

Monitoring Household Coping During Shocks: Evidence from the Philippines and Kenya¹

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This paper documents existing theory and evidence on household coping behavior during periods of crises, including natural disasters and climate shocks. We draw on two on-going surveys to examine in more detail the actions – *coping mechanisms* - that households take to minimize the harm from shocks to their wellbeing. Understanding household coping behavior can help in better monitoring and timely assessment of the impacts of shocks at the household level, as well as helping devise policy interventions that can forestall negative long term outcomes. We examine how coping mechanisms vary with income and other household characteristics and the policy lessons that can be drawn from these results.

1. Introduction

Economic shocks and natural disasters, the latter frequently associated with ongoing climate change, disproportionately affect the poor. Poor households cope with unanticipated shocks in a variety of ways by drawing upon individual, community, market and public resources. Although such shocks may be of relatively short duration, an extensive body of literature has shown that, vulnerable households and individuals may be left to cope in ways that have long term adverse consequences for human development. Such adverse outcomes become more likely during aggregate shocks, when many are affected at the same time, and some forms of community, market and public mechanisms may falter. The global economic crisis is one such episode, as are the recurrent regional episodes of droughts, floods and other climate shocks.

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In our study, we first bring together some evidence for impacts on human development occasioned by periods of crises. We then examine the actions – *coping mechanisms* - that households take to minimize the harm from shocks to their wellbeing, by drawing on on-going surveys that document the impact of the global economic crisis. Apart from their intrinsic interest, such mechanisms are also of importance to the policy maker as they link the better observed, macro indicators of a crisis – such as declines in GDP growth, increases in unemployment and falls in export revenues – to longer term negative impacts such as extended periods of poverty, poorer health, stunted children and worse educational outcomes. While many of these longer term consequences may be irreversible, understanding the coping mechanisms that lead to such outcomes may help in identifying a set of observable characteristics that can be monitored for timely assessment of the impact of a crisis at the household level, as well as helping devise policy interventions that could forestall negative long term outcomes. In addition, understanding how households cope also helps figure out why different individuals within the same household may be affected differently.

In Section 2 of the paper, our review of existing work shows extensive evidence of the harmful impacts of aggregate shocks on human development. In Section 3, we sketch a simple microeconomic model of household optimization that captures the tradeoffs faced by households when making decisions during shocks. The model suggests a natural hierarchy where households are likely to choose certain coping mechanisms before others - the less harmful to long term wellbeing prioritized over the more harmful. For example, cutting back on luxury items will come before withdrawing children from school; and cutting down on entertainment will come before cutting down on nutritious food such as meat and dairy. Since poor households do not have all of the options available to wealthier households, the actions chosen by poor households are evidently the least preferred and most harmful options.

In Section 4, our study proceeds to examine evidence from two countries during the global economic crisis of 2009. We use data collected by our partners in the Poverty and Economic Policy (PEP) network as part of their community-based monitoring survey (CBMS) work. These surveys were conducted in a number of countries including Indonesia, Kenya, Lao PDR, the Philippines, Tanzania, and Zambia. Our work uses the data collected in the Philippines and in Kenya and broadly validates the study of housing level coping behavior as a sensitive indicator of the impact of the crisis with important implications for both monitoring and policy design.

2. Theory and evidence on coping during shocks

2.1 Self-insurance and other income related coping

Dissaving and the sale of assets are commonly observed coping mechanisms employed by households. Deaton (1990) helps to ground this behavior in a model of intertemporal household optimization. In this model, real and financial assets can be bought in good times and sold in bad. Given that households have a preference for current over future consumption; assets are never built up too much. There is no accumulation over the long term. Consumption is much smoother than income. However, this is quite different from the permanent income model since consumption smoothing is not perfect.

The basic idea of a precautionary motive is easily captured. Let $\lambda(c_t) = c_t^{-\rho}$ where $\rho > 0$ be the decreasing and convex marginal utility from consumption at time t . For the next period, consider a certain consumption quantity c_{t+1} versus an uncertain quantity that can take values $c_{t+1}-x$, and $c_{t+1}+x$ with some probabilities. The marginal utility from consumption in period $t+1$ is higher under uncertainty, as

seen in Figure 1. Hence, there is a motive to assign higher consumption to a future of uncertainty: the higher the variability in future income, the higher the precautionary motive³.

Deaton (1990) provides a useful framework to organize some of the empirical evidence on savings and self insurance. In another seminal paper, Townsend (1994) examined community based informal insurance in villages in South India and concluded that the poor in these villages do a very good job of insuring each other against unusual swings in income. In particular, it was found that “perfect insurance” against individual shocks, such as those caused by sickness and unemployment, was a “near miss”. What is interesting is that later re-examination by Townsend and other authors upended this conclusion (Townsend (1995), Morduch (1991, 2004), Lim and Townsend (1998)). Rather than informal community based risk sharing, the smoothing of consumption was found to be a result of saving or self-insurance, in line with Deaton (1990). In the three Townsend villages in India, saving was mostly in-kind saving of grain with reserves being run down in lean times.

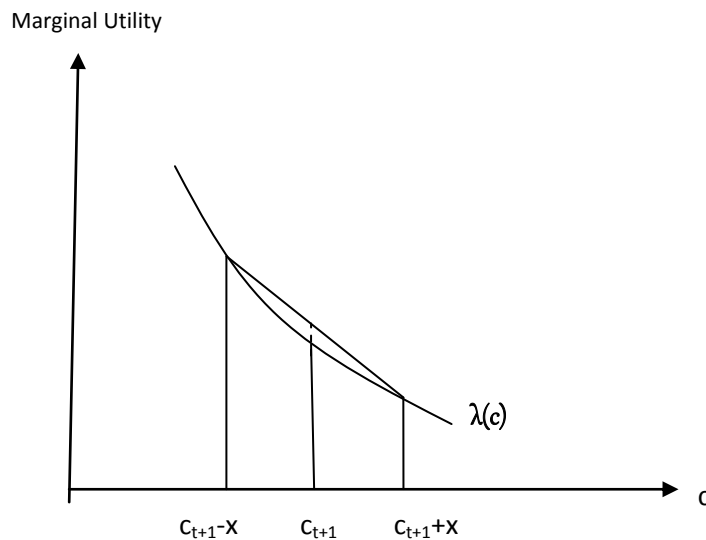


Figure 1: Convex Marginal Utility of Consumption

Townsend (1995) and others distinguish between aggregate and idiosyncratic shocks. Aggregate shocks include natural disasters, climate shocks and economic crises that affect entire communities while idiosyncratic shocks such as an illness or the loss of a job affect a particular household.

Examining the response of rural households to droughts in a panel of roughly 400 resettled households in Zimbabwe, Kinsey et al (1998) find that the main household coping mechanism is the sale of cattle.

Del Nino et al (2001) examine how food security was affected by the 1998 floods in Bangladesh. They find that borrowing was by far the major coping mechanism of the households sampled, in terms of both the value of the resources and the number of households that borrowed. About 60 percent of households in the sample were in debt in the months immediately following the floods.

In a study conducted in Burkina Faso, Sauerborn et al (1996) find that using savings was in all cases the first strategy to cope with financial costs of illness. Yet only in a handful of cases, savings covered illness related costs completely. The key factor influencing the choice of subsequent coping strategies was

³ Essentially the precautionary motive arises from a positive third derivative of the utility function.

whether the household possessed any livestock. Households possessing livestock had two options for the next strategy: they could either take a loan using their animals as collateral or they could sell their animals, pending on their evaluation of market prices. Loans were generally not available to households without livestock. For these poor households, the next coping strategy consisted of wage labor and/or income diversification through crafts. This sequence is depicted in Figure 2 (Figure 1 from Sauerborn et al (1996)).

In contrast to the usual focus on climate shocks and economic crises, Dupas and Robinson (2009) study the impacts and household coping resulting from Kenya's 2007 election crisis. They find that households were much more likely to kill animals and sell durable goods during the 2007 crisis as compared with the previous year.

One of the implications of the Deaton (1990) framework is that a string of bad income draws can result in very low consumption. Severe crises are therefore not well insured. Alderman (1996) uses a panel data set from rural Pakistan that contains information on income, with remittances constituting a large share in this particular setting, and also on credit transactions, sales and purchases of assets, and net changes in bank accounts. The study finds that households have more difficulty in smoothing consumption after successive shocks than with a single shock, thereby capturing the limitations of self-insurance.

Even though many of the implications of Deaton's model have been supported by the empirical evidence, the effectiveness of using assets to smooth income and consumption has been questioned by some work including Dercon (2002). Deaton (1990) implicitly assumes that there exists a safe savings instrument with a positive rate of return. However, to understand saving behavior in risky environments, one needs to acknowledge that assets are risky. Asset lumpiness and terms of trade risk can significantly reduce self-insurance through savings (Dercon 2002). One example when the latter issue can arise is when during an aggregate shock, the market for an asset such as cattle is flooded from the supply side, putting downward pressure on the prices, and reducing the return that any one household can get from selling the asset.

2.2 Food related and other household coping

Even if self insurance is an effective coping mechanism, there are other dimensions of frequently observed coping behavior that are not captured by the self-insurance model. There is an extensive literature on coping mechanisms that brings out several significant stylized facts. Skoufias (2003) provides an overview of 12 studies examining two broad themes: the possibly adverse impact of household coping strategies on various dimensions of well-being (such as consumption and child nutrition); and some of the ex-ante and ex-post strategies that public agencies can adopt to be more effective in protecting households from the potentially adverse impacts of aggregate shocks. Other useful surveys are by Alderman and Paxson (1994), Morduch (1995,1999) and Townsend (1995). Examining coping behavior in response to household specific idiosyncratic shocks, Oldewage-Theron et al (2007) study household food security and coping strategies of an informal settlement in the Vaal Triangle and observe that, faced with shortages, the coping strategies that were employed by the female caregivers in the households were procuring and cooking a limited variety of foods, maternal buffering by limiting the caregiver's intake to make food available for the children, skipping of meals, and limiting portions.

The Coping Strategies Index (CSI) (WFP and CARE 2008) is meant to be a rapid indicator of household food security. The Coping Strategies Index (CSI) is calculated using data from a survey that is short and can be implemented relatively quickly. Its measurement involves recording the severity and the frequency of relevant consumption coping strategies. The index is calculated by weighting each strategy

by its frequency and also its severity. Severity will normally be location - specific and it is emphasized that the weightings should be developed with local focus groups.

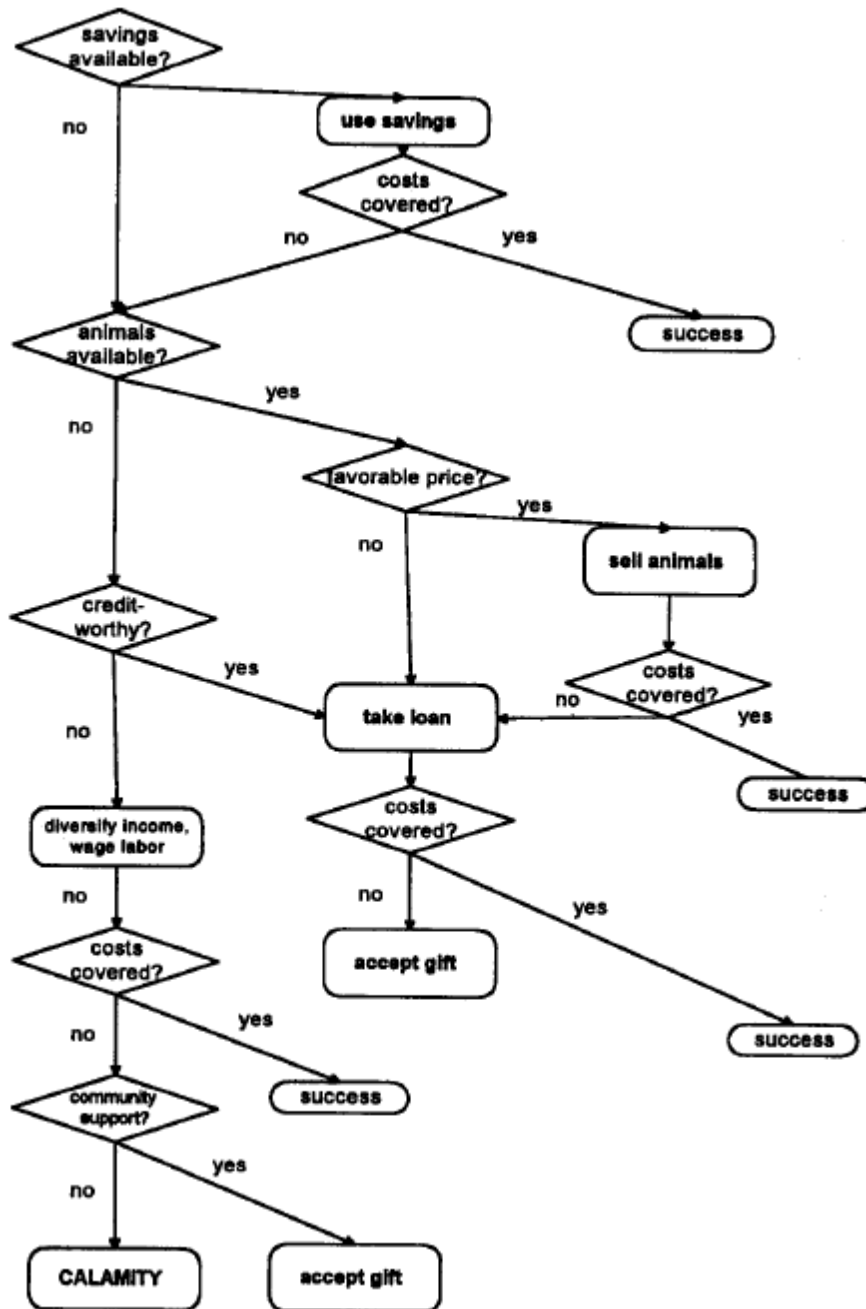


Figure 2: Sequence of strategies to cope with financial costs from Sauerborn et al (1996)

Not surprising given the extent of food related coping, natural disasters and economic crises result in adverse impacts on child nutrition (see for example Handa and King 2000 and Carter and Maluccio 2000). Even short-lived shocks can then result in long term consequences for the well being of future generations. There is considerable evidence that child malnutrition is correlated with lower school

achievement, attainment, lower health as an adult and lower productivity as an adult (Glewwe, Jacoby and King 2001). For Zimbabwean children who were 12-24 months old when affected by a drought, Hoddinnot and Kinsey (2001) find that stunted preschoolers have lower height during adolescence, delayed school enrollment and reduced grade completion. The shock impact translates to a 7 percent loss in lifetime earnings for affected children.

Dupas and Robinson (2009) also find that the crisis increased the likelihood that women who supply transactional sex chose to engage in unprotected sex, increasing the risk of HIV/AIDS transmission. It is less common to find education related coping. When it comes to schooling there are countervailing income and substitution effects. This is especially true if the shock is accompanied by falling wages and diminished work opportunities, which reduce the opportunity cost of being in school. However, Frankenberg, Thomas and Beegle (1999) find that enrollment rates dropped during the Indonesian financial crisis, especially for the poor and those in rural areas.

Empirical evidence also highlights the harmful intra-household consequences of some of the informal strategies of the poor to manage and cope with risk. Women and girls are particularly vulnerable to household income shocks and during crisis periods (Dercon and Krishnan 2000). When households adjust to these events, women and girls often shoulder a heavier load in the adjustment and face more of the negative consequences.

Compton et al (2011) draws together evidence from a number of studies on the effects of the 2007-2008 food price spike. They find that high food prices increased malnutrition in young children, and poverty. They report nearly all households surveyed reporting eating less preferred food as well as the use of credit and savings as a widespread coping mechanism. Adults, in particular 'mothers and older sisters eating less, was recorded by more than a quarter of households in eight of 20 surveys.

One of the studies covered in Compton et al (2011) is Reyes et al (2008) from the Philippines that reports on a community-based monitoring survey (CBMS). The survey covered January to June 2008, a period of soaring rice and fuel prices, and covered three sentinel sites or *barangays* in the Philippines. Households were found to adopt a number of coping strategies in response to the high prices. 23 percent of households in the rural barangay shifted to subsidized National Food Authority (NFA) rice.

Changes in the composition of food consumption depend on the price elasticity of the staple and other food items. In parts of China, a rise in the price of rice and wheat led to lower consumption of these cereals and increased consumption of pulses (Jensen and Miller 2008). On the other hand, over two thirds of households in rural Bangladesh reported maintaining their consumption levels of rice despite price increases of 60 percent, while 8 percent households actually ate more rice, cutting back on more expensive and nutritious dietary items, reflecting the low (and for some positive) price elasticity of staple rice (Raihan 2009).

In more evidence on the food crisis, D'Souza and Jolliffe (2010) investigate the impact of rising wheat prices—during the—on food security in Afghanistan. Exploiting the temporal stratification of a unique nationally-representative household survey, the analysis finds evidence of large declines in real per capita food consumption corresponding to the price shocks. Similar to the finding in Bangladesh, the data reveal smaller price elasticities with respect to calories than with respect to food consumption, suggesting that households trade off quality for quantity as they move toward staple foods and away from nutrient-rich foods such as meat and vegetables.

