMENT PROGRAMMES

9.

SHOCKS AND ACCESS TO GOVERNMENT PROGRAMMES

As noted above, relatively few people report having recourse to formal social protection programmes in response to a shock. For Ecuador and Karnataka, we have information on whether surveyed households participate in several of the anti-poverty programmes or are covered by social security (similar information was not collected for Ghana).

In Ecuador, 27 per cent of the households in the sample receive the means-tested conditional cash transfer payment (*bono*), discussed above in section 3.3, and a similar share of those households that experienced shocks in 2005–2010, 28 per cent, are *bono* recipients (see Table 20). There is no statistically significant difference in this percentage based on household headship. Thus sole female-headed households are as likely as sole male-headed and couple-headed households to have been somewhat buffered from the full economic consequences of a shock by their receipt of this ongoing subsidy, irrespective of its small amount ($50 per month). The *bono*, however, is not designed to protect households from shocks; rather, its focus is to reduce the intra-generational transmission of poverty. Few of the surveyed households reported the *bono* as a coping strategy; several households who lost their *bono* eligibility did report such an event as an economic shock.

Coverage by the Ecuadorian Institute of Social Security (IESS) includes both retirement pensions and health insurance, and 29 per cent of households in the sample have a member who is subscribed to this system. It is primarily for wage workers, and thus overlaps only minimally with those receiving the *bono*. In addition, the *bono* is much more common in rural areas while enrolment in the IESS is much more skewed towards urban areas. Sole female-headed households are much less likely to be covered by the IESS than other types of households. With respect to the households that experienced shocks in the reference period, 27 per cent have IESS coverage. While 31 per cent of households headed by couples and 29 per cent of sole male-headed households are IESS members, only 17 per cent of sole female-headed households participate in this system.

TABLE 20

Shocks and social protection in Ecuador

	Sole male head	Sole female head	Principal couple	Total
Of households experiencing shocks, % that receive the bono	23.4	27.2	29.0	**28.2 (N=2,210)**
Chi-squared test				p=.483
Of households experiencing shocks, % that have IESS coverage	28.8	17.3	30.7	**27.0 (N=2,210)**
Chi-squared test				p=.001***
Of households experiencing health shocks, % that have IESS coverage	26.8	17.7	32.6	**28.5**
Chi-squared test				p=.001***

For the analysis of shocks, the most relevant information is with respect to the share of those experiencing health shocks who are covered by IESS health insurance: 29 per cent. This is a much higher share than those who reported relying on insurance as a coping strategy (4 per cent) noted earlier, suggesting that since we did not explicitly include reliance on the IESS as a coping strategy, respondents only reported reliance on other, private insurance schemes. Sole female-headed households experiencing health shocks are less likely to be covered by the IESS health system than either sole male-headed or couple-headed households (Table 20). Households with an IESS member also have protection in case of a death shock, since it includes burial insurance and survivor benefits.

For Ecuador, the main conclusion is that a relatively small share of those facing health shocks has health insurance and guaranteed access to decent health care through the IESS system, which is why health shocks are such a burden. And even those within the IESS system may have high out-of-pocket expenses for medicines, since these are not always covered. For the poor, who are more likely to receive the *bono* than to be affiliated to the IESS, the *bono* may be a buffer in the face of a shock, helping to maintain consumption at previous levels, but it does not constitute a real safety net.

For Karnataka, we consider two state programmes: the National Rural Employment Guarantee Act, which mandates the provision of a maximum of 100 days of employment to any rural household seeking employment; and the Below Poverty Line (BPL) ration cards provided by the state to poor households so that they can purchase subsidized food grains.

TABLE 21
Shocks and social protection in Karnataka, India

	Male-headed		Female-headed		Principal couple	
	Household experienced shock	Household did not experience shock	Household experienced shock	Household did not experience shock	Household experienced shock	Household did not experience shock
NREGA (rural only)						
Got card, obtained work	14.52	10.55	22.01	15.55	21.83	18.88
Got card, did not obtain work	7.17	3.73	7.31	7.64	11.72	9.64
Applied, yet to get card	8.59	10.59	2.54	4.81	9.92	6.48
Not applied	35.72	37.6	24.56	15.37	26.11	29.29
Not aware of NREGA	35	37.52	43.59	56.63	30.44	35.72
Total	**(100%) 87**	**(100%) 66**	**(100%) 202**	**(100%) 229**	**(100%) 1,113**	**(100%) 837**
Chi-squared test	p=0.876		p=0.030		p=0.011	
BPL ration card						
Above poverty line	25.33	18.75	14.22	20.99	19.96	23.12
Below poverty line	66.89	43.64	67.43	62.48	63.92	53.39
No ration card	7.79	37.61	18.36	16.54	16.12	23.49
Total	**(100%) 135**	**(100%) 125**	**(100%) 331**	**(100%) 389**	**(100%) 1,665**	**(100%) 1,436**
Chi-squared test	p=0.000		p=0.199		p=0.000	

Significant differences are seen in the resort to NREGA benefits among female-headed and couple-households. Among these households, those that experienced shocks were more likely to have applied for the NREGA card and obtained work under the programme when compared to those who had not experienced any shocks. However, in female-headed households, those who experienced shocks were [also] significantly more likely to have *not* applied for the NREGA card at all. In both household types, those that experienced a shock displayed greater awareness of the programme than those that did not report a

shock. What is striking is that irrespective of the incidence of shocks, approximately one half of female-headed households and one-third of principal couple households are not even aware of the programme. Given that female-headed households are concentrated in the lower quintiles (Table 3), this suggests that the poor and vulnerable did not even have basic exposure to a programme that they could have used to tide them over their crisis.