Preliminary evidence available from the global financial crisis reaffirms these themes while introducing some new ones. The Institute of Development Studies undertook a set of rapid qualitative assessments in five countries (IDS 2009): Bangladesh, Indonesia, Jamaica, Kenya and Zambia. The nature and severity of household level impacts was diverse but it was commonly found that people were reducing the quality and diversity of food, buying lower cost items, gathering wild foods, eating less and going

hungry. In the case of Indonesia, McCulloch and Grover (2010) take advantage of the availability of both pre and post crisis nationally representative data to validate some of the results from this qualitative study.

3. A two period model of household optimization

We think of a representative household that lives for two periods and each period, consumes two goods, x and y . We think of x as a staple food and y as all other consumption, including other, non staple food items that the household consumes. In either period, the preference of the household is to consume a minimum amount x_{\min} of the staple x . Consumption of x and y in period i ($i=1,2$) is denoted by x_i and y_i . Prices of x and y are 1 and p_y respectively.

The household has access to resources M_i in period i . We think of M_1 very broadly and besides income, it includes liquid assets owned by the household. Therefore, in the household's budget constraint, M_1 is the sum of resources that the household commands after it has made all decisions relevant to taking loans, selling assets and drawing upon savings.

We assume that in period 1, the household can use some of M_1 to buy a liquid asset A that can be carried over to period 2. (For now, any positive amount of A can be purchased. Later, we consider a case where A is bought only in the quantities of $A_{\min} > 0$ or higher.) The asset or savings instrument in the model can be thought of as either a physical asset or human capital such as education. The asset yields a positive return so that an amount of asset A is worth rA in period 2 where $r > 1$. Let the price of A be p_A . Assume the prices of the two goods and the asset are constant across the two periods. In period 2 then, total resources available to the household are M_2 and rp_AA , the market value of the assets bought in period 1.

In period 1, the household cares about both current consumption and future (period 2) consumption. We make the standard assumption that present consumption is more valuable than future consumption or that a discount factor $\delta < 1$ applies to future consumption.

It is good to state up front that there are a number of things that this model will miss. Being a two period model, it is incapable of illustrating any long term features of coping behavior including harmful consequences. Perhaps more significantly, it is purely a consumption model. Not including production decisions rules out capturing coping behavior where the household must make tradeoffs between preserving consumption and selling productive assets.

In solving the model we employ the standard technique of working backwards from the second period. In what follows, we analyze income shocks to the household. It is fairly straightforward to include an analysis of price shocks and this will be done in the next revision of the paper.

3.1 Second Period

Let us first consider, for a given amount of assets A from the first period, the optimization problem faced by the household in the second or final period. Assuming a standard Cobb Douglas utility function, the second period maximization problem is the following⁴

⁴ More precisely, the utility function is

$$\text{Max}_{x_2, y_2} U_2 = x_{\min} + (x_2 - x_{\min})^\alpha y_2^\beta, \alpha + \beta < 1$$

subject to the budget constraint

$$x_2 + p_y y_2 = M_2 + r p_A A$$

Consider the case when the household has sufficient resources to buy the minimum desired amount of the staple, x_{\min} . Solving the above problem, we find that the second period utility, as a function of the saving A in period 1 is given by

$$U_2(A) = x_{\min} + (M_2 + r p_A A - x_{\min})^{\alpha+\beta} \left(\frac{\alpha}{\alpha+\beta}\right)^\alpha \left(\frac{\beta}{\alpha+\beta}\right)^\beta \left(\frac{1}{p_y}\right)^\beta$$

Let the constant $\left(\frac{\alpha}{\alpha+\beta}\right)^\alpha \left(\frac{\beta}{\alpha+\beta}\right)^\beta \left(\frac{1}{p_y}\right)^\beta = k$ and let $\delta k = \gamma$.

3.2 First period

We now turn to the household's decision making in the first period. In the first period, the household cares about consumption in the first period as well as consumption in the second period. It is standard to assume that the total utility is the sum of the utilities in the two periods. The household maximization problem is the following

$$\text{Max}_{x_1, y_1, A} U = U_1(x_1, y_1) + \delta U_2(A)$$

3.2.1 General model

Utility from second period consumption as derived above can now be incorporated in the total utility function. The household's optimization problem becomes:

$$\text{Max}_{x_1, y_1, A} U = (1 + \delta)x_{\min} + (x_1 - x_{\min})^\alpha y_1^\beta + \gamma(M_2 + r p_A A - x_{\min})^{\alpha+\beta}$$

subject to the constraint:

$$x_1 + p_y y_1 + p_A A = M_1$$

Consider the case when M_1 , the resources available, are enough to buy x_{\min} . The solution to the above problem gives the following optimum amounts of x_1 , y_1 and A .

$$\text{Max } U_2 = \begin{cases} x_{\min} + (x_2 - x_{\min})^\alpha y_2^\beta & \text{for } x_2 > x_{\min} \\ x_2 & \text{for } x_2 \leq x_{\min} \end{cases}$$

We are assuming that if the household does not have enough resources to consume x_{\min} , the minimum desired amount of the staple, it will like to spend all its resources in consuming the staple food. In that case, the larger the consumption of x , the higher the utility.

$$x_1 = \frac{M_1 - x_{\min} + \frac{(M_2 - x_{\min})}{r}}{1 + \frac{\beta}{\alpha} + r^{\frac{\alpha+\beta}{1-\alpha-\beta}} \delta^{\frac{1}{1-\alpha-\beta}} \left(\frac{\alpha+\beta}{\alpha}\right)} + x_{\min}$$

$$y_1 = \frac{\beta}{\alpha p_y} \frac{M_1 - x_{\min} + \frac{(M_2 - x_{\min})}{r}}{1 + \frac{\beta}{\alpha} + r^{\frac{\alpha+\beta}{1-\alpha-\beta}} \delta^{\frac{1}{1-\alpha-\beta}} \left(\frac{\alpha+\beta}{\alpha}\right)}$$

$$A = \frac{1}{rp_A} \left(\frac{(r\delta)^{\frac{1}{1-\alpha-\beta}} \left(\frac{\alpha+\beta}{\alpha}\right) (M_1 - x_{\min} + \frac{(M_2 - x_{\min})}{r})}{1 + \frac{\beta}{\alpha} + r^{\frac{\alpha+\beta}{1-\alpha-\beta}} \delta^{\frac{1}{1-\alpha-\beta}} \left(\frac{\alpha+\beta}{\alpha}\right)} - M_2 + x_{\min} \right)$$

In each of the above expressions, it is checked easily that the derivative with respect to M_1 is positive. As we would expect, the higher the income the more the consumption of x and y , and investment in A ; and vice versa.

It is useful to think about the household's decision as a function of M_1 , the resources available in the first period. In the model above, or high enough values of M_1 , the household consumes x and y and buys a certain amount of the asset A . This is the case that we have considered in this section so far. On the other hand, if in either period, M_1 is lower than (what is required for consuming) x_{\min} , the household consumes only x .

A feature of our model is that, in general, households stop investing in the future, for example by withdrawing children from school, before reducing other consumption. In particular, subsistence consumption of the staple is prioritized above all other expenditures.

3.2.3 Minimum scale of the asset

Now consider the case where there is a certain minimum quantity of A , A_{\min} that can be bought. For assets such as a child's education, it becomes conceivable that small quantities of the asset yield no returns. A child who goes to school for a certain minimum number of years, A_{\min} , is able to obtain a higher paying job. For fewer years of schooling than A_{\min} however, there is no return on the investment or no income above the default or reservation wage.

Hence the household will only buy A in quantities $A > A_{\min} > 0$. The first period optimization is now given by the following.

$$\text{Max}_{x_1, y_1, A} U = \begin{cases} (1 + \delta)x_{\min} + (x_1 - x_{\min})^\alpha y_1^\beta + \gamma(M_2 + rp_A A - x_{\min})^{\alpha+\beta} & \text{for } A \geq A_{\min} \\ (1 + \delta)x_{\min} + (x_1 - x_{\min})^\alpha y_1^\beta + \gamma(M_2 - x_{\min})^{\alpha+\beta} & \text{for } A < A_{\min} \end{cases}$$

Again, we think about the household's decision as a function of M_1 , the resources available in the first period. Consider first the case of a high enough M_1 such that the household is consuming x and y and buying a certain amount of the asset $A > A_{\min}$. Below a certain value of M_1 , the household will not be able to afford the asset and will consume only x and y . Finally, if $M_1 < x_{\min}$, M_1 is not enough to buy the minimum desired amount of the staple, the household gives up consuming y and buys as much of x as it can. Since the price of x is 1, the maximum amount of x the household can buy is also M_1 .

Our model indicates that in the face of an income shock households cut down on investments that yield future returns. Important examples of this could be children's education. With lower and more uncertain returns, women's education is threatened before men's. Next, the consumption of non essential food items is reduced. Even larger shocks lead to insufficient consumption of the main staple and destitution.

3.3 An example

Through a simple illustrative example, we explain how the model indicates the kind of behavior we can expect households to exhibit as they cope with an income shock. Moreover, we show how, in the face of income shocks, the model predicts different behaviors for rich and poor households.

When the realization of M_1 is lower than what is expected by the household, we say the household has experienced an income shock. The household's precise behavior depends both on the usual, expected income level of the household and the size of the shock.

Consider two households, Household A and Household B with usual period 1 income levels M_A and M_B where M_A is considerably larger than M_B , so that Household A is richer than Household B. Moreover, the income level of Household B is just slightly above x_{\min} , the minimum amount it likes to spend on the consumption of the staple x . Suppose both household receive the same income shock which results in a reduction in their income levels by the amount Δ .

Depending on the resources that they have access to, both households will cope by borrowing, accessing their savings or perhaps selling assets. In a study of household strategies for coping with famine in Africa, Corbett (1998) finds evidence that the first assets to be sold are those that are primarily stores of value. We may, however, expect the sale of livestock to be delayed both due to its productive role and also due to possibly unfavorable terms of trade in times of crisis. If excess supply makes the price of livestock fall, the household might wait to sell livestock and sell it only as a last resort, also hoping for better returns in the meantime (see Dercon 2002).

As indicated by Sauerborn et al (1996), the next plausible recourse of households could be to seek additional sources of income. This can range from working members looking for additional sources of income and work to women and even children joining the workforce to augment the household income. Suppose that both households have shored up their resources through the means available to them so that after the shock, their income levels are $M_A - \Delta_A$ and $M_B - \Delta_B$ are such that while $M_A - \Delta_A > x_{\min}$, $M_B - \Delta_B < x_{\min}$. While Household A still remains above the threshold x_{\min} , Household B is now below it.

As a result of the income shock, Household A will have to cut back on its consumption and investment. If it is feasible to buy any amount of A, the household will still buy A but less than before. If A can only be bought in a certain minimum quantity A_{\min} , the household may be able to still afford it or may have to give up investing in A completely. It will however continue to consume both x and y , in lower quantities than before. Household B on the other hand, will not have any resources to invest in A, will not consume any y and will also be forced to cut back on the consumption of the subsistence good x , to below the subsistence level x_{\min} .

If we think of the asset A as children's education, we can see how, in the event of an income shock, richer households may be able to keep their children in school. Poorer households on the other hand, may have to cope by withdrawing their children from school, to be able to conserve their food consumption. While rich households may have to cut back on the non essential consumption good y , it is likely that a poor household has to give it up completely – we are therefore more likely to see a poor

household consuming only the staple food x. Also, when it comes to the coping behaviour of reducing the intake of x below the subsistence level we are much more likely to see this in a poorer household. Households with better prospects to start with have a larger number of benign coping options available.

The next section shows how these predictions are validated from household level data from the Philippines and Kenya.

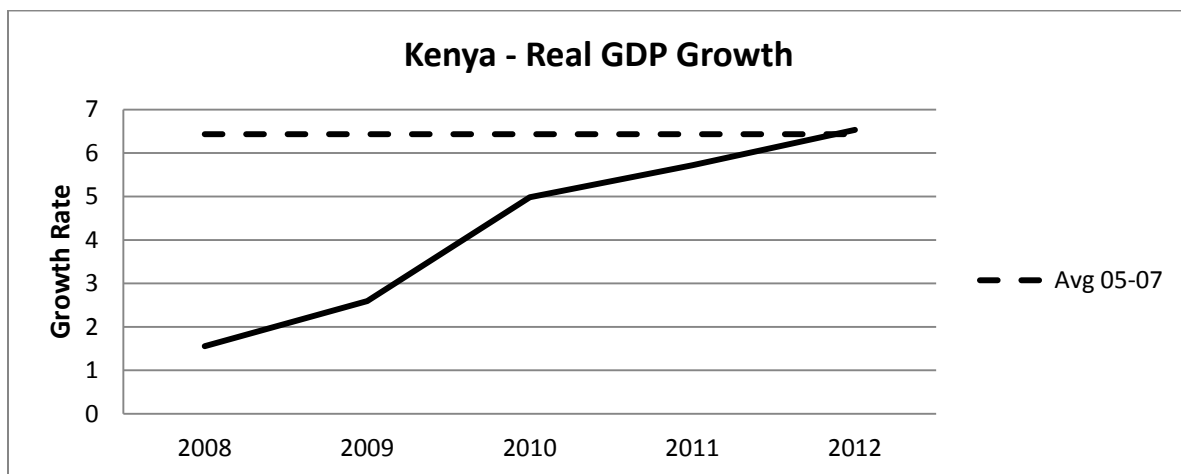
4. CBMS on the Global Financial Crisis – Philippines and Kenya

By 2009, the financial crisis that had struck in the last quarter of 2008 had transmuted into a full-blown global economic crisis, with most developing countries feeling the impacts. Both the Philippines and Kenya, for example, experienced sharp and significant economic slowdowns, as shown in Figures 3 and 4 which demonstrate real GDP growth over the period 2008-2012.



Source: IMF WEO, April 2011

Figure 3: Real GDP Growth in the Pilippines



Source: IMF WEO, April 2011

Figure 4: Real GDP Growth in Kenya

As it turns out, the Community Based Monitoring System (CBMS) of the Poverty and Economic Policy (PEP) Network has been conducting household surveys in selected communities across Africa, Asia and Latin America since 2002. The CBMS methodology includes the selection of sentinel sites followed by the survey of all the households at each site to develop locally relevant development statistics, by involving community and local government workers and, developing local capacity to continue the work. In continuation of their on-going work, CBMS workers embarked on estimating the household level impact of the global economic crisis in a number of countries including the Philippines and Kenya⁵. In addition to their 'core' questionnaires, an additional 'GFC' (Global Financial Crisis) questionnaire was designed to capture household level impacts of the economic crisis. Appendix 1 includes the CBMS GFC questionnaires for the Philippines and Kenya, and Table 1 presents summary statistics⁶.

	Philippines				Kenya			
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Household size	4.38	2.25	1	14	5.00	2.66	1	24
Number of females	2.16	1.34	0	8	2.42	1.57	0	12
Number of children	1.47	1.49	0	9	2.53	2.03	0	16
Children under 5	0.54	0.80	0	5	0.85	0.98	0	7
Number of dependents	1.79	1.51	0	9	2.66	1.97	0	16
Household per capita income (local currency)	53898.10	451468.60	0	31400000	7075.95	22681.07	0	1203250
	Number	Percentage			Number	Percentage		
Number of households	4954				5846			
Female headed households	976	22.91			734	12.57		
Head of the household with at least elementary education	3603	84.56			2194	37.56		
Head of the household with at least high school education.	2604	61.11			298	5.10		
Households receiving assistance from government programs	2977	60.09			3353	57.36		

Table 1: Household Characteristics in the data

⁵ Other countries include Indonesia, Lao PDR, Tanzania and Zambia.

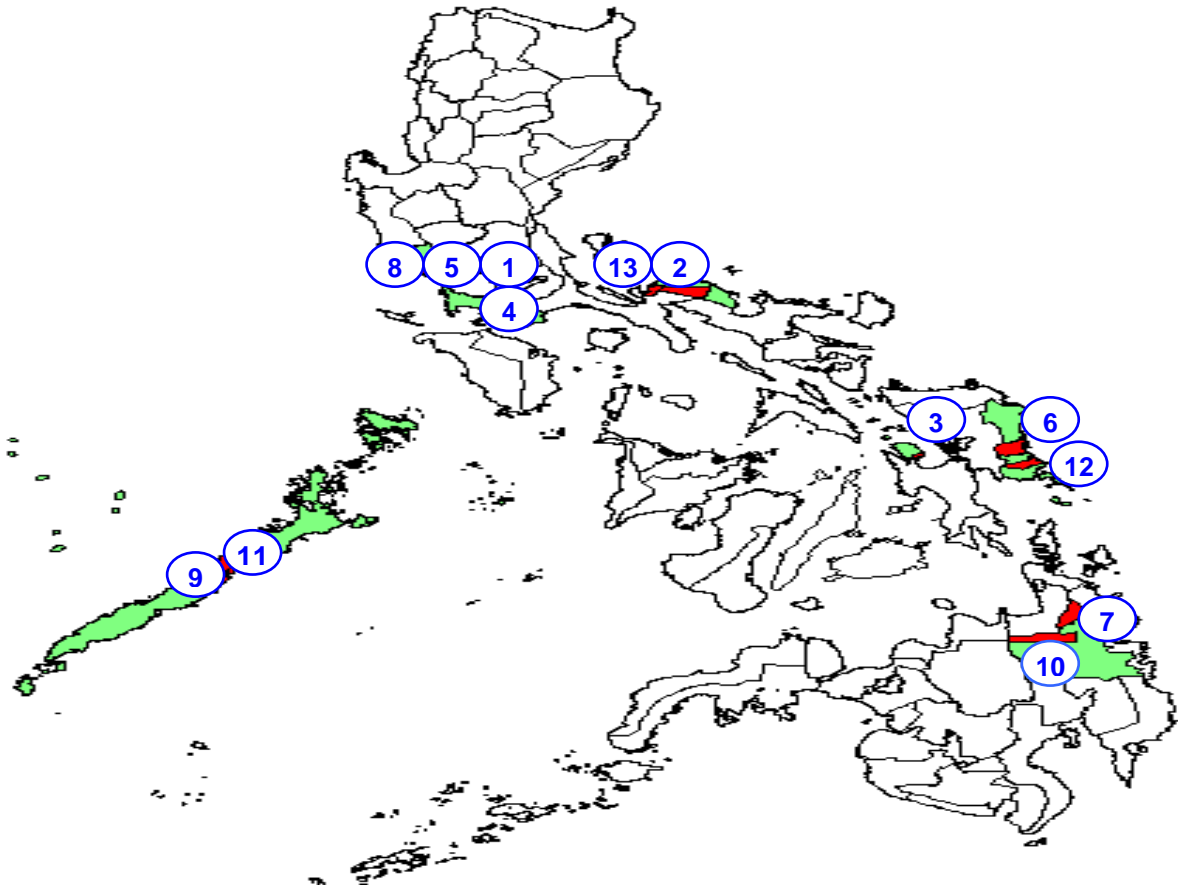
⁶ In the Philippines, it was possible to keep track of 2702 identified households over both the current and a prior (2006) survey round, resulting in a two-period panel.