With respect to the acquisition of BPL cards, male-headed and couple households who had experienced shocks were significantly more likely to have these cards than those who had not experienced shocks. Therefore, it appears that the more vulnerable households did indeed receive some state support. Interestingly, however, we do not see this pattern among female-headed households, which perhaps suggests that even those who had not experienced shocks were just as likely to be vulnerable enough that they took advantage of the BPL card. The results on shocks and state programmes in Karnataka are thus, at best, mixed and inconclusive. Further, causality cannot be ascertained from these descriptive findings.

10.

SUMMARY OF FINDINGS AND DISCUSSION

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, who made the decision to sell or pawn the assets, whose assets were sold and the extent of state social protection response to shocks faced by households. 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 per cent of households in Ecuador, 53 per cent in Ghana and 50 per cent in Karnataka. Regardless of the level of development or urbanization, the majority of households experience shocks.

In most studies, shocks are classified based on whether they are idiosyncratic or covariate. We found that among households experiencing shocks in the three sites, most reported experiencing idiosyncratic shocks, in particular health and death shocks. An alternative basis for analysing shocks is whether the shock is an asset shock. Asset shocks are those that directly involve the loss of assets through, for example, robbery or destruction of the asset by fire or floods, etc. Thus they can be either idiosyncratic or covariate, making these distinctions less useful. The death of livestock is another example of an asset shock. In addition to asset shocks, there are shocks that are closely related to the loss of assets. The dissolution of a marriage through divorce, for example, can result in a decline in the asset wealth of both parties if the marital property is shared between them. It could also result in one party (usually the woman) losing wealth if she cannot make a claim on property acquired during the marriage. As we saw in the case of Ecuador—a country where women's property rights are relatively strong—household dissolution can result in women disproportionately losing individually owned assets.[17]

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: when the shock directly or indirectly reduces the stock of assets; and when assets are sold or pawned as a coping strategy. We find that even though the most frequently reported shocks by all household types are health and death shocks, a substantial proportion of households in all three survey sites report shocks involving the loss of assets: 27 per cent in Ecuador, 32 per cent in Ghana and 27 per cent in Karnataka. Asset shocks place households and individuals in a precarious position because they deplete asset wealth and reduce the capacity to protect consumption and income using asset-based strategies when shocks occur. In Karnataka, 16 per cent of shocks are natural disaster shocks, two thirds of which resulted in the loss of assets, primarily crops. In Ecuador and Ghana, in contrast, the leading shock resulting in asset loss was crime and accidents.

The second way that households and individuals lose assets is when these are sold or pawned as a coping strategy to deal with the economic impact of a shock. Overall, fewer households lose assets this way as compared to directly (as part of the shock), with the incidence being 4 per cent in Ecuador and Karnataka and 11 per cent in Ghana (Table 16).

One of our most important findings is that female-headed households in the three study sites are no more likely to report asset shocks than other types of households. At the same time, it is important to consider whose assets are lost in such shocks, with the data on Ecuador suggesting that women are more vulnerable to certain kinds of shocks (such as household dissolution and business failures).

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 analysed in the context of how common it is for women to own major assets. This may be particularly true of female-headed households. In Ghana and Karnataka, women are less likely than men to own immovable property and, on average, 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. Nonetheless, in all three survey sites assets owned by women are more likely to be sold compared to the overall incidence of women's ownership of assets. Moreover, 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.

In addition, husbands and wives living together in the same household do not necessarily report the same shocks or coping strategies. This suggests that they experience shocks in different ways and that the ways in which they are affected vary. This finding has implications for data collection; asking only one member of the household about shocks will provide a limited perspective. Additional research focusing on how gender influences an understanding of shocks would be very useful.

All three countries have formal social protection mechanisms that provide social insurance, social assistance and support to workers in the labour market. However, the incidence of the use of formal social protection mechanisms—in particular, assistance from government—is very low in all three sites. In Karnataka, female-headed households are less likely to receive such protection whilst in Ecuador and Ghana there are no significant differences across household types. Government assistance is primarily forthcoming when there are natural disaster shocks. Assistance from family, friends or the community is one of the most frequently used coping strategies in Ecuador and Ghana and not unimportant in Karnataka. However, the incidence of its use is lower when there are natural disaster shocks compared to when there are other shocks. This suggests informal social protection arrangements may be a rather weak coping strategy when there are covariate shocks.

A common pattern across the three survey sites is that the coping strategies of female-headed households are different from the other households in one respect: They are more likely to depend on assistance from family, friends or the community, the differences being significant in Ecuador and Ghana although not in Karnataka. This suggests that public policy has a particularly important role to play in ensuring social protection to women and in protecting their assets, as well as in facilitating their ownership of property to reduce their vulnerability.

11.

POLICY RECOMMENDATIONS

It is widely accepted that the state has a crucially important role to play in providing social protection to its most vulnerable citizens, both women and men. The crux of the debate is the extent to which social protection is provided directly (e.g., through universal health care) versus indirectly (e.g., through subsidized insurance schemes of various sorts), a topic beyond the scope of this paper. What is evident in our analysis of Ecuador, Ghana and Karnataka is that the reach of the existing mechanisms of social protection is woefully inadequate.

We have established that illness and death (which is often preceded by illness) are the most common shocks to have economic consequences for most households. Thus the policy interventions most likely to safeguard the welfare of the largest number of people are likely to be those related to reforms of the public health and health insurance systems. The coverage of existing health insurance schemes must be widened, since an important share of the population in each of the three survey sites remains outside the purview of current programmes. Public health and subsidized insurance schemes must be better financed to improve the scope and quality of the health-care services provided. In addition, in many cases these need to be redesigned to reduce the fees associated with utilizing many of the services, such as in Ghana.

While recent efforts to incorporate informal sector workers into health and life insurance programmes of various sorts are commendable, from a gender perspective a concerted effort must be made to expand these programmes, since women who are economically active are much more likely to be informal sector workers (or homemakers) than men are. Also, it is widely documented that when there is an illness in the household or family it is women who will be the caretakers, and thus those most likely to seek medical care for others (at whatever the cost in resources or time). Improvements in access as well as the quality of health care available to lower-income groups must therefore be considered an integral part of any agenda to improve the welfare of women. Similarly, given the gender gap in life expectancy favouring women, programmes that seek to expand access to affordable life and burial insurance will also benefit them.

Our analysis suggests that a wider range of insurance packages must be designed to protect directly against asset shocks. While we do not evaluate different types of insurance programmes, these could include farmer insurance against weather shocks, such as floods or droughts, or property insurance against catastrophes, accidents or crime. While in recent years a number of innovative programmes have been launched in developing countries, there is scant analysis to date on whether women are as likely as men to participate in such insurance programmes and, if not, on the specific obstacles that they face in doing so. Micro-insurance schemes promoted by NGOs and offering coverage for property, livestock and small enterprises are seen in the Indian context, and these tend to have more women participating in them since they are typically operationalized through women's microfinance or other self-help groups. Setting up regulatory frameworks for monitoring such groups and enabling their sustainability is critical.

Almost all the shocks have the economic impact of burdening households with reduced income, an increase in expenditure or both. This signals a need for greater financial inclusion specifically focusing on households vulnerable to shocks (which could help them tide over these periods). 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. Although large numbers of women in Karnataka participate in microfinance programmes, the savings amounts are relatively low and perhaps not adequate to meet the needs of the impact of shocks. 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 in 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 these expenses.

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. In Ghana, almost 40 per cent of assets lost (through theft or death) are livestock. 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 Ghana and India also points to the need for an improvement in the provision of veterinary services (via programmes that target both women and men who rear the livestock).

Finally, women's property rights must be strengthened and those that they currently have must be enforced, 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. This could be undertaken through legislation; for instance, the prevailing marital regime in Ghana and India is separation of property, which can render women completely asset-less and vulnerable in the event of the divorce, separation or desertion. Policies that promote women's labour 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.

All of these changes will require shifts in policy. The implementation of financial inclusion programmes, including those for insurance, can be done in the relatively short term. Insurance programmes for health or property may be implemented by some combination of the public and private sectors. Protecting people from asset loss, whether from crime or through loss in assets upon divorce or death of one's spouse, will require longer-term policy changes. All of these policy discussions should incorporate women's voices to ensure that the programmes that are developed meet their needs.

REFERENCES

Aggarwal, A. 2010. "Impact Evaluation of India's 'Yeshasvini' Community-Based Health Insurance Programme." *Health Economics* 19 (May): 5–35.

Alderman, H. and J. Hoddinott. 2009. "Growth-Promoting Social Safety Nets." In *The Poorest and Hungry: Assessments, Analyses, and Actions – An IFPRI 2020 Book,* edited by J. von Braun, R. Vargas Hill and R. Pandya-Lorch, 279–86. Washington DC: International Food Policy Research Institute.

Antonopoulos, R. 2013. "Expanding Social Protection in Developing Countries: A Gender Perspective." Working Paper No. 757. Levy Economics Institute of Bard College, Annandale-on-Hudson, NY.

Antonopoulos, R. and M. Floro. 2005. "Asset Ownership along Gender Lines: Evidence from Thailand." Working Paper No. 418. Levy Economics Institute of Bard College, Annandale-on-Hudson, NY.

Armas, A. 2005. "Redes e Institucionalización en Ecuador: Bono de Desarollo Humano." Serie Mujer y Desarollo #76. Economic Commission for Latin America and the Caribbean, Santiago.

Asfaw, A. and J. von Braun. 2004. "Is Consumption Insured against Illness? Evidence on Vulnerability of Households to Health Shocks in Rural Ethiopia." *Economic Development and Cultural Change* 53, no. 1: 115–29.

Asian Development Bank. 2013. *The Social Protection Index: Assessing Results for Asia and the Pacific*. Mandaluyong City, Philippines: Asian Development Bank.

Bhattamishra, R. and C.B. Barrett. 2010. "Community-Based Risk Management Arrangements: A Review." *World Development* 38, no. 7: 923–32.

Brunori, P. and M. O'Reilly. 2010. "Social Protection for Development: A Review of Definitions." Paper prepared for the European Report on Development 2010. http://mpra.ub.uni-muenchen.de/id/eprint/29495. Accessed 4 December 2014.

Carter, M.R., P.S. Little, T. Mogues and W. Negatu. 2007. "Poverty Traps and Natural Disasters in Ethiopia and Honduras." *World Development* 35, no. 5: 835–56.

Cecchini, S. and A. Madariaga. 2011. *Conditional Cash Transfer Programmes: The Recent Experience in Latin America and the Caribbean.* Santiago: Economic Commission for Latin America and the Caribbean.