Source: Own elaboration based on data from Bangko Sentral ng Pilipinas

Figure 5: Total Exports from the Philippines

4.1 The Philippines study



Source: CBMS 2009

Figure 6: Map of sentinel sites

In the rest of this section we consider and analyze this data first for the Philippines and then for Kenya. In Kenya, we find that households seem to be coping in response to a number of ongoing shocks including conflict and natural disasters such as droughts and floods. It is hard to parse the impact of the economic crisis. However, we are able to analyze regularities in coping behavior that arise in response to this broad range of crises.

In the Philippines, the principal macro channels through which the crisis was transmitted involved exports and remittances from workers employed abroad. Exports account for a significant part of the country's total GDP (about 47 percent in 2008), with countries such as the USA and Japan making up major buyers. Figure 5 shows the impact of the crisis on the value of exports during the economic crisis. These declines were accompanied by layoffs in the manufacturing sector, displacement of workers and implementation of flexible working arrangements in export-oriented industries (such as garments and electronics) that impacted labour income.

Apart from exports, lower growth in remittances⁷ from overseas Filipino workers (OFWs), and jobs losses faced by OFWs in crisis - affected countries were also important channels. According to the Bangko Sentral ng Pilipinas (BSP), remittances routed through banks grew by 5.6 percent in 2009, markedly lower than the 13.2 percent and 13.7 percent growth in 2007 and 2008, respectively.

Based on the key channels – exports and remittances – an initial scoping study identified thirteen *barangays* (wards/villages) most likely to feel the effects of the crisis, as well as indicators to be monitored at the household and community levels. These barangays are located as shown in Figure 6 and Table 2, with eight in rural areas, four in urban areas outside the National Capital Region (NCR) and one in the (urban) NCR.

Barangay	Municipality/City	Province	Households		Population	
			Magnitude	Proportion	Magnitude	Proportion
Urban NCR			856	17.3	2,941	13.7
1 - 192	Pasay City	NCR-4	856	17.3	2,941	13.7
Urban Outside NCR			1,511	30.5	6,777	31.6
2 - Gumamela	Labo	Camarines Norte	432	8.7	2,060	9.6
3 - Magbangon	Cabucgayan	Biliran	259	5.2	1,230	5.7
4 - Poblacion III	Santo Tomas	Batangas	466	9.4	2,086	9.7
5 - Villa Angeles	Orion	Bataan	354	7.1	1,401	6.5
Rural			2,587	52.2	11,736	54.7
6 - Ando	Borongon	Eastern Samar	174	3.5	892	4.2
7 - El Rio	Sibagat	Agusan del Sur	244	4.9	1,180	5.5
8 - Maligaya	Mariveles	Bataan	938	18.9	3,661	17.1
9 - Masikap	Puerto Princesa City	Palawan	227	4.6	952	4.4
10 - Piglawigan	Esperanza	Agusan del Sur	273	5.5	1,452	6.8
11 - Salvacion	Puerto Princesa City	Palawan	237	4.8	1,084	5.1
12 - San Miguel	Llorente	Eastern Samar	269	5.4	1,372	6.4
13 - San Vicente	Santa Elena	Camarines Norte	225	4.5	1,143	5.3
Total			4,954	100.0	21,454	100.0

Table 2: Total number of households and total population per barangay

⁷ In 2008, total remittances to the Philippines added up to 10.8 percent of GDP.

In keeping with the CBMS methodology, all households in the selected sites were included in the survey, thus covering 4,954 households with 21,454 members. The survey was conducted in April 2009, with respondents being asked about changes over a six month reference period, from November 2008 to April 2009. It was also possible to keep track of some individual households from a previous survey in 2006 and as a result, panel data is available on 2702 households, with one round of pre-crisis and one round of post-crisis data.

In addition to the existing CBMS core indicators, additional outcome indicators were monitored to determine the ways in which households were impacted by the crisis, and how they were coping with the effects⁸.

When asked directly about the impact if any of the crisis, close to 95% of the households reported that they were affected by the crisis, albeit to varying degrees as seen in Figure 7⁹.

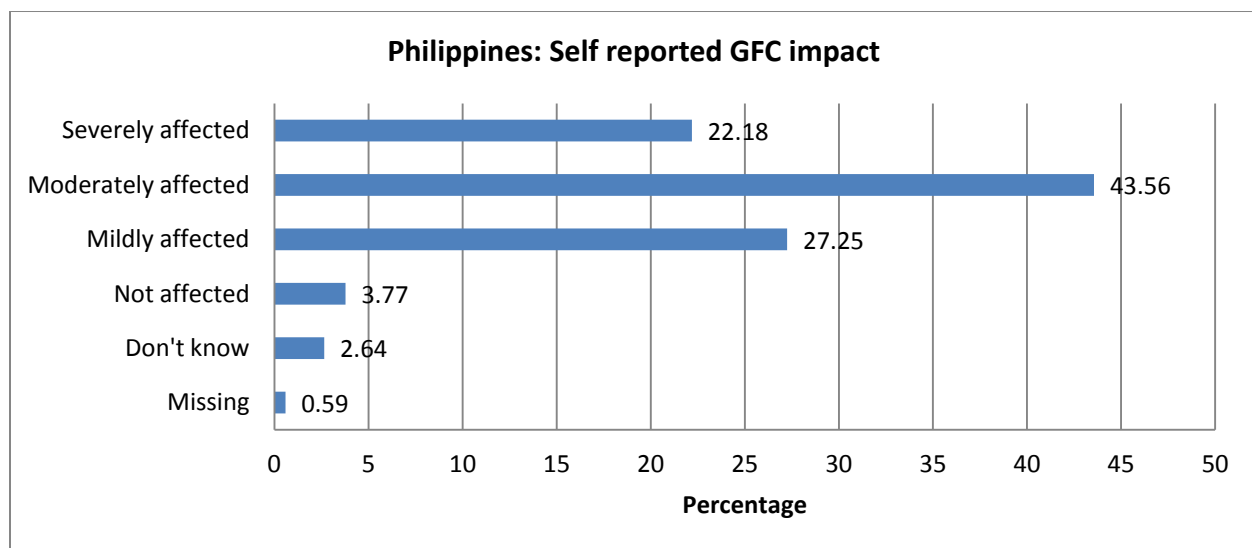


Figure 7: Households (percentage) reporting different degrees of GFC impact

This self-reported assessment is supported by other evidence seen in the data. Within the 2702 households for which information from 2006 is also available, and which reported a moderate or severe impact from the GFC, there is a small, but perceptible shift in the real *per capita* income distribution functions towards the left, with the effect being especially marked below the poverty line of 18,000 pesos¹⁰ (Figure 8 top and bottom). The red lines in the two panels show that the distribution of inflation adjusted per capita income is shifted left, towards lower incomes, in the post-crisis survey covering the same set of households. We can see in the second panel that a significant mass of households from the

⁸ The rider GFC questionnaire designed for this purpose was pre-tested in a few households, and then modified before use.

⁹ 375 households (7.57 percent) reported being affected by one of the direct transmission channels such as loss of a job, decline in remittances, decline in the frequency of remittances and others. These questions on the direct impacts are likely to miss the multiplier effects of any shock and therefore underreport the total impact of the crisis.

¹⁰ More precisely, the poverty lines vary across the barangays. The average across the barangays in this study is 17,637.62 pesos.

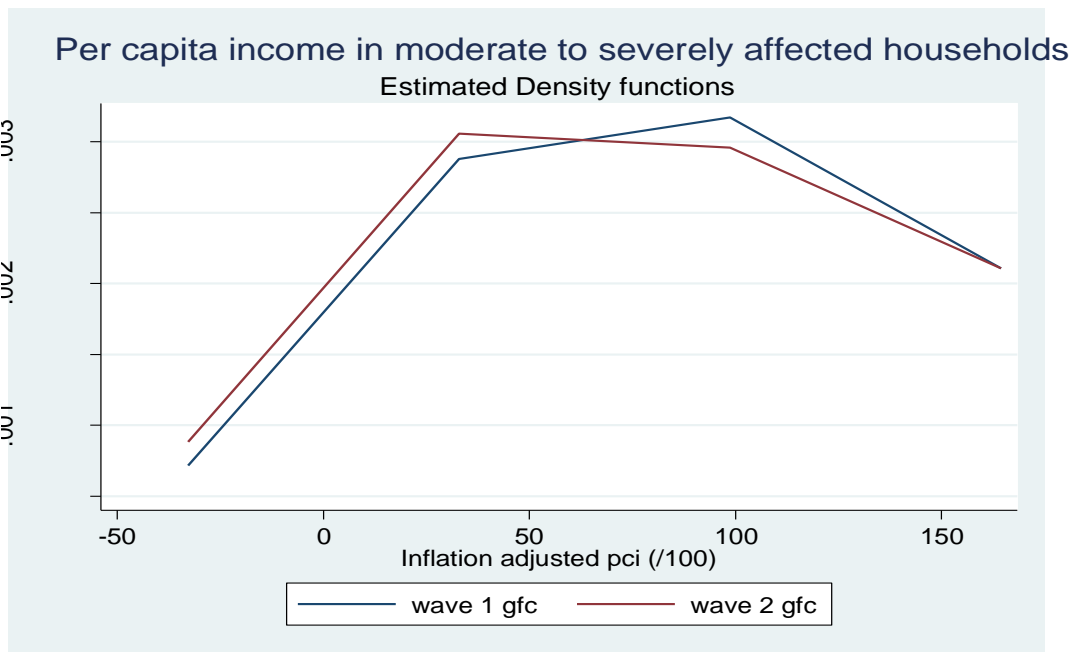
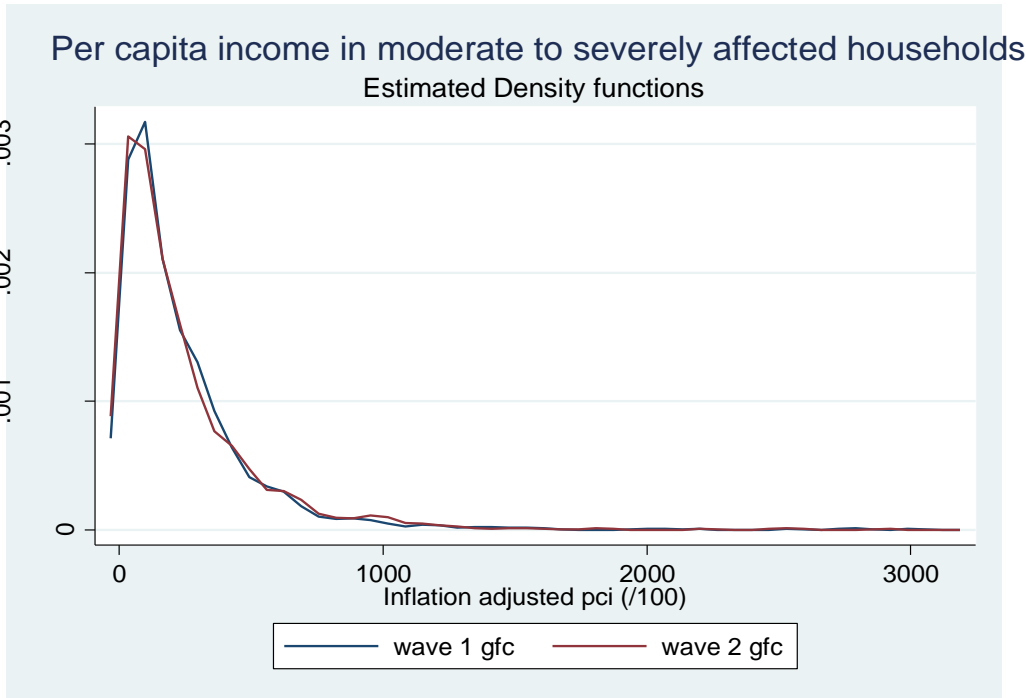


Figure 8: Distribution of per capita income

2006 survey moved below the poverty line, corroborated by Figure 9 which shows the cumulative distribution of the inflation adjusted per capita income in the two rounds. This seems to justify that for

this part of the population at any rate, reporting a moderate to severe impact of the crisis is corroborated by a corresponding change in poverty status¹¹.

We now turn to the question of how households coped with the economic crisis. Unfortunately, the questions related to coping behavior that are part of the GFC questionnaire are not part of the 'core' questionnaire that was administered in 2006 and 2009: as a result, we are unable to compare (for example) the relative frequency of identified coping behaviours in the 2009 survey with those in the 2006 survey in order to answer, directly, the question of what additional burdens the economic crisis placed on households. However, as the self reported impact is borne out by changes in the poverty status of households, we take the self reported impact to be a reliable indicator for inferring coping behaviour occasioned by the crisis. In the rest of this paper we return to the larger set of 4954 households surveyed through the GFC questionnaire in 2009, where they were asked about behaviour changes over a reference six month period of November 2008 to April 2009¹².

Notwithstanding the attribution related issues mentioned above, we find that the survey asked questions about a wide array of coping strategies related to augmenting income; changing food consumption; and altering the use of education and health. These are summarized in Table 3 below. In general, respondents were asked to report how much more they were using different (coping) strategies in the last six months than before this period. Household characteristics such as incomes, location composition, levels of education and other features were also recorded.

Figure 10 shows how coping varies among households who self identify as being significantly affected by the crisis and others. Compared with households that reported a mild impact or no impact from the crisis, households that reported a moderate to severe impact are seen to utilize all the coping strategies more, except the use of savings.

Table 4 shows the frequency of some of the coping behaviours of interest by income quintiles: the first being the lowest, and the fifth the highest. This table shows that households in all quintiles were affected, and adopted some combination of coping mechanisms.

¹¹ This effect is also seen (albeit to a smaller extent) in the mean values of the real per capita income reported for these households, which fell from 23,000 pesos in 2006 to 22,400 pesos in 2009.

¹² Another difficulty with attributing changes in behaviours to the impact of the economic crisis is our inability to take seasonal variations into account. According to the FAO, for the Philippines, "the wet-season rice crop in the north lasts from June to November and the dry-season crop from January to May-June. In the south it is the reverse: wet-season crops last from October-November to March-April and dry-season crops from May-June to November". It is therefore plausible that at least some of the households in the sample would have resorted to coping behaviours as a matter of routine in the agricultural lean season, and not due to – especially – the economic crisis. However, we are unable to identify the relative contribution of this factor to the observed behaviours.