D'Souza, S. 2000. "Poverty among Widows of Kinshasa, Congo." *Journal of Health, Population, and Nutrition* 18, no. 2: 79–84.

Deere, C.D. and J. Contreras. 2011. *Acumulación de Activos: Una Apuesta por la Equidad.* Quito: FLACSO. (English translation available at http://genderassetgap.iimb.ernet.in).

Deere, C.D., G.E. Alvarado and J. Twyman. 2012. "Gender Inequality in Asset Ownership in Latin America: Female Owners vs Household Heads." *Development and Change* 43, no. 2: 505–30.

Deere, C.D., J. Contreras and J. Twyman. 2014. "Patrimonial Violence: A Study of Women's Property Rights in Ecuador." *Latin American Perspectives* 41, no. 1: 143–65.

Deere, C.D., A.D. Oduro, H. Swaminathan and C. Doss. 2013. "Property Rights and the Gender Distribution of Wealth in Ecuador, Ghana and India." *Journal of Economic Inequality* 11, no. 2: 249–65.

Dercon, S. and L. Christiaensen. 2011. "Consumption Risk, Technology Adoption and Poverty Traps: Evidence from Ethiopia." *Journal of Development Economics* 96, no. 2: 159–73.

Dercon, S. and P. Krishnan. 2000. "In Sickness and in Health: Risk Sharing within Households in Rural Ethiopia." *Journal of Political Economy* 108, no. 4: 688–727.

Dercon S., T. Bold and C. Calvo. 2010. "Insurance for the Poor?" In *Social Protection for the Poor and Poorest: Concepts, Policies and Politics,* edited by A. Barrientos and D. Hulme, 47–63. Basingstoke, UK: Palgrave Macmillan.

Dillon, A. and E.J. Quiñones. 2010. "Asset Dynamics in Northern Nigeria." Discussion Paper 01049. International Food Policy Research Institute, Washington, DC.

Doss, C. 2001. "Is Risk Fully Pooled within the Household? Evidence from Ghana." *Economic Development and Cultural Change* 50, no. 1: 101–30.

Doss, C., M. Truong, G. Nabanoga and J. Namaalwa. 2012. "Women, Marriage and Asset Inheritance in Uganda." *Development Policy Review* 30, no. 5: 597–616.

Doss, C., C.D. Deere, A.D. Oduro, H. Swaminathan, S.J. Y., R. Lahoti, W. Baah-Boateng, L. Boakye-Yiadom, J. Contreras, J. Twyman, Z. Catanzarite, C. Grown and M. Hillesland. 2011. *The Gender Asset and Wealth Gaps: Evidence from Ecuador, Ghana and Karnataka, India*. Bangalore: Indian Institute of Management Bangalore.

Dreze, J. and P.V. Srinivasan. 1997. "Widowhood and Poverty in Rural India: Some Inferences from Household Survey Data." *Journal of Development Economics* 54, no. 2: 217–234.

Drimie, S. 2002. "The Impact of HIV/AIDS on Land: Case studies from Kenya, Lesotho and South Africa." Synthesis report prepared for the Southern African Sub-Regional Office of the Food and Agriculture Organization, Harare.

Duflo, E. and C. Udry. 2004. "Intrahousehold Resource Allocation in Cote D'Ivoire: Social Norms, Separate Accounts and Consumption Choices." NBER Working Paper No. 10498. National Bureau of Economic Research, Cambridge, MA. http://www.nber.org/papers/w10498. Accessed 12 April 2014.

ECLAC (United Nations Economic Commission for Latin America and the Caribbean). 2007. *Estudio sobre la Protección Social de la Tercera Edad en Ecuador.* Quito: CELADE-Population Division of ECLAC and Ministerio de Bienestar Social.

ECLAC (United Nations Economic Commission for Latin America and the Caribbean). 2013. *Social Panorama of Latin America 2012.* Santiago: ECLAC.

Ezemenari, K., J. Owens and N. Chaudhury. 2002. "Gender and Risk in the Design of Social Protection Interventions." Social Safety Net Primer Series. World Bank, Washington, DC.

Fafchamps, M., C. Udry and K. Czukas. 1998. "Drought and Saving in West Africa: Are Livestock a Buffer Stock?" *Journal of Development Economics* 55, no. 2: 273–305.

Fuwa, N. 2000. "The Poverty and Heterogeneity among Female-Headed Households Revisited: The Case of Panama." *World Development* 28, no. 8: 1515–42.

Gbedemah, C., N. Jones and P. Pereznieto. 2010. "*Gendered Risks, Poverty and Vulnerability in Ghana: Is the LEAP Cash Transfer Programme Making a Difference?*" Project Briefing No. 52. Overseas Development Institute, London.

Gentilini, U. and S.W. Omamo. 2011. "Social Protection 2.0: Exploring Issues, Evidence and Debates in a Globalizing World." *Food Policy* 36: 329–40.

Giesbert, L. and K. Schindler. 2012. "Assets, Shocks, and Poverty Traps in Rural Mozambique." *World Development* 40, no. 8: 1594–1609.

Government of Ghana. 2007. "National Social Protection Strategy." Ministry of Manpower, Youth and Employment, Accra.

Government of India. 2011. *India Human Development Report 2011: Towards Social Inclusion*. New Delhi: Oxford University Press.

Government of India. 2012. "Report of the Expert Group to Recommend Detailed Methodology for Identification of Families Living below the Poverty Line in Urban Areas." Planning Commission, New Delhi.

Hulme, D. and A. McKay. 2005. "Identifying and Measuring Chronic Poverty: Beyond Monetary Measures." CPRC-IIPA Working Paper 30. Chronic Poverty Research Centre, Manchester, UK.

Hulme, D. and A. Shepherd. 2003. "Conceptualizing Chronic Poverty." *World Development* 31, no. 3: 403–23.

IESS (Instituto Ecuatoriano de Seguridad Social). 2013. *Protagonistas de Vida y Esperanza* (virtual newsletter), various issues.

ILO (International Labour Organization). 2012. *Social Protection Floors Recommendation 2012 (No. 202).* Geneva: ILO.

Jhabvala, R. and S. Sinha. 2001. "Social Security for Women Workers in the Unorganised Sector." *The Indian Journal of Labour Economics* 44, no. 4: 577–84.

Kazianga, H. 2012. "Income Risk and Household Schooling Decisions in Burkina Faso." *World Development* 40, no. 8: 1647–62.

Kim, J. and A. Prskawetz. 2009. "External Shocks, Household Consumption and Fertility in Indonesia." *Population Research and Policy Review* 29, no. 4, 503–26.

Kumar, N. and A.R. Quisumbing. 2013. "Gendered Impacts of the 2007–2008 Food Price Crisis: Evidence Using Panel Data from Rural Ethiopia." *Food Policy* 38: 11–22.

La Forgia, G. and S. Nagpal. 2012. "Government-Sponsored Health Insurance in India: Are You Covered?" *Directions in Development.* World Bank, Washington, DC.

Lund, F. 2006. "Working People and Access to Social Protection." In *Gender and Social Policy in a Global Context: Uncovering the Gendered Structure of 'the Social'*, edited by S. Razavi and S. Hassim, 217–36. Basingstoke: Palgrave/United Nations Research Institute for Social Development.

Lybbert, T., C. Barrett, S. Desta and D. Coppock. 2004. "Stochastic Wealth Dynamics and Risk Management among a Poor Population." *Economic Journal* 114, no. 498: 750–77.

McPeak, J., P. Little and C. Doss. 2012. *Risk and Social Change in an African Rural Economy.* London: Routledge.

MIES/PPS (Ministerio de Inclusión Económica y Social/Programa de Protección Social). 2012. "PPS en Breve." Bulletin #12, December. MIES/PPS, Quito.

Mogues, T. 2011. "Shocks and Asset Dynamics in Ethiopia." *Economic Development and Cultural Change* 60, no. 1: 91–120.

Molyneux, M. 2007. "Change and Continuity in Social Protection in Latin America: Mothers at the Service of the State?" Gender and Development Programme Paper Number 1. United Nations Research Institute for Social Development, Geneva.

Moser, C. 2007. "Introduction." In *Reducing Global Poverty: The Case for Asset Accumulation,* edited by C. Moser, 1–11. Washington, DC: Brookings Institution Press.

Mozumder, P., A.K. Bohara, R.P. Berrens and N. Halim. 2008. "Private Transfers to Cope with a Natural Disaster: Evidence from Bangladesh." *Environment and Development Economics* 14, no. 02: 187–210.

Muchunguzi, J. 2002. "HIV/AIDS and Women's Land Ownership Rights in Kagera Region-North Western Tanzania." Paper presented at the FAO/SARPN Workshop on HIV/AIDS and Land Tenure, Pretoria, South Africa, 24–25 June.

Munro, L.T. 2010. "Risks, Needs and Rights: Compatible or Contradictory Bases for Social Protection?" In *Social Protection for the Poor and Poorest: Concepts, Policies and Politics,* edited by A. Barrientos and D. Hulme, 27–48. Basingstoke, UK: Palgrave Macmillan.

Naschold, F. 2012. "'The Poor Stay Poor': Household Asset Poverty Traps in Rural Semi-Arid India." *World Development* 40, no. 10: 2033–43.

PAHO (Pan American Health Organization). 2008. *Health Systems Profile: Ecuador.* Washington DC: PAHO.

Peterman, A. 2012. "Widowhood and Asset Inheritance in Sub-Saharan Africa: Empirical Evidence from 15 Countries." *Development Policy Review* 30, no. 5: 543–71.

Quisumbing, A.R. and B. Baulch. 2009. "Assets and Poverty Traps in Rural Bangladesh." Working Paper No. 143. Chronic Poverty Research Centre, Manchester, UK.

Quisumbing, A.R., N. Kumar and J.A. Behrman. 2011. "Do Shocks Affect Men's and Women's Assets Differently? A Review of Literature and New Evidence from Bangladesh and Uganda." Discussion Paper 01113. International Food Policy Research Institute, Washington DC.

Razavi, S. 2011. *Engendering Social Security and Protection: Challenges for Making Social Security and Protection Gender Equitable.* Berlin: Friedrich Ebert Stiftung.

Roelen, K. and S. Devereux. 2013. "Promoting Inclusive Social Protection in the Post-2015 Framework." IDS Policy Briefing, Issue 39, July. Institute for Development Studies, Brighton, UK.

Sabates-Wheeler, R. and S. Devereux. 2010. "Transformation Social Protection: The Currency of Social Justice." In *Social Protection for the Poor and Poorest: Concepts, Policies and Politics,* edited by A. Barrientos and D. Hulme, 64–84. Basingstoke, UK: Palgrave Macmillan.

Sabates-Wheeler, R. and N. Kabeer. 2003. "Gender Equality and the Extension of Social Protection." Extension of Social Security Paper No. 16. International Labour Organization, Geneva.