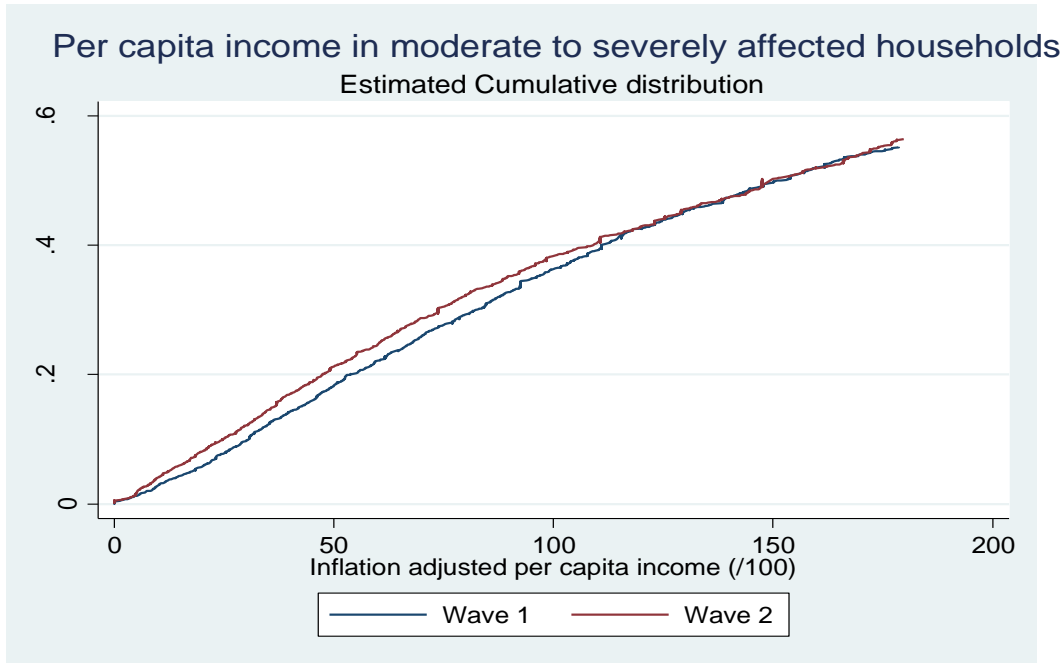


Figure 9: Cumulative distribution of per capita income

Category	Examples
Assets/Income	Borrowing money Selling assets Using savings
Food	Consuming staple food only Reducing Portion size Consuming own harvest
Education	Transferring for private to public school Withdrawing from school Using second hand books/uniforms
Health	Shifting to generic brands Shifting to government clinics Shifting to alternate medication

Table 3: Typical Coping Strategies

Income related coping: Borrowing money is one of the two most prevalent coping strategies, with 37.34 percent of households reporting borrowing to meet various expenses. 13.84 percent of households used their savings while much smaller numbers sold or pawned assets or looked for additional work. Across different income groups, differences were observed in how assets were used to tide over the crisis: the poor are more likely to sell assets while the rich are relatively more likely to pawn. It appears that all

income quintiles were equally likely to use savings to cope with the poor being slightly more likely to use this strategy¹³.

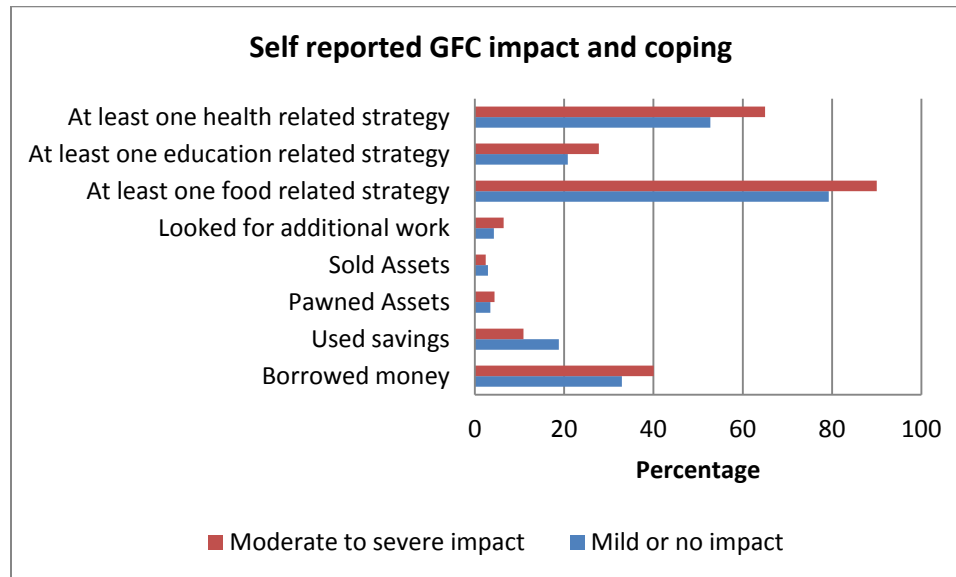


Figure 10: Households (percentage) reporting use of different coping strategies

Coping Strategy	Total	Income Quintile				
		Lowest	2	3	4	Highest
At least one food related strategy	85.99	81.85	85.4	85.76	90.3	86.67
At least one education related strategy	25.05	33.17	28.3	24.43	24.44	14.67
At least one health related strategy	60.4	56.85	57.91	64.29	64.44	58.37
Borrowed money	37.34	38.15	41.74	38.26	39.72	28.63
Used savings	13.84	16.44	14.6	12.95	12.69	12.56
Pawned Assets	4.08	2.06	3.92	4.72	5.59	4.05
Sold Assets	2.56	3.62	3.59	2.21	1.93	1.45
Looked for additional work	5.62	5.73	8.72	5.29	5.17	3.12

Table 4: Coping strategies (percentages), by income quintile

Table 5 shows details on the different sources of borrowing and how borrowing behavior differs in rural and urban households. Community borrowing includes borrowing from a friend, relative, neighbor, a cooperative or an NGO. Private borrowing includes borrowing from a private bank or a private lender. Community borrowing is by far the most common borrowing behavior, with the lower quintiles relatively much more likely to borrow from the community while the higher quintiles are more likely to

¹³ However, we do not have data on which households had savings to use in the first place. As a consequence, we only know what percentage of the full survey population used their savings; we do not know what percentage of households that had savings used their savings. This could matter if a larger proportion of the lower income quintiles had to dig into their savings.

borrow from a private source, possibly at higher interest rates. We also see that private borrowing is much more common in urban areas than rural areas.

Food related coping: A large proportion of households (85.99 percent) used at least one food related coping strategy – with significant differences in these likely to be more common across income groups, as shown in Figure 11. It is quite evident from this that some strategies appear to be more likely to be adopted at lower levels of income than others – for example, reducing portions, and consuming staples only. Each one of these can be quite harmful, especially with respect to nutrition, with potentially severe consequences for the very young, the pregnant, the lactating and those suffering from chronic illnesses such as HIV/AIDS. Moreover, during an extended period, the vulnerability of a household to subsequent shocks as well as the likelihood of long term negative outcomes can go up as a result of resorting to such methods.

	Income Quintile						Rural (%)	Urban (%)
	All (%)	Lowest	2	3	4	Highest		
Tried to borrow money	38.46	39.88	43.36	39.46	39.92	29.46	38.04	38.91
Borrowed money	37.34	38.15	41.74	38.26	39.72	28.63	36.87	37.85
Community borrowing	21.03	22.19	19.95	22.14	21.02	19.56	20.25	21.85
Private borrowing	11.39	7.10	10.49	13.48	12.79	13.69	5.54	15.18
Others	3.37	2.06	3.42	2.89	4.01	4.85	3.72	3.01

Table 5: Households (percentage) borrowing from different sources

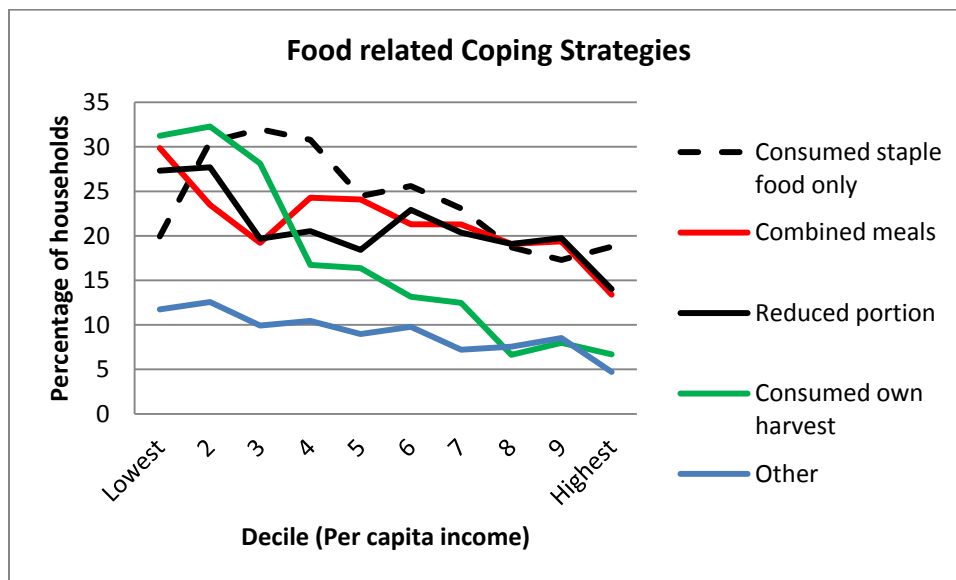


Figure 11: Food related coping mechanisms

Education and health related coping: As far as education related coping mechanisms are concerned, 25.05 percent of households overall reported utilizing at least one such measure. Similar to the food related strategies, education is more likely to be impacted in poorer households. 60.4 percent of all households have to use at least one health related strategy.

Figures 12 and 14 summarize the relative prevalence of income, food, health and education related coping strategies among the poor and the rich. The red bars show the ratio of the prevalence of a coping strategy among the bottom and top quintile of per capita income. The blue bar shows the ratio among the bottom 40 percents and the top 60 percent of the population, by per capita income. Strategies for which the bars are to the right of the bold vertical line are those whose (unconditional) probability is observed to be higher among the poor relative to the rich. Apart from the food related strategies discussed earlier, we observe that education related coping is more likely among the poor; and health related coping is less likely to be so. The poor appear to already be at minimal levels of expenditure with respect to health related services.

A similar analysis in respect of income related coping strategies shows that the poor are significantly more likely to rely on selling assets, and looking for additional work.

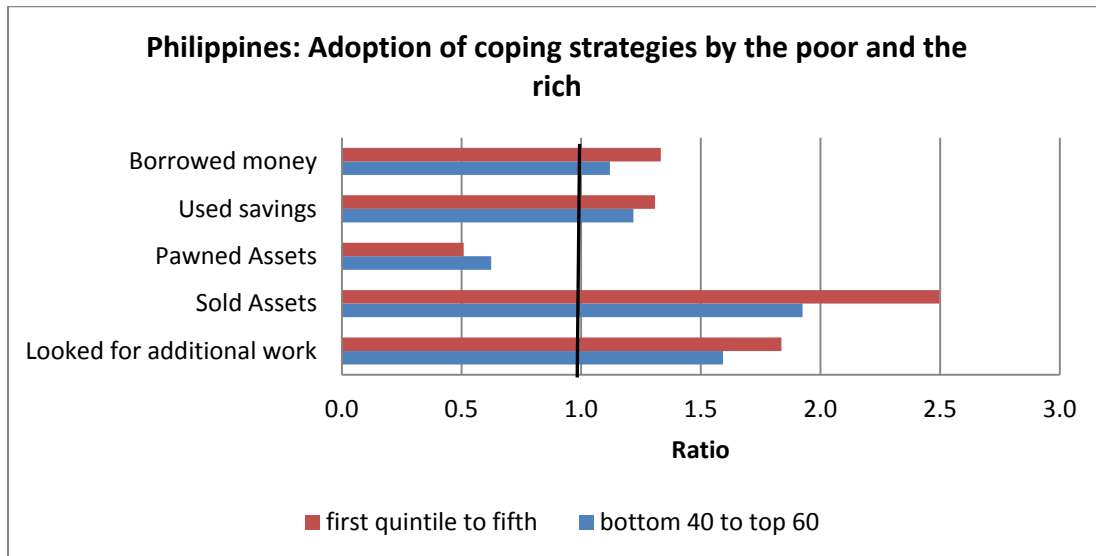


Figure 12: Income related coping across the poor and the rich

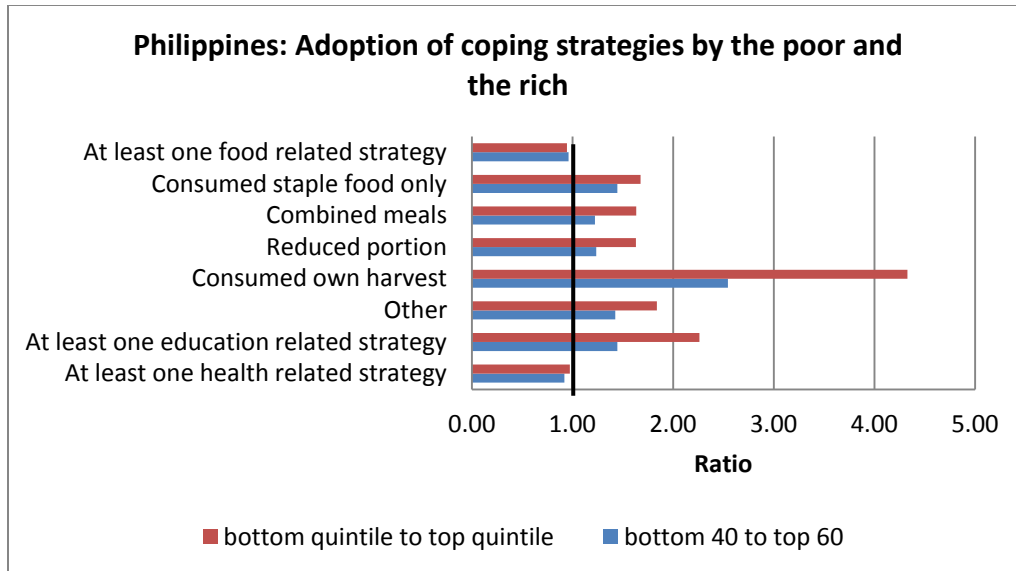


Figure 13: Coping mechanisms across the poor and the rich

These figures present a picture that is consistent with the notion that the poor have significantly less room to maneuver during a shock relative to the rich. The coping strategies available to them are fewer in number, and these – at least those in relation to food and education – may be the ones more likely to lead to negative long term outcomes.

We have seen how some of the more harmful coping strategies such as reducing portions and consuming staple food only are more prevalent among lower income quintiles. To examine this further, and to estimate the extent to which other household characteristics may be contributing to such behavior, we estimate the following probit model:

$$\begin{aligned}
 efood_staple_{bi} = & \alpha + \beta_1 pci100_{bi} + \beta_2 urban_b + \beta_3 femalehead_{bi} + \beta_4 head_highschool_{bi} \\
 & + \beta_5 dummy_assistance_{bi} + \epsilon_{bi}
 \end{aligned}
 \tag{1}$$

where:

$efood_staple_{bi}$: dummy that takes the value 1 if the household i in barangay b reports using the coping strategy: consume staple foods only

pci_{bi} : household per capita income

$pci100_{bi}$: $pci/100$

$urban_b$: dummy that takes the value 1 for urban barangays

$femalehead_{bi}$: dummy for a female headed household

$head_highschool_{bi}$: dummy that takes the value 1 when the head of the household has at least graduated high school

$dummy_assistance_{bi}$: dummy for the household having received assistance from one of the three government programs: Philhealth, 4Ps and NFA Rice access program.

The results are reported in column (1) of Table 6. In Table 6, we see that a higher income level makes it less likely to use the harmful coping strategy of using staples only, confirming the trend seen earlier (see Figure 12). We also see that female headed households are also less likely to use this strategy, perhaps

reflecting that women make better decisions when it comes to coping strategies that have long term harmful effects on children and their nutrition.

Interestingly, urban households are more likely to make their meal less diverse by consuming staple foods only. The sign on the variable *dummy_assistance* is as we would expect: households that are able to access safety nets are less likely to resort to this particular coping strategy. The relevant coefficients in all of the above cases are significant at the 5 percent level of significance.

Adding two variables *fratio*, the proportion of females to adults in the household and *childratio*, the proportion of children to adults in the household (see specification (2) in Table 6), we see that these are not significant, and do not significantly alter the values of the other coefficients. Further specifications of this model are currently being tested¹⁴.

Dependent variable: efood_staple			
Independent variable	Specification		
	0	1	2
pci100	-0.003111 0.000038	-0.000217 0.000039	-0.000200 0.000040
urban	0.585017 0.428869	0.634779 0.043835	0.639635 0.044081
femalehead		-0.231055 0.051112	-0.242407 0.055649
head_highschool		-0.395799 0.045113	-0.395128 0.045322
dummy_assistance		-0.089153 0.043326	-0.098736 0.043707
fration			-0.017140 0.084197
childratio			0.052434 0.027300
Constant	-0.859019	-0.576229	-0.622901
Observations	4611	4611	4596

Notes: 1. Standard errors are reported below the coefficient estimates.

2. Coefficients in boldface are significant at the 5 percent level of significance.

Table 6: Probit results

¹⁴ Analysis of other harmful coping behavior will also be reported in a forthcoming updated version of the paper.

4.2 The Kenya study

The reference period for the study in Kenya is from July 2009 to January 2010. The data was collected in January 2010 in Tana River district (one of the poorest districts in Kenya with about 72 percent of the population living below the poverty line), and surveyed 5,882 households in six sub-locations. One notable characteristic of the region is that very many households reported being affected by factors other than the economic crisis - 90.2 percent by drought, 38.84 percent by ethnic conflict and so on (Figure 14). In these circumstances it becomes especially hard to determine what part of the coping behavior, if any, can be attributed to the economic crisis.

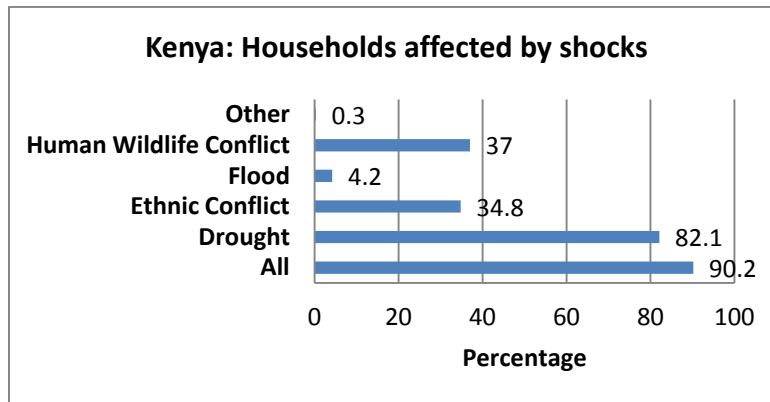


Figure 14: Shocks experienced by households

Notwithstanding such difficulties in attribution (exacerbating a problem seen in the Philippines as well), a rich set of data on coping strategies is available and discussed below. Table 7 shows the adoption of different coping strategies, by income quintile, parallel to the ones adopted by Filipino households.

In Kenya, selling belongings and selling belongings specifically to buy food are widely reported coping strategies, reported by 20.59 and 33.40 percent of households¹⁵. In addition, 26.28 percent households reported a decline in their monthly food expenditure. Common use of food related coping is one of the many similarities in the behavior of households in the Philippines and Kenya. At the same time, there are distinct and important differences between the two countries, indicating the relevance and importance of country-specific approaches.

As seen in Table 7, 11.75 percent households report borrowing as a coping strategy. Borrowing is more common in higher income quintiles, probably reflecting the borrowing constraints faced by lower income households. Figure 15 shows the relative prevalence of income related coping strategies among the poor and the rich confirming that the poor are much less constrained in their ability to borrow and do not have savings to turn to. The only strategy that the poor use more than the rich is selling belongings to buy food.

¹⁵ This question (Q36) had a different reference period than other questions and asked if the household had sold any belonging buy food over the last one month.

Coping Strategy	Total	Income Quintile				
		Lowest	2	3	4	Highest
Decline in monthly food expenditure	26.28	38.87	30.25	18.80	20.09	22.67
Decline in monthly education expenditure	13.29	8.87	7.14	7.63	12.26	12.59
Shifted at least one child from private to public school	4.38	0.68	1.10	1.13	1.79	2.67
Withdrew at least one child from school	1.43	5.63	4.25	3.73	4.09	3.28
Decline in monthly health expenditure	15.93	23.70	15.04	14.64	13.70	11.64
Borrowed money	11.75	6.73	7.90	12.39	13.28	18.19
Used savings	15.60	3.50	6.46	13.08	22.72	32.07
Sold belongings	20.59	13.90	25.23	27.04	20.34	15.60
Sold belongings to buy food in the last month	33.40	40.41	38.57	35.62	29.02	22.67
Sought additional work	3.41	2.05	4.50	3.64	3.23	3.36

Table 7: Coping strategies (percentages), by income quintile

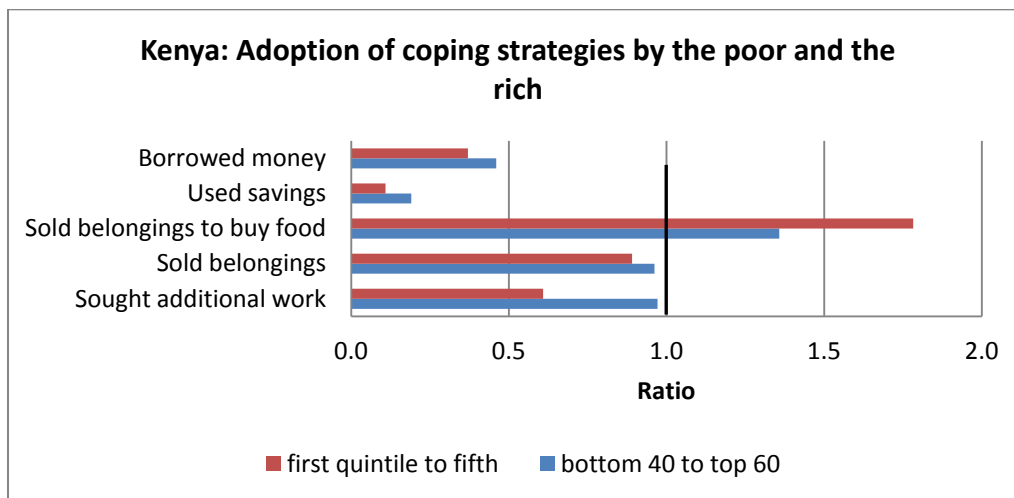


Figure 15: Income related coping across the poor and the rich

Figure 16 shows the relative prevalence of food, education and health related coping strategies among the poor and the rich. The poor are much more likely to have reduced their monthly food expenditure and their monthly health expenditure and also to have withdrawn at least one child from school.

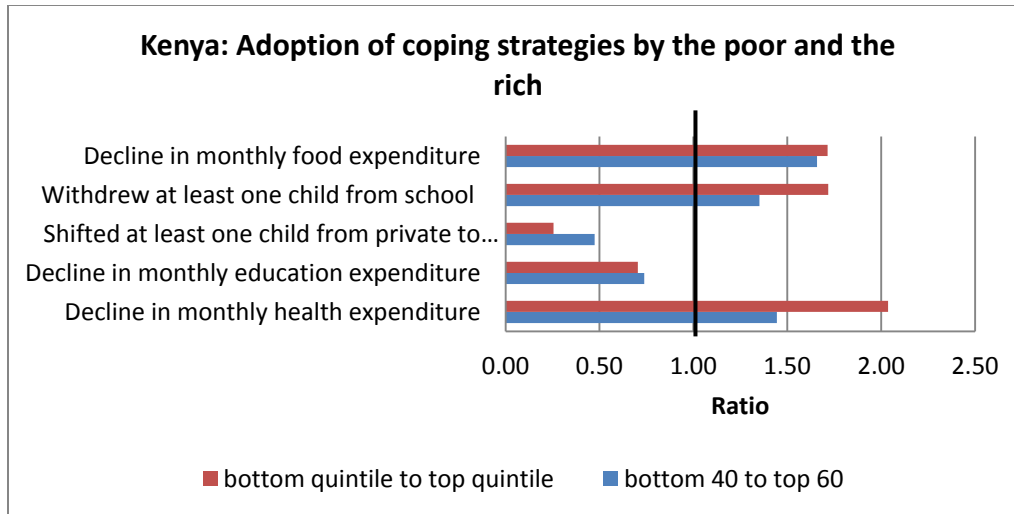


Figure 16: Coping mechanisms across the poor and the rich

The evidence from Kenya shows that it is easier for the upper quintiles to borrow to tide over shocks. A significantly larger proportion of the relatively well off also seem to have savings that they can run down in times of need. Potentially harmful coping behavior on the other hand seems to be more common among the bottom two income quintiles of households¹⁶.

5. Conclusions

It is, by now, well established that adverse shocks that may be of short duration can result in long term human development impacts. An extensive body of literature has documented the mechanisms through which these arise, indicating that household level coping behavior is central to the process, mediating between the onset of the shock and the realization of a poor human development outcome. The current economic crisis had a well-defined, sudden onset at the aggregate level. However, little is known about how the macro shock translated into household level responses, and this paper attempts to address this gap through examining data from the Philippines and Kenya.

This study finds that, in the Philippines, a very large proportion of the households surveyed reported being affected by the crisis, and adopted a range of coping behaviors. Such behaviours began as early as in the first six months after the onset of the crisis, and cut across income deciles. The proportion of people below the poverty line increased, as did the adoption of potentially harmful coping behaviours such as a change towards a less diversified diet, or a decrease in food intake.

In Kenya, the surveyed households seem to be reeling from a number of short term as well as ongoing shocks. Despite this attribution issue, it is clear that the poor have to resort to the less preferred and clearly more harmful strategies. In Kenya, poor households are reducing food and education related expenses. It is also harder for them to borrow in times of shocks.

This analysis suggests that households tend to cope first by using mechanisms (such as borrowing) that are less harmful than others (such as consuming staple food only). However, the poor may not have

¹⁶ Regression analysis for Kenya will be performed in an update to this paper.

recourse to these less harmful mechanisms. Ongoing work in respect of some of the more harmful coping behaviours suggests that apart from income, the gender of the head of the household and access to social protection measures are also important in determining the likelihood of their adoption. The Philippines dataset shows that the urban poor are more likely to engage in coping behavior that threatens long term well being.

Such results could have useful policy implications. For example, they could suggest, from among a plethora of available indicators, a smaller subset that could be more informative in terms of guiding a response for forestalling adverse longer term impacts. This could lead to better, more cost-effective instruments for monitoring. Similarly, they could be used for helping design social protection measures to forestall harmful impacts, as well as for evaluating their effectiveness of different social protection mechanisms. Better monitoring and better design of safety nets becomes particularly important in the context of the consequences from climate change, expected to hit hardest in the African continent. We plan to explore these areas further in future versions of this paper.

Future work also includes a post crisis survey to collect data during the economic recovery (as defined in macroeconomic terms) for continuing analysis of household vulnerabilities and response. This survey will collect panel data on recovery since 2009; as well as coping in response to the food price hike and other shocks that households may face. It will include a section that asks about the sequence in which the household adopts different coping strategies. This analysis will yield important information on the duration of harmful coping and how slowly or quickly such strategies are wound down during recovery, conditional on access to social protection policies; as well as any identifiable sequence in coping behavior.

References

1. Harold Alderman, Saving and economic Shocks in rural Pakistan, *Journal of Development Economics*, Volume 51, Issue 2, pages 343-365, 1996
2. CBMS Draft Study, Coping strategies of Households Affected by Shocks: Selected Sites in Tana River District, March 2011.
3. Pascaline Dupas and Jonathan Robinson, Coping with Political Instability: Micro Evidence from Kenya's 2007 Election Crisis, *American Economic Review*, vol. 100 (2), pages 120-24, May 2010.
4. Harold Alderman and Christina Paxson, A Synthesis of the Literature on Risk and Consumption in Developing Countries, The World Bank, 1992.
5. Mihael R. Carter and John A. Maluccio, Social Capital and Coping with Economic Shocks: An Analysis of Stunting of South African Children, *World Development* Volume 31 Issue 7 pages 1147-1163, 2003.
6. Jane Corbett, Famine and Household Coping Strategies, *World Development* Vol. 16, No. 9 pp. 1099-1112, 1988.
7. Julia Compton, Steve Wiggins and Sharada Keats, Impact of the global food crisis on the poor: what is the evidence?, ODI 2011.
8. Anna D'Souza and Dean Jolliffe, Rising Food Prices and Coping Strategies: Household-level Evidence from Afghanistan, The World Bank, 2010.
9. Angus Deaton, Saving in Developing Countries: Theory and Review, The World Bank, 1990.

10. Carlo Del Nino, Paul A. Dorosh, Lisa C. Smith, Dilip K. Roy, The 1998 Floods in Bangladesh, IFPRI, 2001.
11. Stefan Dercon, Income Risk, Coping Strategies and Safety Nets, The World Bank Research Observer, vol. 17, no.2, pp. 141-166, 2002.
12. Stefan Dercon and Pramila Krishnan, In sickness and in health: risk-sharing within households in rural Ethiopia, Journal of Political Economy 108, pp. 688-727, 2000.
13. IDS, Accounts of Crisis; Poor People's Experiences of the Food, Fuel and Financial Crises in Five Countries, 2009.
14. Frankenberg, Thomas, and Beegle, 1999, *The Real Cost of Indonesia's Economic Crisis: Preliminary findings from the Indonesia Family Life Surveys*, Labor and Population Program Working Paper Series 99-04, RAND
15. Paul Glewwe, Hanan G. Jacoby and Elizabeth M. King, Early childhood nutrition and academic achievement: a longitudinal analysis, Journal of Public Economics, Volume 81 Issue 3, pages 345-368, 2001.
16. Sudhanshu Handa and Damien King, Adjustment with a Human Face? Evidence from Jamaica, World Development Volume 31 Issue 7 pages 1125-1145, 2003.
17. Ori Heffetz, A Test of Conspicuous Consumption: Visibility and Income Elasticities, [Review of Economics and Statistics, Forthcoming](#)
18. Hoddinott, John, and Bill Kinsey. 2001. "Child Growth in the Time of Drought" Halifax, Nova Scotia: Dalhousie University.
19. International Monetary Fund, World Economic Outlook Database, April 2011
20. Robert T. Jensen and Nolan H. Miller, Do Consumer Price Subsidies Really Improve Nutrition?, Harvard University Center for International Development Working Paper 169, April 2008.
21. Bill Kinsey, Kees Burger and Jan Willem Gunning, Coping with Drought in Zimbabwe: Survey Evidence on Responses of Rural Households to Risk, World Development Vol. 26, No. 1 pp. 89-110, 1998
22. Thanmana Leprichakul, Ex Ante and Ex Post Risk Coping Strategies: How Do Subsistence Farmers in the Southern and Eastern Province of Zambia Cope?, 2009
23. Youngjae Lim and Robert Townsend, General Equilibrium Models of Financial Systems: Theory and Measurement in Village Economies," Review of Economic Dynamics 1 (1) pages 59 – 118, 1998.
24. Neil McCulloch and Amit Grover, Estimating the National Impact of the Financial Crisis in Indonesia by Combining a Rapid Qualitative Study with Nationally Representative Surveys, IDS, 2010.
25. Jonathan Morduch, *Risk and Welfare in Developing Countries*. Unpublished Ph.D. dissertation, Department of Economics, Harvard University, 1991.
26. Jonathan Morduch, Income Smoothing and Consumption Smoothing, Journal of Economic Perspectives 9(3), pages 103-114, 1995.
27. Jonathan Morduch, Between the Market and State: Can Informal Insurance Patch the Safety Net?, world Bank Research Observer 14(2), pages 187-207, 1999.
28. Jonathan Morduch, Consumption Smoothing Across Space, in Stephan Dercon, ed., *Insurance against Poverty*, Oxford University Press, 2004.

29. Wilna H. Oldewage-Theron, Emsie G. Dicks and Carin E. Napier, Poverty, household food insecurity and nutrition: Coping strategies in an informal settlement in the Vaal Triangle, South Africa, *Public Health* 120, pages 795-804, 2006.
30. Selim Raihan, Impact of Food Price Rise on School Enrolment and Dropout in the Poor and Vulnerable Households in Selected Areas of Bangladesh, UK Dept for International Development (DFID), March 2009.
31. Celia Reyes, Alellie Sobrevinas and Joel Bancolita, Analysis of the Impact of Changes in the Prices of Rice and Fuel on Poverty in the Philippines, PEP-CBMS 2008.
32. Celia Reyes, Alellie Sobrevinas and Jeremy de Jesus, The Impact of the Global Financial Crisis on Poverty in the Philippines, PEP-CBMS 2009.
33. R. Sauerborn, A. Adams and M. Hien, Household Strategies to Cope with the Economic Costs of Illness, *Soc. Sci. Med.* Vol 43, No. 3. pp. 291-301, 1996.
34. Robert M. Townsend, Risk and Insurance in Village India, *Econometrica* 62, pages 539-592, 1994
35. Robert M. Townsend, Consumption Insurance: An Evaluation of Risk-Bearing systems in Low Income Economies, *Journal of Economic Perspectives*, Volume 9, Number 3, pages 83-102, 1995.
36. Emmanuel Skoufias, Economic Crises and Natural Disasters: Coping Strategies and Policy Implication, *World Development* Vol. 31 No. 7, pp 1087-1102, 2003.
37. Website of the Philippines National Statistics Office, accessed on July 28th 2011. <http://www.census.gov.ph/data/sectordata/datacpi.html>
38. Website of the International Rice Commission, accessed on August 3rd 2011. <http://www.fao.org/rice2004/en/p10.htm>
39. Website of Bangko Sentral ng Pilipinas, accessed in March 2011. <http://www.bsp.gov.ph/>
40. WFP and CARE, The Coping Strategies Index, Field Methods Manual Second Edition, 2008.