SIISE (Sistema Integrado de Indicadores Sociales del Ecuador). 2013. "Indicadores Prioritarios." (various tables). www.siise.gob.ec/IndicadoresPrioritarios. Accessed June 27, 2013.

Srivastava, R. 2013. *A Social Protection Floor for India.* New Delhi: International Labour Organization.

Townsend, R.M. 1994. "Risk and Insurance in Village India." *Econometrica* 62, no. 3: 539–91.

Vásconez, A. 2014. *Mujeres y Protección Social en Ecuador.* Quito: Ministerio de Inclusión Económica y Social.

Verpoorten, M. 2009. "Household Coping in War- and Peacetime: Cattle Sales in Rwanda, 1991–2001." *Journal of Development Economics* 88: 67–86.

Wagstaff, A. and M. Lindelow. 2013. "Are Health Shocks Different? Evidence from a Multishock Survey in Laos." *Health Economics* (published online June 2013).

World Bank. 2001. *Social Protection Sector Strategy: From Social Safety Net to Springboard.* Washington DC: World Bank.

World Bank. 2012. *Resilience, Equity, and Opportunity: The World Bank 2012–2022 Social Protection and Labor Strategy.* Washington DC: World Bank.

APPENDIX: SOCIAL PROTECTION POLICIES IN ECUADOR, GHANA AND KARNATAKA, INDIA

Political and economic background

Ecuador

High human development index (HDI) ranking of #89 and gender inequality index (GII) of #83. Social protection programmes are in a period of expansion after a major financial crisis in 1999–2000, when 60 per cent of the banks failed and the economy was dollarized (the last causing a significant devaluation). President Rafael Correa was elected in 2006 on a platform promoting social equity and prioritized social protection policies. Social spending during his first term in office (2007–2012) averaged 9.5 per cent of GDP. Social spending, combined with steady growth fuelled by strong oil prices (the leading export), had an important impact on poverty rates. Still, Ecuador still lags behind much of Latin America in resources devoted to social protection.

Ghana

Medium HDI ranking of #135 and GII ranking of #121. Implementation of social protection policies in Ghana date back to 1965, when a nationwide social security scheme was established under the Social Security Act. The National Social Protection Strategy (NSPS) was developed in 2007–2008 based on the premise that growth and mainstream development interventions are not sufficient to reduce the huge number of people living in poverty and protect people from natural or economic shocks.

Karnataka

The timely release of funds by the Government has often been a major challenge for all the programmes. Medium HDI ranking of #136 and GII ranking of #132. Two approaches to social security in India: a citizen-based approach and a work-based approach. Widespread and acute poverty has meant that social protection policy is chiefly centred on a variety of state-driven anti-poverty programmes. The Planning Commission of India fixes a poverty line (in calorific terms) based on the minimum needed to meet basic food and non-food requirements. The Asian Development Bank ranks India 23rd among 35 nations in Asia and the Pacific in terms of the Social Protection Index. The six major social protection-related sectors (elementary education, health and family welfare, labour and labour welfare, social security, welfare and rural development) together accounted for 1.75 per cent of GDP in 2010–2011.

Preventive protection[18]

Ecuador

Health care: Ecuador's 2008 Constitution guarantees universal health care. In the mid-2000s, 30 per cent of the population had no access to health care, various public institutions attended to 59 per cent of the population and 10 per cent were served by the private sector. The Ministry of Public Health has since launched an ambitious campaign, PRO-AUS, to extend health services to the 200 poorest districts of the country and to 1.35 million people in the lower two quintiles of the income distribution.

Social security: The Ecuadorian Institute of Social Security (IESS) is the main state provider of retirement, disability and survivor pensions, in addition to unemployment insurance and worker's compensation; it also provides health insurance to its members and maintains a nationwide system of hospitals and clinics. It is maintained by automatic payroll deductions of members' wages/salaries and employer contributions (each paying between 9 and 11 per cent of gross earnings/payroll); the self-employed contribute 17.5 per cent of their earnings. In 2012, 41 per cent of the economically active population were members of the IESS.

To receive IESS retirement benefits, individuals must be at least 60 years of age, with 30 years of contributions. The guaranteed minimum monthly benefit in 2013 was $159.

The Peasant Social Security System (SSC) governs in rural areas. It consists of a network of rural clinics aimed at serving those who are affiliated with various rural organizations, who pay a flat $1.64 monthly deduction from dues. It also included a retirement pension of $49.38 in 2013. About one quarter of rural households are serviced by this system, which provides better quality health services than the public health system.

Members of the IESS-SSC system have access to other benefits and services, such as burial insurance and low-cost loan programmes (such as for housing and emergencies).

In 2012, a similar share of economically active men and women were enrolled in the IESS system: 42 per cent and 41 per cent, respectively (in 2003 women made up only 36 per cent of the IESS retirees, reflecting their lower share in formal sector employment). The average amount of women's pensions was also considerably lower than that received by men—$155 vs. $201—reflecting the gender wage gap.

Ghana

The National Health Insurance Scheme (NHIS): The introduction of a fee-based health delivery system made it difficult for the poor to access formal health services. The scheme is meant to provide basic health-care services to Ghanaians through mutual and private health insurance. It had an active membership of about 9 million in December 2012 who benefit from general outpatient and inpatient services and emergencies. About 755.000 pregnant women registered for free maternal care in 2012.