Appendix 1: Philippines CBMS Global Crisis Rider Questionnaire

CBMS Global Crisis Rider Questionnaire (FIRST ROUND: NOV 2008 - APR 2009)

ID No. _____

A. RETURNING OVERSEAS FILIPINO WORKER						
(1) During the past 6 months, was there any OFW in your household who returned from work abroad? <input type="checkbox"/> 1 Yes (Go to 2) 2 No (Go to 11)	(2)		(3)	(4)	(5)	
	What is the name of the OFW who returned?		Is ___ male or female?	Is ___ still in the Philippines?	In what country did ___ work abroad?	
	NAME		1 Male 2 Female	1 Yes 2 No	COUNTRY	
	1					
	2					
3						
4						
(6)		(7)		(8)	IF YES IN (8) (9)	(10)
What was ___'s primary job abroad?		What industry was ___ working in (refer to Question 6)?		Was ___ working overseas to fulfill a contract?	Was ___'s work land-based or sea-based?	Why did ___ come back from work overseas?
JOB	(SEE CODES BELOW)	INDUSTRY/SECTOR	(SEE CODES BELOW)	1 Yes (Go to 9) 2 No (Go to 10)	1 Land-based 2 Sea-based	(SEE CODES BELOW)
1						
2						
3						
4						
IF ANSWER IN QUESTION (40) OF CORE HPQ IS CODE "1" (YES), ASK SECTIONS B AND C						
B. SALARIES AND WAGES OF OVERSEAS FILIPINO WORKERS						
(11) During the past 6 months, did the OFW experience a reduction in salary/wage? <input type="checkbox"/> 1 Yes (Go to 12) 2 No (Go to 18)	(12)		(13)	(14)		
	What is the name of the OFW?		Is ___ male or female?	How many reductions in salary/wage did ___ experience in the past 6 months?		
	(REFER TO QUESTION 41 OF HPQ)		1 Male 2 Female			
	1					
	2					
3						
4						
Line No.	(15)		(16)		(17)	
	How much was ___'s gross monthly salary/wage before the reduction?		How much was ___'s gross monthly salary/wage after the reduction?		What was the reason for the reduction in salary/wage?	
	AMOUNT		AMOUNT			
	IN FOREIGN CURRENCY (UNIT)	IN PESO	IN FOREIGN CURRENCY (UNIT)	IN PESO	(SEE CODES BELOW)	
(6) Job	(7) Industry/sector	12- Public Administration and Defense; Compulsory Social Security		(10) Reason why OFW returned from abroad	(17) Reason for the reduction in salary/wage	
1- Officials of government and special interest organization, corporate executives, managers, managing proprietors and supervisors	1- Agriculture, Hunting, and Forestry	13- Education		1 - Retrenched/laid off from work	1 - The firm where the member works is cutting costs	
2- Professionals	2- Fishing	14- Health and Social Work		2 - Employment contract had expired	2 - The firm where the member works is incurring losses	
3- Technicians and associate professionals	3- Mining and Quarrying	15- Other Community, Social and Personal Service Activities		3 - Working visa had expired	3 - Reduced working hours	
4- Clerks	4- Manufacturing	16- Private Households with Employed Persons		4 - To reunite with family	4 - Poor performance on the job	
5- Service workers and shop and market sales workers	5- Electricity, Gas, and Water Supply	17- Extra-territorial Organizations and Bodies		5 - To have a vacation	5 - Moved to another job/position within the same company with lower wage/salary	
6- Farmers, forestry workers and fisherfolk	6- Construction			6 - To escape work-related hazards, abuses, and exploitation	6- Moved to another company with lower wage/salary	
7- Trades and related workers	7- Wholesale & Retail Trade; Repair of Motor Vehicles, Motorcycles, and Personal and Household Goods			7 - To avoid forced repatriation/deportation due to risky situations in wars and conflicts	7- Others, specify	
8- Plant and machine operators and assemblers	8- Hotel and Restaurants			8 - Others, specify		
9- Laborers and unskilled workers	9- Transport, Storage, and Communication					
10- Special occupations	10- Financial Intermediation					
	11- Real Estate, Renting, and Business Activities					

C. REMITTANCES FROM OVERSEAS FILIPINO WORKERS								
(18) Did the household receive remittances from OFWs during the past 6 months? 1 Yes (Go to 19) <input type="checkbox"/> 2 No (Go to 27)	During the past 6 months, how much remittance did you receive from OFWs?	(20)	(21)					
		MONTH	AMOUNT (IN PESOS)					
			21(A) IN CASH	21(B) IN KIND	21(C) TOTAL			
(19) During the past 6 months, what is the main mode of remittance used by the OFW? 1 Bank <input type="checkbox"/> 2 Agency/local office 3 Money transfer operators 4 Door-to-door remittance services 5 Hand carry sent thru friends/co-workers/relatives 6 Others, specify _____	a. Month 1 (M1)	April						
	b. Month 2 (M2)	March						
	c. Month 3 (M3)	February						
	(22) TOTAL M1+M2+M3					22		
	d. Month 4 (M4)	January						
	e. Month 5 (M5)	December						
	f. Month 6 (M6)	November						
(23) TOTAL M4+M5+M6					23			
ASK (24) IF (22) IS LESS THAN (23)		(25) During the past 6 months, did your household experience a decrease in the number of times you received remittances from OFWs compared to the period May-October 2008? 1-Yes (Go to 26) <input type="checkbox"/> 2- No (Go to 27)			ASK (26) IF ANSWER IN (25) IS CODE "1" (YES)			
(24) What is the primary reason for the decline in the amount of remittances received? (SEE CODES BELOW)					(26) What is the primary reason for the decrease in the number of times you receive remittances from abroad? (SEE CODES BELOW) <input type="checkbox"/>			
D. LOCAL EMPLOYMENT								
D1. ENTREPRENEURIAL ACTIVITIES								
NEW ACTIVITIES								
(27) During the past 6 months, did you or any member of your household engage in new business or entrepreneurial activity? 1 - Yes (Go to 28) <input type="checkbox"/> 2 - No (Go to 29)	(28) What type of industry is the business classified under?							
	INDUSTRY						(SEE CODES Q.7)	
EXISTING ACTIVITIES		IF YES IN (29)						
(29) During the past 6 months, was there any member of your household engaged in a business or entrepreneurial activity who experienced the following? 1 Yes 2 No	(30) What type of industry is the business classified under?	(31) What is the address of the business?	IF YES IN (29.2)			IF YES IN (29.3)		(34) What is the major reason why they experienced such event in the past 6 months? (SEE CODES BELOW: 29.1, 29.2 & 29.3)
			INDUSTRY	(SEE CODES Q.7)	Brgy/ City/ Mun/Prov	(32) How much is the estimated percentage change in the monthly income from this business or entrepreneurial activity? 1- Increase 2- Decrease	PERCENTAGE CHANGE (SEE CODES BELOW) 1 - <25% 2 - 25% - <50% 3 - 50% - <75% 4 - >75%	
(29.1) Closed his/her business or stopped engaging in an entrepreneurial activity								
(29.2) Experienced significant change in monthly income from the business								
(29.3) Experienced change in the number of employed persons								
(24)&(26) Reason for the decline in frequency & amount of remittances received 1 -Remittance fee is high 2 -OFW lost job overseas 3 -OFW experienced a reduction in salary/wage 4- OFW salary/wage was delayed 5-OFW increased living expenses abroad 6 -Others, specify		(29.1) Reason for closing the business 1 - Lack of demand for the firm's products/services 2 - No enough capital to continue the business 3 - Violation of laws/regulations 4- Others, specify		(29.2) Reason for the change in monthly income 1 - Decrease in the demand for its products/services 2 - Increase in the costs of production 3 - Damages caused by natural calamities 4- Increase in the demand for its products/services 5- Increase in production efficiency 6- Others, specify		(29.3) Reason for the change in the no. of employed persons 1 - The firm is cutting costs 2 - The firm is incurring losses 3 - The firm is experiencing a significant decline in the demand for its products/services 4 - The firm is experiencing a significant increase in the demand for its products/services 5- Others, specify		

D2. WAGE-EARNERS AND SALARIED WORKERS						
(35) During the past 6 months, was there any member of your household who lost a job in a company/business establishment? 1 Yes (Go to 36) <input type="checkbox"/> 2 No (Go to 42) <input type="checkbox"/>	Line No.	(36)	(37)	(38)		
		What is the name of the household member who lost job?	What was _____'s job or occupation?	In what industry did _____ work? (refer to Question 37)		
		NAME	JOB/OCCUPATION	<small>(SEE CODES Q.6)</small>	INDUSTRY	<small>(SEE CODES Q.7)</small>
Line No.		(39)	(40)	(41)		
		What is the address of the company where _____ used to work?	What was the major reason for the job loss?	How did _____ lose his/her job?		
		<small>(Barangay/City/Municipality/Province)</small>	<small>(SEE CODES BELOW)</small>	<small>(SEE CODES BELOW)</small>		
(42) During the past 6 months, was there any employed member in your household who experienced a reduction in salary/wage? 1 Yes (Go to 43) <input type="checkbox"/> 2 No (Go to 44) <input type="checkbox"/>	Line No.	IF YES IN (42)				
		(43)	(44)	(45)	(46)	(47)
		What is the name of the employed member?	How many times did _____ experience a reduction in salary/wage during the past 6 months?	How much was _____'s monthly salary before the reduction in salary/wage?	How much was _____'s monthly salary after the reduction in salary/wage?	What was the primary reason for the reduction in salary/wage?
		<small>(REFER TO Q.98 OF CORE HPQ)</small>	NUMBER	(IN PESOS)	(IN PESOS)	<small>(SEE CODES BELOW)</small>
(48) During the past 6 months, was there any employed member in your household who experienced reduced working hours? 1 Yes (Go to 49) <input type="checkbox"/> 2 No (Go to 53) <input type="checkbox"/>	Line No.	IF YES IN (42)				
		(49)	(50)	(51)	(52)	
		What is the name of the employed member?	How many hours per week was _____ working before the cut in working hours?	How many hours per week is _____ working after the cut in working hours?	What was the primary reason for the reduction in working hours?	
		<small>(REFER TO Q.98 OF CORE HPQ)</small>	(HOURS/WEEK)	(HOURS/WEEK)	<small>(SEE CODES BELOW)</small>	
(53) During the past 6 months, was there any employed member in your household who experienced removal or reduction of employment benefits? 1 Yes (Go to 54) <input type="checkbox"/> 2 No (Go to 57) <input type="checkbox"/>	Line No.	IF YES IN (53)				
		(54)	(55)	(56)		
		What is the name of the employed member?	Which benefits were removed or reduced?	What was the primary reason for the removal/reduction of benefits?		
		<small>(REFER TO Q.98 OF CORE HPQ)</small>	<small>(SEE CODES BELOW)</small>	<small>(SEE CODES BELOW)</small>		
(40) Reason for job loss 1- The firm went bankrupt and closed 2- The firm is incurring losses 3- The firm is downsizing and reducing costs 4 - Corporate restructuring 5-Poor performance on the job 6- Violated company rules/by-laws 7- Others, specify	(41) Job loss 1- Fired or permanently retrenched/laid-off 2- Temporarily retrenched or laid-off 3- Voluntary resignation 4- Voluntary retirement 5- Forced retirement 6- Contract ended 7- Got injured/ill 8- Others, specify	(47) Reason for the reduction in salary/wage 1 - The firm where the member works is cutting costs 2 - The firm where the member works is incurring losses 3 - Reduced working hours 4 - Poor performance on the job 5 - Moved to another job/position within the same company with lower salary/wage 6- Transferred to another company with a lower salary/wage 7- Others, specify	(52) Reason for the reduction in working hours 1 - The firm where the member works is cutting costs 2 - The firm where the member works is incurring losses 3 - Poor performance on the job 4- Moved to another job/position within the same company with less working hours required 5- Transferred to another company with a lower salary/wage 6- Others, specify	(55) Removed/ reduced benefits 1- Transportation allowance 2- Food/meal allowance 3- Housing allowance 4- Paid leaves 5- Paid holidays 6- Health insurance/free medical care 7 - Educational assistance 8- Cost-of-living allowance (COLA) 9- Others, specify	(56) Reason for the reduction in employment benefits 1 - The firm where the member works is cost cutting 2 - The firm where the member works is incurring losses 3- Poor performance on the job 4 - Moved to another job/position within the same company with lower salary/wage 5- Transferred to another company with a lower salary/wage 6- Others, specify	

E. COPING STRATEGIES								
E1. FOOD								
<p>(57) During the past 6 months, did the household's expenses for food _____?</p> <div style="text-align: right; margin-top: 10px;"> <input style="width: 40px; height: 20px;" type="text"/> </div> <p>1- Increase 2- Remain the same 3- Decrease</p>	<p>(58) How did the household try to reduce food expenses?</p> <div style="margin-top: 5px;"> <p>1- Reduced number of meals in a day/combined meals <input style="width: 15px;" type="checkbox"/></p> <p>2- Skipped eating for at least for a day <input style="width: 15px;" type="checkbox"/></p> <p>3- Reduced portion sizes of meals <input style="width: 15px;" type="checkbox"/></p> <p>4- Reduced adult/parent food share <input style="width: 15px;" type="checkbox"/></p> <p>5- Bought food in retail and smaller portions/packages <input style="width: 15px;" type="checkbox"/></p> <p>6- Consumed staple food only <input style="width: 15px;" type="checkbox"/></p> <p>7- Reduced quantity of relatively expensive food items (e.g., meat) <input style="width: 15px;" type="checkbox"/></p> <p>8- Consumed own harvest <input style="width: 15px;" type="checkbox"/></p> <p>9- Shifted to cheaper food items <input style="width: 15px;" type="checkbox"/></p> <p>10- Purchased food from government-run stores <input style="width: 15px;" type="checkbox"/></p> <p>11- Lessened the frequency of dining-out <input style="width: 15px;" type="checkbox"/></p> <p>12- Consumed same food/dish for several days in a row <input style="width: 15px;" type="checkbox"/></p> <p>13- Recooked, or reheat leftovers <input style="width: 15px;" type="checkbox"/></p> <p>14- Others, specify _____ <input style="width: 15px;" type="checkbox"/></p> </div>	<p>1- Yes 2- No</p> <div style="margin-top: 5px;"> <p>IF CODE "1" IN ANY OF THE ITEMS IN (58)</p> <p>(59) What is the primary reason for trying to reduce household's expenses for food?</p> <p style="text-align: center;">(SEE CODES BELOW)</p> <div style="text-align: right; margin-top: 10px;"> <input style="width: 40px; height: 20px;" type="text"/> </div> </div>						
E2. CLOTHING								
<p>(60) During the past 6 months, did the household's expenses for clothing _____?</p> <div style="text-align: right; margin-top: 10px;"> <input style="width: 40px; height: 20px;" type="text"/> </div> <p>1- Increase 2- Remain the same 3- Decrease</p>	<p>(61) How did the household try to reduce expenses on clothing?</p> <div style="margin-top: 5px;"> <p>1- Shifted to cheaper brands of clothing <input style="width: 15px;" type="checkbox"/></p> <p>2- Shifted to ukay-ukay stores <input style="width: 15px;" type="checkbox"/></p> <p>3- Lessened frequency of buying of clothes <input style="width: 15px;" type="checkbox"/></p> <p>4- Purchased clothes during sales (discount periods) <input style="width: 15px;" type="checkbox"/></p> <p>5- Did not buy clothes <input style="width: 15px;" type="checkbox"/></p> <p>6- Repaired old clothes <input style="width: 15px;" type="checkbox"/></p> <p>7- Made own clothes <input style="width: 15px;" type="checkbox"/></p> <p>8- Others, specify _____ <input style="width: 15px;" type="checkbox"/></p> </div>	<p>1- Yes 2- No</p> <div style="margin-top: 5px;"> <p>IF CODE "1" IN ANY OF THE ITEMS IN (61)</p> <p>(62) What is the primary reason for trying to reduce household's expenses for clothing?</p> <p style="text-align: center;">(SEE CODES BELOW)</p> <div style="text-align: right; margin-top: 10px;"> <input style="width: 40px; height: 20px;" type="text"/> </div> </div>						
E3. UTILITIES: FUEL, ELECTRICITY, AND WATER								
E3.1. COOKING FUEL								
<p>(63) During the past 6 months, did the household's expenses for cooking fuel _____?</p> <div style="text-align: right; margin-top: 10px;"> <input style="width: 40px; height: 20px;" type="text"/> </div> <p>1- Increase 2- Remain the same 3- Decrease</p>	<p>(64) How did the household try to reduce expenses on cooking fuel?</p> <div style="margin-top: 5px;"> <p>1- Reduced number of times cooking food <input style="width: 15px;" type="checkbox"/></p> <p>2- Reduced number of times heating water <input style="width: 15px;" type="checkbox"/></p> <p>3- Bought already cooked food from outside (lutong ulam/pagkain) <input style="width: 15px;" type="checkbox"/></p> <p>4- Shifted to alternative cooking fuel, specify _____ <input style="width: 15px;" type="checkbox"/></p> </div> <p>IF YES</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th colspan="2" style="text-align: center;">TYPE OF COOKING FUEL</th> </tr> </thead> <tbody> <tr> <td style="width: 50%; text-align: center;">BEFORE REDUCTION</td> <td style="width: 50%;"></td> </tr> <tr> <td style="text-align: center;">AFTER REDUCTION</td> <td></td> </tr> </tbody> </table> <p style="margin-top: 5px;"> CODES 2 - Firewood 4 - Standard LPG 6 - Electricity 1 - Kerosene 3 - Charcoal 5 - Smaller LPG 7 - Others, specify _____ </p> <p>5- Others, specify _____ <input style="width: 15px;" type="checkbox"/></p>	TYPE OF COOKING FUEL		BEFORE REDUCTION		AFTER REDUCTION		<p>1- Yes 2- No</p> <div style="margin-top: 5px;"> <p>IF CODE "1" IN ANY OF THE ITEMS IN (64)</p> <p>(65) What is the primary reason for trying to reduce household's expenses for cooking fuel?</p> <p style="text-align: center;">(SEE CODES BELOW)</p> <div style="text-align: right; margin-top: 10px;"> <input style="width: 40px; height: 20px;" type="text"/> </div> </div>
TYPE OF COOKING FUEL								
BEFORE REDUCTION								
AFTER REDUCTION								
IF YES IN (80) OF THE CORE HPQ								
E3.2. ELECTRICITY								
<p>(66) During the past 6 months, did the household's expenses for electricity _____?</p> <div style="text-align: right; margin-top: 10px;"> <input style="width: 40px; height: 20px;" type="text"/> </div> <p>1- Increase 2- Remain the same 3- Decrease</p>	<p>(67) How did the household try to reduce expenses on electricity?</p> <div style="margin-top: 5px;"> <p>1- Unplugged household appliances when not in use <input style="width: 15px;" type="checkbox"/></p> <p>2- Turned off lights when not needed <input style="width: 15px;" type="checkbox"/></p> <p>3- Replaced high-wattage bulbs with low-wattage lamps <input style="width: 15px;" type="checkbox"/></p> <p>4- Lessened use of household appliances <input style="width: 15px;" type="checkbox"/></p> <p>5- Disconnected electricity voluntarily <input style="width: 15px;" type="checkbox"/></p> <p>6- Others, specify _____ <input style="width: 15px;" type="checkbox"/></p> </div>	<p>1- Yes 2- No</p> <div style="margin-top: 5px;"> <p>IF CODE "1" IN ANY OF THE ITEMS IN (67)</p> <p>(68) What is the primary reason for trying to reduce household's expenses on electricity?</p> <p style="text-align: center;">(SEE CODES BELOW)</p> <div style="text-align: right; margin-top: 10px;"> <input style="width: 40px; height: 20px;" type="text"/> </div> </div>						
<p>(59) (62) (65) (68)</p> <p>Reason behind the cut in expenses</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">1- Decline in household budget</td> <td style="width: 33%;">3- To save money</td> <td style="width: 33%;">5- Others, specify</td> </tr> <tr> <td>2- Spend money on other expenses</td> <td>4- Increase in prices/ rates</td> <td></td> </tr> </table>			1- Decline in household budget	3- To save money	5- Others, specify	2- Spend money on other expenses	4- Increase in prices/ rates	
1- Decline in household budget	3- To save money	5- Others, specify						
2- Spend money on other expenses	4- Increase in prices/ rates							

E3.3. WATER

(69) During the past 6 months, did the household's expenses for water _____?

1- Increase

2- Remain the same

3- Decrease

4- Not applicable

(70) How did the household try to reduce expenses on water?

1- Yes

2- No

1- Used less water from faucet and more from other sources (e.g., deep well)

2- Lessened the frequency of washing dirty clothes

3- Used glass when toothbrushing, tabo when taking a bath, drum to store water

4- Shortened time for activities using water

5- Used water from washing dishes to water plants

6- Used rainwater

7- Lessened frequency of bathing/Skipped taking shower

8- Others, specify _____

E3.3. IF CODE "1" IN ANY OF THE ITEMS IN (70)

(71) What is the primary reason for trying to reduce household's expenses for water?

(SEE CODES BELOW)

E4. EDUCATION

(72) During the past 6 months, did the household's expenses for education _____?

1- Increase

2- Remain the same

3- Decrease

4- Not applicable

(73) How did the household try to reduce education expenses?

1- Yes

2- No

1- Transferred children enrolled from private school to public school during the past 6 months

IF YES, WHO?

NAME _____

NAME _____

NAME _____

2- Withdrew children from school during the past 6 months

IF YES, WHO?

NAME _____

NAME _____

NAME _____

3- Transferred children from daycare to homecare

4- Members who are studying skipped classes

5- Reduced allowance (baon) for members who are studying

6- Members who are studying used second-hand books

7- Members who are studying used second-hand uniform/shoes

8- Shifted from private vehicle/school bus to commuting

9- Others, specify _____

(74) What is the primary reason for trying to reduce household's expenses on education?

(SEE CODES BELOW)

(73.1) Are there any household member enrolled in private school last school year who transferred to public school this school year?

1- Yes **2- No**

IF YES, WHO?

NAME _____

NAME _____

NAME _____

(73.2) Are there any household member who were withdrawn from school this school year?

1- Yes **2- No**

IF YES, WHO?

NAME _____

NAME _____

NAME _____

IF CODE "1" IN ANY OF THE ITEMS IN (73)

(74) What is the primary reason for trying to reduce household's expenses on education?

(SEE CODES BELOW)

E5. HEALTH

(75) During the past 6 months, did the household's health-related/medical expenses _____?

1- Increase

2- Remain the same

3- Decrease

4- Not applicable

(76) How did the household try to reduce medical expenses?

1- Yes

2- No

1- Did not buy medicine

2- Discontinued intake of prescribed medicine (e.g. antibiotics)

3- Shifted to government health centers and hospitals

4- Shifted to alternative medicine (albularyo, faith healer, etc.)

5- Resorted to self-medication

6- Reduced prescribed drug intake (e.g. cutting a tablet into half)

7- Lessened the availment of medical treatment for any illness

8- Did not seek medical treatment for any illness

9- Used medicinal plants/herbal medicines

10- Shifted to generic drugs/cheaper drug brands

11- Others, specify _____

IF CODE "1" IN ANY OF THE ITEMS IN (76)

(77) What is the primary reason for trying to reduce household's expenses on health?

(SEE CODES BELOW)

(71) (74) (77)

Reason behind the cut in expenses

1- Decline in household budget 3- To save money 5- Others, specify

2- Spend money on other expenses 4- Increase in prices/ rates

E6. COMMUNICATION

(78) During the past 6 months, did the household communication expenses _____?

1- Increase
2- Remain the same
3- Decrease
4- Not applicable

(79) How did the household try to reduce communication expenses?

1- Yes 2- No

1- Subscribed to promotional text and call services (e.g., unlibt, unlicall)
2- Lessened the frequency of texting and calling
3- Did not buy load/stopped buying load
4- Shifted from postpaid to prepaid
5- Voluntarily disconnected landline
6- Reduced number of phonelines
7- Shifted to cheaper mobile phones
8- Lessened the frequency of web surfing
9- Others, specify _____

IF CODE "1" IN ANY OF THE ITEMS IN (79)

(80) What is the primary reason for trying to reduce household expenses for communication? (SEE CODES BELOW)

E7. TRANSPORTATION

(81) During the past 6 months, did the household transportation expenses _____?

1- Increase
2- Remain the same
3- Decrease
4- Not applicable

(82) How did the household try to reduce transportation expenses?

1- Yes 2- No

1- Shifted to cheaper mode of transportation, specify _____

IF YES

TYPE OF TRANSPORTATION	
BEFORE REDUCTION	AFTER REDUCTION
CODES	3 - Bus 6 - Pedicab 9 - Taxi
1 - Bicycle 4 - Tricycle 7 - Walking 10 - Private car/van	
2 - Jeepney 5 - Motorcycle 8 - LRT/MRT/PNR 11 - Others, specify _____	

2- Lessened fuel (i.e., diesel, gasoline) consumption
3- Shifted to cheaper type of fuel (e.g., from premium to unleaded)
4- Others, specify _____

IF CODE "1" IN ANY OF THE ITEMS IN (82)

(83) What is the primary reason for trying to reduce household's expenses for transportation? (SEE CODES BELOW)

E8. RECREATION

(84) During the past 6 months, did the household's recreation expenses _____?

1- Increase
2- Remain the same
3- Decrease
4- Not applicable

(85) How did the household try to reduce recreation expenses?

1- Yes 2- No

1- Postponed/did not take vacation
2- Shifted to cheaper recreational activities, specify _____

3- Voluntarily disconnected cable subscription
4- Lessened the frequency of engagement in recreational activities
5- Others, specify _____

IF CODE "1" IN ANY OF THE ITEMS IN (85)

(86) What is the primary reason for trying to reduce household expenses for recreation? (SEE CODES BELOW)

E9. ALCOHOLIC BEVERAGES, TOBACCO AND GAMBLING

(87) During the past 6 months, did you or any other member of your household _____?

1- Yes 2- No

(87.1) Consume alcoholic beverages? IF YES ASK (88)
(87.2) Smoke cigarettes/tobacco? IF YES ASK (90)
(87.3) Engage in gambling (ending, tong-its, lotto etc.)? IF YES ASK (92)

E9.1. ALCOHOLIC BEVERAGES

(88) During the past 6 months, did the household's level of consumption for alcoholic beverages in terms of quantity _____?

1- Increase
2- Remain the same
3- Decrease (Go to 89)

(89) What is the primary reason for trying to reduce the quantity of alcoholic beverages consumed by the household? (SEE CODES BELOW)

E9.2. TOBACCO

(90) During the past 6 months, did the household's level of consumption for cigarettes/tobacco in terms of quantity _____?

1- Increase
2- Remain the same
3- Decrease (Go to 91)

(91) What is the primary reason for trying to reduce the quantity of cigarettes/tobacco consumed by the household? (SEE CODES BELOW)

E9.3. GAMBLING AND BETTING GAMES

(92) During the past 6 months, did the household's frequency of engagement in gambling _____?

1- Increase
2- Remain the same
3- Decrease (Go to 93)

(93) What is the primary reason for trying to reduce the frequency of engagement in gambling activities? (SEE CODES BELOW)

E10. SAVINGS

(94) During the past 6 months, were you or any member of your household able to save money?

1- Yes 2- No

(95) During the past 6 months, did the household make use of its savings?

1- Yes 2- No

E11. SALE OF ASSETS

(96) During the past 6 months, did you or any member of your household sell properties or assets?

1- Yes (Go to 97) 2- No (Go to 98)

(97) What kinds of assets were sold? Check all that are applicable

<input type="checkbox"/> 1- House	<input type="checkbox"/> 6- Tractor	<input type="checkbox"/> 11- Jewelry
<input type="checkbox"/> 2- Residential lot	<input type="checkbox"/> 7- Fishing boat	<input type="checkbox"/> 12- Cellphone
<input type="checkbox"/> 3- Agricultural land	<input type="checkbox"/> 8- Car/van	<input type="checkbox"/> 13- Household appliance
<input type="checkbox"/> 4- Commercial land	<input type="checkbox"/> 9- Jeep/jeepney	<input type="checkbox"/> 14- Others, specify _____
<input type="checkbox"/> 5- Farm animal	<input type="checkbox"/> 10- Motorcycle/tricycle	

E12. PAWNING OF ASSETS

(98) During the past 6 months, did you or any member of your household pawn properties or assets?

1- Yes (Go to 99) 2- No (Go to 100)

(80) (83) (86) (89) (91) (93)

Reason behind the cut in expenses

1- Decline in household budget
2- Spend money on other expenses
3- To save money
4- Increase in prices/ rates
5- Others, specify _____

(99) What kinds of assets were pawned?
Check all that are applicable

<input type="checkbox"/> 1- House	<input type="checkbox"/> 6- Tractor	<input type="checkbox"/> 11- Jewelry
<input type="checkbox"/> 2- Residential lot	<input type="checkbox"/> 7- Fishing boat	<input type="checkbox"/> 12- Cellphone
<input type="checkbox"/> 3- Agricultural land	<input type="checkbox"/> 8- Car/van	<input type="checkbox"/> 13- Household appliance
<input type="checkbox"/> 4- Commercial land	<input type="checkbox"/> 9- Jeep/jeepney	<input type="checkbox"/> 14- Others, specify _____
<input type="checkbox"/> 5- Farm animal	<input type="checkbox"/> 10- Motorcycle/tricycle	

E13. CREDIT

(100) During the past 6 months, did you or any member of your household try to borrow money? 1- Yes (Go to 101) 2- No (Go to 103)

(101) During the past 6 months, did you or any member of your household able to borrow money? 1- Yes (Go to 102) 2- No (Go to 103)

(102) During the past 6 months, where did you or any member of your household borrow money?
Check all that are applicable

<input type="checkbox"/> 1- Private bank	<input type="checkbox"/> 6- Cooperative
<input type="checkbox"/> 2- Government bank	<input type="checkbox"/> 7- Loan shark (5-6)
<input type="checkbox"/> 3- Friend	<input type="checkbox"/> 8- NGO
<input type="checkbox"/> 4- Neighbor	<input type="checkbox"/> 9- GSIS/SSS, etc.
<input type="checkbox"/> 5- Relative	<input type="checkbox"/> 10- Others, specify _____

IF CODE "1" IN (95), (96), (98), OR (101)

(103) What is the primary reason for:
SEE CODES BELOW

(103.1) Making use of your savings?	<input type="checkbox"/>
(103.2) Selling assets?	<input type="checkbox"/>
(103.3) Pawning assets?	<input type="checkbox"/>
(103.4) Borrowing money?	<input type="checkbox"/>

(103) Reason for tapping various fund sources

1- To meet daily expenses	4- To pay loan
2- To pay for school fees and related expenses	5- To expand business/production
3- To pay for health service including medicine	6- Others, specify _____

(104) During the past 6 months, did you or any member of your household default on (not able to pay) debt/s? 1- Yes (Go to 105) 2- No (Go to 106)

(105) What is the primary reason for the non-payment of debt?

1- No money to pay
2- Reallocated money to other expenses
3- Unwillingness to pay
4- Inaccessibility of place of payment
5- High interest
6- Others, specify _____

E14. EMPLOYMENT

(106) During the past 6 months, are there employed household members who had sought additional work besides their primary occupation? 1- Yes 2- No

(107) During the past 6 months, did you or any other household member perform any other work/engage in any livelihood activity besides main occupation? 1- Yes 2- No

(108) Are there household members not previously working who got employed during the past 6 months? 1- Yes 2- No

IF YES, WHO?

NAME

(109) During the past 6 months, are there household members who had sought employment in another country? 1- Yes 2- No

IF YES
In what country? Specify _____

IF CODE "1" IN (106), (107), (108), OR (109)

(110) What is the primary reason for:
SEE CODES BELOW

(110.1) seeking additional employment?	<input type="checkbox"/>
(110.2) doing additional work?	<input type="checkbox"/>
(110.3) adding new household income-earners?	<input type="checkbox"/>
(110.4) seeking work in another country?	<input type="checkbox"/>

(110) Reason behind employment-related coping strategies

1- To meet daily household expenses	4- To advance career
2- To earn money for future needs	5- To gain work experience
3- To expand social network	6- Others, specify _____

E15. RELIGIOSITY

(111) On the average, the number of times you prayed during the past 6 months _____ compared to the period May-October 2008. 1- Increased 2- Remained the same 3- Decreased 4- Not applicable (Go to 114)

(112) What is the primary reason why you pray?

1- This has become customary as part of our religion
2- To thank God
3- To ask for forgiveness of sins
4- To understand the will of God
5- There are certain needs in life that could be realized if prayed for
6- To ask help from God if truly helpless or desperate
7- To ask for daily needs
8- Others, specify _____

(113) On the average, the number of times you went to your place of worship during the past 6 months _____ compared to the period May-October 2008. 1- Increased 2- Remained the same 3- Decreased 4- Not applicable

E16. EFFECT OF GLOBAL CRISIS

(114) How would you rate the effect of the global crisis on your household during the past 6 months? 1- Not affected 2- Mildly affected 3- Moderately affected 4- Severely affected 5- Don't know

E17. SELF-RATING OF CHANGE IN WELL-BEING

(115) Comparing your quality of life these days to how it was 6 months ago, would you say that it is _____. 1- Better now 2- Same as before 3- Worse now

F. ACCESS TO PROGRAMS									
TYPE OF PROGRAM	(116)								
	Are you aware of the following programs in the barangay? 1-Yes 2-No	IF YES IN (116)		IF YES IN (117)		(120) What was the major reason for accessing the services under the program in the past 6 months? (SPECIFY)	(121) How many times did you or any member of your household avail of the services provided under the program in the past 6 months?	(122) How did this program affect your household? (SPECIFY)	(123) How do you classify the effect of this program in your household? 1-Positive Effect 2- No Effect 3- Negative Effect
		(117) Did you or any member of your household receive or avail of any of the following programs in the past 6 months? 1-Yes 2- No	(118) What specific services under the program did you avail during the past 6 months?	(119) Who implemented this program? (SEE CODES BELOW)					
SPECIFIC PROGRAMS									
1. Philhealth-Sponsored Programs									
2. Pantawid Pamilyang Pilipino Program (4Ps)									
3. NFA Rice Access Program (i.e., access to subsidized rice)									
4. Comprehensive Livelihood & Emergency Employment Programs-CLEEP (DSWD)									
5. Self-Employment Assistance-Kaunlaran (SEA-K)									
6. SSS Emergency loan for workers who lost their job since January 2009									
7. PAGIBIG Special Short-Term Loan (STL) Program for Displaced Workers									
8. Subsidies for electronics workers									
9. Botika ng Barangay Program									
10. Day Care center services									
11. Health services through the Barangay Health									
OTHER PROGRAMS (Write down the full name of the program under Column (116) if answer in (116) is code "1" (YES))									
1. Skills or livelihood training program									
2. Credit program									
3. Educational assistance (e.g., through cash grants)									
4. Other types of program (specify)									

(119) Program Implementor 1-National 2-Province 3- City/Municipality 4-Barangay 5-Private organizations/NGOs 6- Don't know
CBMS Form 5

Kenya LPMS Form I

Questionnaire: Local Poverty Monitoring System (LPMS) – Tana River/Delta Districts

IDENTIFICATION	
DIVISION _____	
LOCATION _____	
SUB-LOCATION _____	
VILLAGE _____	
INTERVIEWER'S NAME: _____	
HOUSEHOLD NUMBER _____	
DATE OF INTERVIEW: _____	
LANGUAGE	
LANGUAGE OF QUESTIONNAIRE: ENGLISH	

IDENTIFICATION			
LANGUAGE OF INTERVIEW *** _____			
SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		

INTRODUCTION AND CONSENT

Good morning/afternoon. My name is _____. I am from the African Institute for Health and Development. We are conducting a welfare household census, and we are interviewing all people who have been affected by poverty directly or indirectly. I would like to ask you some questions. All the information provided will be kept strictly confidential and will only be used for the purpose of this study. Your participation will be highly appreciated. You are free to stop the interview at any time.