Pension scheme: Under the new pension scheme administered by the Social Security and National Insurance Trust (SSNIT), a contribution of 17.5 per cent of gross monthly salary is made by employers (12.5 per cent) and employees (5 per cent) toward one's old age pension, invalidity pension and death-survivors payment. Reforms in 2008 resulted in a contributory three-tiered pension scheme and the establishment of a National Pensions Regulatory Authority to oversee, among other things, the administration and management of registered pension schemes.

Women are employed largely in the informal sector and therefore constitute a small share of the participants in the pension scheme.

Karnataka

Yeshasvini is a social health insurance scheme in operation in Karnataka since 2003 that covers a range of surgical and non-surgical medical treatments, hospitalization and other health-related benefits. Subscription to the scheme is based on membership in specified cooperative societies. As of 2010, this scheme had extended coverage to over 3 million beneficiaries in the state. Members of the cooperative societies with higher levels of income, education and membership in other self-help groups are more likely to subscribe. Scheduled tribes were underrepresented among those covered. However, there were no significant gender differences in the enrolment.

The **Janani Suraksha Yojana** scheme provides a cash benefit of Rs. 500 for every live birth to a woman from a household below the poverty line. An additional amount of Rs. 100 in rural areas and Rs. 200 in urban areas is provided to poor women if they deliver in a hospital; this has reportedly helped reduce the maternal mortality rate in India.

Women and child health: The National Rural Health Mission (NRHM) was launched in 2005 to provide comprehensive health security to the poor in rural areas, focusing on women and children. The key objectives include reduction of infant and maternal mortality rate and prevention of communicable and non-communicable diseases. Village health, nutrition and sanitation committees have been set up and provided with some funding. In Karnataka, the *Madilu* scheme, a component of the NRHM, encourages women from below poverty line households to give birth in clinics and provides the beneficiaries with a kit of necessary infant hygiene-related articles.

Sandhya Suraksha Yojane of the government of Karnataka provides pension benefits to small and marginal farmers, agricultural labourers, weavers, fishermen and other labourers from the unorganized sector (excluding construction workers). Any worker in these occupational groups above the age of 65 years with annual income less than Rs. 20,000 per annum is eligible for coverage. They are paid Rs 400 per month.

Janashree Bima Yojana provides life insurance protection to the rural and urban poor. Applicants must be: (i) aged between 18 and 59 years; (ii) below or marginally above the poverty line; and (iii) members of specified vocational or occupational groups. Contingencies covered are natural death, accidental death and permanent disability. By 2005, this scheme had achieved coverage of around 3.9 million individuals across the country.

Provision measures[19]

Ecuador

Human Development Bond (HDB, or bono) aims to strengthen human capabilities by tying the receipt of benefits to investments in children's education and health, mitigate poverty by boosting consumption and reduce income inequality. Conditionality includes keeping children between the ages of 5–17 years enrolled in school and taking young children for check-ups at a local health centre. The bono payment is currently $50 a month per household. In 2012, women made up 94 per cent of the beneficiaries and constituted 56 per cent of those receiving the senior citizen pension and 43 per cent of the disability pension.

As elsewhere, Ecuador's conditional cash transfer programme has been criticized from a gender perspective for reinforcing women's roles as caretakers and for its lack of focus on women's rights and economic empowerment. Initially, many poor women were excluded from the programme because they did not have an identity card (encouraging women to assert their citizenship by acquiring such was subsequently

incorporated into the programme's activities). In an evaluation, many of the women beneficiaries reported that they would prefer to be given training and a loan to be able to develop their own income-generating activities rather than depend on the bono, which they said was not really sufficient to meet their needs.

The **Ministry of Economic and Social Inclusion** runs two, unconditional cash transfer programmes, besides the bono, for those who are not part of the IESS-SCC system. One is focused on senior citizens who are below the poverty line; the other on people with disabilities. The monthly payment is set at the same level as the bono.

Emergency grant: Among the other smaller programmes administered by the Programa de Protección Social (PPS) is the emergency grant, a flat $90 benefit for those affected by natural disasters. It also runs a programme for bono beneficiaries that covers the financing of catastrophic illnesses and another that provides burial insurance.

Ghana

Livelihood Empowerment against Poverty (LEAP) is a social protection programme that provides conditional and unconditional cash transfers to extremely poor and vulnerable households in order to smooth consumption and increase access to basic services and opportunities. The LEAP programme provides financial support for beneficiary households with monthly cash transfers of $4 to $7.50, depending on the number of eligible people living in the household. The cash transfers to people with disabilities or those aged above 65 years are unconditional, while transfers to caregivers of orphan or vulnerable children living in extreme poverty are based on the conditions of (i) sending children to school; (ii) not allowing child labour; (iii) registering family members in the NHIS; and (iv) registering all children at birth and completing the immunization programme. The caregivers of orphans scheme focuses on women caregivers.

The LEAP programme does not require women to be the recipients of cash grants and does not explicitly target women. However, the National Social Protection strategy prioritizes women caregivers. The cash transfers received under the LEAP programme help cover expenses that are usually the responsibility of women, e.g., school-related expenses, accessing health services and covering maternal costs.

Karnataka

Public Distribution System: The Targeted Public Distribution System (TPDS) provides subsidized food grains to the poor and vulnerable sections of the population. Evaluations of this programme show that it has been beset with identification and targeting errors, duplication of Below Poverty Line (BPL) cards, and leakages and diversion of subsidized food grains, such that only around 57 per cent of the BPL households were covered in 2005.

National Social Assistance Programme extends to the BPL households and delivers some minimal benefits such as Indira Gandhi National Old Age Pension Scheme, which provides the elderly (aged 60–79) with a monthly pension of Rs. 200, and the Indira Gandhi National Widow Pension Scheme, which provides widows with a monthly pension of Rs. 300.

Promotional measures[20]

Ecuador

The Human Development Credit is one of the more innovative recent aspects of Ecuador's cash transfer programme. Since 2007, qualifying beneficiaries have been effectively allowed to receive their monthly payments in advance—being granted a loan of up to $420 for one year at an interest rate of 2.25 per cent—to be repaid through their monthly transfer payments. To qualify, beneficiaries must propose an income-generating activity. In 2012, almost 12 per cent of the beneficiaries received their cash transfer payments as a loan; women represented 86 per cent of those opting for the credit.

Housing grants: A means-tested housing grant is offered through the Ministry of Housing and Urban Development (MIDUVI). A $5,000 grant is made available to those wishing to purchase or construct (on a lot they already own) a home worth $30,000 or less. The beneficiary must have sufficient savings for a 15 per cent down payment, with any remaining balance financed via credit through one of the government housing loan programmes. This programme also makes available grants of up to $1,500 for home improvements. Financing for this programme has almost doubled under the Correa Government.

Ghana

The School Feeding Programme relies on locally produced food items and has great potential for providing a ready market to local farmers (thereby increasing food production). The programme has three main objectives: (i) increasing school enrolment, attendance and retention; (ii) reducing hunger and malnutrition; and (iii) boosting domestic food production. Girls will benefit from the programme if they attend school. Gender parity in primary school has been attained in almost all the regions—thus young girls are almost just as likely as boys to benefit from this programme.

Karnataka

National Rural Employment Guarantee Act mandates the provision of up to 100 days of employment to any rural household seeking employment. At least one third of beneficiaries should be women. Equal wages are to be paid for women and men, and childcare must be provided. The implementation does not always fulfil these requirements.

Indira Awas Yojana and the Rural and Urban Ashraya Scheme provide loans and subsidies to poor households to construct durable houses. The houses provided must be registered in the name of the woman either solely or jointly with her spouse. The Ambedkar Housing Scheme targets inherently vulnerable groups such as the scheduled castes and scheduled tribes.

In Karnataka, under all housing programmes, more than 1 million houses have been constructed in the past five years and around 1.4 million sites have been distributed. Many parts of the flood-affected districts in the northern region of Karnataka also received constructed houses as part of the relief programme.

Child nutrition schemes: The Integrated Child Development Services (ICDS) was launched in 1975 to improve nutritional health and status of children ages 0–6, reduce child and maternal mortality, morbidity and malnutrition and enhance the capability of mothers to tend to children's health and nutritional needs. This programme covers around 89.3 million children and pregnant and lactating mothers across the country.

Notes: This table draws on the following sources: Ecuador: Armas 2005; ECLAC 2007, 2013; IESS 2013; MIES/PPS 2012a; PAHO 2008; SIISE 2013; Vásconez, 2014. Ghana: Gbedemah et al. 2010; Government of Ghana 2007. India: Aggarwal 2010; Asian Development Bank 2013; Government of India 2011, 2012; Jhabvala and Sinha 2001; La Forgia and Nagpal 2012; Srivastava 2013.

ENDNOTES

1 Defined as single, separated, divorced, widowed or spouse does not currently reside in the same household.

2 The data for Ecuador does not allow this type of intrahousehold analysis.

3 See Doss (2013) for a review of this literature.

4 Although the survey was a household survey, the authors disaggregated results based on the sex of the respondent.

5 Data were not presented on whether there were gender differences in responses regarding the sale of assets.

6 There is an extensive literature on whether communities pool risk, and the evidence is mixed. The pattern seems to be that villages pool some of their risk but do not engage in complete risk pooling (Townsend 1994). Under complete risk pooling, household consumption patterns would vary based on overall shocks to the community but would not change in response to a shock faced only by that household. In effect, they would be insured by the community.

7 Tax reliefs are deductible allowances that reduce taxable income.

8 These are outlined in ILO (2012).

9 Respondents could also indicate 'other' strategies that were not provided in the questionnaire.

10 We also did an analysis characterizing household by their sex composition; we categorized households that are predominately male as those where at least two thirds of the adult members are men. A similar category was created for predominately female households; all other households were categorized as mixed households. However, the results did not differ substantially from those presented here.

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

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

13 For Ecuador we developed an aggregate index of housing quality that combines a more disaggregated scale of the different building materials (for floor, walls and roof) and a more detailed differentiation of amenities than shown in Table 6. By this index (Cronbach's Alpha = .734), households that experience shocks have significantly lower quality housing (9.57) than those who do not (9.94), and similarly for those who experienced severe and very severe shocks.

14 Karnataka is not included in this analysis because of insufficient data. Those that are available indicate 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 this is predominantly owned by women.

15 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.

16 If a shock was reported by at least one respondent, it was counted as a household shock. When both respondents reported the same type of shock in the same year, it was considered the same shock.

17 See Deere et al. (2014) for a detailed discussion of patrimonial violence and the many ways that women's property rights can be violated in the case of separation, divorce and widowhood.

18 Includes initiatives such as social insurance mechanisms that seek to prevent the poor from sinking further into poverty and the non-poor from falling into poverty.

19 Provide social assistance to persons who are unable to work (due, for example, to old age or disability). Include disability benefits and the provision of basic social services for the poor who need special care.

20 Provide opportunities for income generation that aim to stabilize income and enhance skills and include school feeding programmes and microfinance programmes.

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