Do you have any questions? 1) Yes..... 2) No.....

May I begin the interview now? 1) Yes..... 2) No.....

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED..... RESPONDENT DOES NOT AGREE TO BE INTERVIEWED2 — END

HOUSEHOLD HEAD CHARACTERISTICS

1.Ethnic group of household head		
2. Marital status	1) Single 2) Married 3) Divorced 4) Widow/widower 5) Separated 6)Cohabiting (come-we-stay)	
3. Main occupation	1) Employed(salary) 2) Casual worker (kibarua) 3)Unemployed 4) Self-employed	

EDUCATION

4.	10a.	10b.	10c.	10d.	10e.	10f.	10g
	Status in family	Gender 1) Male 2) Female	Age	Literate 1) Yes 2) No	Attending school 1) Yes 2) No	Working 1) Yes 2) No	Highest education 1) No education 2) Pre-primary 3) Not finished primary 4) Finished primary 5) Finished secondary 6) Not finished secondary 7) Finished college 8) Finished university
1	Head						
2	Spouse						

3	Spouse						
4	Spouse						
5	Spouse						
6	Child						
7	Child						
8	Child						
9	Child						
10	Child						
11	Child						
12	Child						
13	Child						
14	Child						
15	Child						
16	Child						
17	Child						
18	Child						
19	Child						

5. During the last 6 months, how many household members dropped out of school?	1)One 2)Two 3)Three 4)More than Three 5)None	If None skip to 8
6. Is the household member who dropped out of school male or female?	1) Male 2) Female	
7. What is the main reason for dropping out of school?	_____	
8. How many students in your household shifted from private to public schools?	1)One 2)Two 3)Three 4)More than Three 5)None	If None skip to 10
9. What is the main reason for shifting to public schools?	_____	
10. How much do you pay for their tuition fees (monthly) and other school expenses?	1)Less than Kshs.1000 2)Kshs 1000- 2000 3)Kshs. 2000 – 3000 5)Over Kshs. 3000	
11. Was there any decrease in your monthly educational expenses during the last 6 months?	1)Yes 2)No	

EMPLOYMENT

12. How many household members 15 years old and below have been	1)One	If None skip
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working in the last six months (for income)?	2) Two 3) Three 4) More than three 5) None	to 16
13. When did they start working?	1) Less than a month ago 2) Two months ago 3) Three months ago 4) Six months ago 5) More than six months ago	
14. Did they drop out of school to work?	1) Yes 2) No	
15. What is the main reason for their working?	_____	
16. How many household members 60 years old and above have been working for the last six months (for income)?	1) One 2) Two 3) Three 4) More than Three 5) None	If None skip to 20
17. When did they start working?	1) Less than a month ago 2) Two months ago 3) Three months ago 4) Six months ago 5) More than six months ago	
18. Were they previously working?	1) Yes 2) No	
19. What is the main reason for their working?	_____	

20. During the past 6 months, are there household members who had sought or currently seeking additional work besides their primary occupation?	1) Yes 2) No	If No skip to 22
21. What is the reason for seeking additional employment?	_____	
22. During the last 6 months, are there household members who lost jobs?	1) Yes 2) No	If No skip to 24
23. What is the reason for the job loss?	_____	
24. During the last 6 months, is there any employed persons in your household who experienced wage cut?	1) Yes 2) No	
25. During the last 6 months, is there any member of your household who experienced reduced working hours?	1) Yes 2) No	

FOOD AND NUTRITION

26. Have there been changes in how the household eats, prepares, or purchases food during the past 6 months?	1)Yes 2)No	If No skip to 28
27. What are these changes?	_____ _____	
28. How much is your average monthly food expenditures?	1)Kshs. 1-2,000 2) Kshs. 2,000-4,000 3)Kshs. 4,000-5,000 4)Over Kshs. 5,000	
29. Was there a decrease in your average monthly food expenditures	1)Yes	If No skip to 31

during the past 6 month?	2)No	
30. What is the reason for the decrease in your average monthly food expenditures?	_____ _____	
31. In the last 3 months, did it happen even once that your household experienced hunger?	1) Yes 2) No	If No skip to 33
32. How many days did your household experience hunger during the past 3 months?	Names of the month a. First Month _____ b. Second month _____ c. Third month _____	

In Q 33, interviewer to elaborate the meaning of a balanced meal to the respondent - a meal that has proteins, carbohydrates and vitamins (from vegetables and fruits)

33. Did your household have at least three balanced meals a day in the last one month?	1)Yes 2)No 98)I don't know	
34 If the household has a child below five years, is the child suffering from disease of malnutrition such as Kwashiorkor or Marasmus?	1)Yes 2)No 98)Don't know 97)Not Applicable	
35. If the household has a child below five years, is the child underweight? (as assessed by the interviewer or respondent?)Or by using clinic card.	1)Yes 2)No 3)Don't know 97)Not Applicable	
36. Have you sold a household asset to buy food in the last one month?	1) Yes 2) No	If no skip to No38
37. If yes, what did you sell?	1) Land 2) Livestock 3) Farm implement 96) Other, specify_____	
38. How close is your nearest food market for commercially produced foods?	1)1km 2)2-5Km 3)>5km	
39. Where do you buy cereals (maize, rice, wheat, etc) from for your household?	1) Do not buy 2) Local Informal market 3) Local formal market 4) Informal market outside the area 5) Formal market outside the area	

	96) Other specify _____	
40. How close is your nearest food market for locally produced foods?	1) 1km 2) 2-5km 3) 5km	
41. Who usually goes to buy food?	1) self 2) spouse 3) children 96) Other, specify _____	
42. What is the cost of maize in the market you use per 1Kg?	_____	
43. What is the cost of oil/cooking fat per 250ml/g?	_____	
44. Do you produce food for household consumption?	1) Yes 2) No	

HEALTH

45. If couple in the household is currently married, are they using contraceptive measures?	1) Yes 2) No	If No skip to 47
46. If yes, what type:	1) IUD 2) Injection 3) Condom 4) Pill 5) Implant 6) Natural methods	

47. Was there any child death during the past three years?	1) Yes 2) No	
48. Is there any child in the household younger than five years old?	1) Yes 2) No	
49. If household has child, did the mother receive routine prenatal treatment (minimum 4 times)	1) Yes 2) No	
50. Did the mother receive postnatal treatment up to 40 days after the birth?	1) Yes 2) No	
51. Who assisted the last child delivery?	1) Doctor 2) Hospital midwife 3) Traditional Birth Attendant 96) Others, specify _____	
52. Types of immunization received by the youngest child: Interviewer: ask to see the clinic card Card seen: Yes No	a) BCG 1) Yes 2) No b) DPT 1) Yes 2) No c) Polio 1) Yes 2) No d) Measles 1) Yes 2) No e) Hepatitis B 1) Yes 2) No	
53. Has any female member of this household died due to pregnancy related complications?	1) Yes 2) No	
54. Has any household member been sick in the last two weeks (prior to the study)?	1) Yes 2) No	
55. Did the sick household seek for medical assistance?	1) Yes 2) No	
56. If no to Q55, why did the household member fail to seek medical assistance?	_____	

57. Has any household member suffered from malaria in the last two weeks (prior to the study)?	1) Yes 2) No	
58. Where did an ill household member go for treatment during the last 6 months?	a) Hospital 1) Yes 2)No b) Public health centre 1) Yes 2) No c) Private clinic 1) Yes 2) No d) Nurse/midwife 1) Yes 2) No e) Over the counter medicine 1) Yes 2) No f) Alternative healer 1) Yes 2) No g) Others, specify 1) Yes 2) No	
59. What was the main source of funds to go to formal health facilities e.g. hospital.	1)Out-of-pocket 2) Borrow 3)Health insurance 96) Other, specify _____	
60. Has any household member suffered from diarrhea in the last two weeks (prior to the study)?	1) Yes 2) No	
61. How much do you spend on medical expenses on average per month?	1)Kshs. 1-2,000 2) Kshs. 2,000-4,000 3)Kshs. 4,000-5,000 4)Over Kshs. 5,000	
62. Was there a decrease in your medical expenses during the last 6 months?	1)Yes 2)No	
63. What is the main reason for the decrease in your medical expenses?	_____	

HOUSEHOLD MEMBERS WITH DISABILITIES

64. Does the household have any member with a physical/mental disability?	1)Yes 2)No	If No skip to 70
65. What is the name of the member who has a disability		
66. What type of disability does have?	1.Total blindness _____ 2.partial blindness _____ 3.Totally deaf _____ 4.partial deaf _____ 5. Crippled(kilema) _____ 6.Mental disability _____ 7.Dump(bubu) _____ 96.Other(specify)_____	
67. What is the cause of the disability?		
68. What assistance did the household with disability received?	_____	
69. From whom did she/he receive this assistance?	1) Government 2))NGO 96)Other, specify _____	

WATER AND SANITATION

70. What is your household's main source of drinking water?	1)Tap water 2) Unprotected wells 3) Protected wells 4) Bottled water 5) Rivers/springs 96) Other, specify_____	
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71. For households with no tap water, what is the average distance to the water source?	1) Less than 1 km 2) 1-3kms 3) 4-6kms 4) 7-9kms 5) 10kms and above	
72. What kind of toilet/bathroom facility does your household use?	1) Own 2) Public 3) River 4) Bush 96) Other, specify _____	

SOURCES OF INCOME PART A

ENTREPRENEURIAL ACTIVITIES		NET INCOME	
73. During the past 12 months, did you or any member of your household engage in any of the following entrepreneurial activities to earn income or profit?	Codes: 1. Yes 2. No	What was the total net value of income from these activities in the past 12 months in Kshs?	
74. Crop farming such as growing of water melons, bananas, mangoes, cowpeas, rice, etc		a) In cash	b) In kind
75. Livestock and poultry raising such as cattle, camels, sheep, goats, donkeys, chicken, etc			
76. Fishing activities such fish farming, fish drying, etc			
77. Forestry and hunting activities such as tree planting, firewood gathering, charcoal burning or hunting of wild animals and birds, etc.			
78. Wholesale and retail trade e.g. market vending, hawking, etc.			
79. Manufacturing activities such as mat weaving, tailoring, dress making, etc.			
80. Community, social and personal services such as medical and dental practice, operation of schools, restaurants, hotels, etc.			
81. Transportation, storage and communication services such as operation of boda bodas, simu ya jamii, storage and warehousing activities, etc			
82. Mining and quarrying activities such as gravel, stone and sand quarrying, etc.			
83. Construction like repair of houses, building, etc.			
84. Activities not elsewhere classified.			
85. TOTAL NET INCOME FROM ENTREPRENEURIAL ACTIVITIES		85a. Add net income from 74a. to	85b. Add net income from

	84a.	74b. to 84b.
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SOURCES OF INCOME PART B

SALARIES AND WAGES FROM EMPLOYED MEMBERS		
86. During the past 12 months, how much was the gross salaries and wages earned by employed members of your household?	GROSS SALARY	
	a) In cash	b) In kind
87. Name of employed member		
1 _____		
2 _____		
3 _____		
4 _____		
TOTAL SALARIES AND WAGES	86a.	86b.

OTHER SOURCES OF INCOME PART 3.		
88. During the past 12 months, how much did you or any member of your household receive from the following?	INCOME	
	a) In cash	b) In kind
89. Net proceeds from crops, fruits and vegetables produced or livestock and poultry raised by other household members		
90. Remittances from relatives working abroad		
91. Other cash receipts, gifts, support, relief and other income from abroad including pensions, retirement, workmen's compensation, dividends from investments, etc		
92. Rentals received from non- agricultural lands, buildings, spaces and other properties		
93. Interest from bank deposits, interest from loans extended to other families		
94. Pension and retirement, workmen's compensation and social security benefits		
95. Dividends from investments		
96. Other sources of income not elsewhere classified		
97. TOTAL INCOME FROM OTHER SOURCES OF INCOME	97a. Add income from 89a to 96a.	97b. Add income from 89b to 96b
98. TOTAL INCOME IN CASH & IN KIND	98a = 85a + 86a + 97a	98b=85b+86b+ 97b
99. TOTAL HOUSEHOLD INCOME	99=98a+98b	

ASSETS TRANSFERS

100. During the past 6 months, have you made use of your savings to purchase goods?	1) Yes 2) No	
101. During the past 6 months, did you or any member of your	1) Yes	

household borrow money?	2) No	
102. Where did you household borrow money from?	_____	
103. During the last 6 months, did you or any member of your household sold belongings?	1) Yes 2) No	
104. What kinds of assets were sold?	_____	
105. During the past 6 months, were you or any member of your household received assistance from a charity organization?	1) Yes 2) No	
106 What kind of assistance?	_____	
107. During the past 6 months, were you or any member of your household received assistance from the government?	1) Yes 2) No	
108. What kind of assistance	_____	

AGRICULTURE (For those who answered Yes in Q 74)

109 What is the ownership status of the agricultural land being tilled by the household?	1) Own 2) Communal 3) Hired 4) Not owned but with permission from owner 5) Not owned and without permission from owner 96) Others, specify _____																											
110. What is the area of the agricultural land?	1) Less than 1 hectare 2) 1-3 hectares 3) 1- 5 hectares 4) More than 5 hectares																											
111. During the last 6 months, how much of the crop or fruit bearing trees did you harvest? (In bags/kilograms)	<table border="0"> <thead> <tr> <th data-bbox="609 856 885 884">Crop</th> <th data-bbox="885 856 1305 884">Quantity</th> </tr> </thead> <tbody> <tr> <td data-bbox="609 911 885 938">1. Maize</td> <td data-bbox="885 911 1305 938">_____</td> </tr> <tr> <td data-bbox="609 972 885 999">2. Bananas</td> <td data-bbox="885 972 1305 999">_____</td> </tr> <tr> <td data-bbox="609 1033 885 1060">3. Mangoes</td> <td data-bbox="885 1033 1305 1060">_____</td> </tr> <tr> <td data-bbox="609 1094 885 1121">4. Cowpeas</td> <td data-bbox="885 1094 1305 1121">_____</td> </tr> <tr> <td data-bbox="609 1155 885 1182">5. Water melons</td> <td data-bbox="885 1155 1305 1182">_____</td> </tr> <tr> <td data-bbox="609 1215 885 1243">6. Tomatoes</td> <td data-bbox="885 1215 1305 1243">_____</td> </tr> <tr> <td data-bbox="609 1276 885 1304">7. Beans</td> <td data-bbox="885 1276 1305 1304">_____</td> </tr> <tr> <td data-bbox="609 1337 885 1365">8. Sugar-cane</td> <td data-bbox="885 1337 1305 1365">_____</td> </tr> <tr> <td data-bbox="609 1398 885 1425">9. Paw-paw</td> <td data-bbox="885 1398 1305 1425">_____</td> </tr> <tr> <td data-bbox="609 1459 885 1486">10. Rice</td> <td data-bbox="885 1459 1305 1486">_____</td> </tr> <tr> <td data-bbox="609 1520 885 1547">11. Green grams</td> <td data-bbox="885 1520 1305 1547">_____</td> </tr> <tr> <td data-bbox="609 1581 885 1608">96. Other (specify)</td> <td data-bbox="885 1581 1305 1608">_____</td> </tr> </tbody> </table>	Crop	Quantity	1. Maize	_____	2. Bananas	_____	3. Mangoes	_____	4. Cowpeas	_____	5. Water melons	_____	6. Tomatoes	_____	7. Beans	_____	8. Sugar-cane	_____	9. Paw-paw	_____	10. Rice	_____	11. Green grams	_____	96. Other (specify)	_____	
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112. Do you or any member of the household use any of the following agricultural equipments/facilities?	<table border="0"> <tbody> <tr> <td data-bbox="609 1696 950 1724">1) Donkey/ox/camel, etc</td> <td data-bbox="950 1696 1096 1724">1) Yes</td> <td data-bbox="1096 1696 1305 1724">2) No</td> </tr> <tr> <td data-bbox="609 1757 950 1785">2) Plough</td> <td data-bbox="950 1757 1096 1785">1) Yes</td> <td data-bbox="1096 1757 1305 1785">2) No</td> </tr> <tr> <td data-bbox="609 1818 950 1845">3) Insecticide/pesticide</td> <td data-bbox="950 1818 1096 1845">1) Yes</td> <td data-bbox="1096 1818 1305 1845">2) No</td> </tr> </tbody> </table>	1) Donkey/ox/camel, etc	1) Yes	2) No	2) Plough	1) Yes	2) No	3) Insecticide/pesticide	1) Yes	2) No																		
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	4) Farm tractor	1) Yes	2) No	
	5) Harvester, any type	1) Yes	2) No	
	6) Farm shed	1) Yes	2) No	
	7) Irrigation pumps	1) Yes	2) No	
	8) Jembe/Hoe	1) Yes	2) No	
	9) Panga	1) Yes	2) No	
	96) Other, specify _____			

LIVESTOCK (For those who answered Yes in Q 75)

113. For the past 6 months, what number of livestock or poultry has your household raised to earn income?	Livestock/poultry	Codes	How Many?	
		1) Yes 2) No		
	1) Cow	_____	_____	
	2) Goats	_____	_____	
	3) Sheep	_____	_____	
	4) Camel	_____	_____	
	5) Chicken for meat	_____	_____	
	6) Chicken for eggs	_____	_____	
	7) Ducks	_____	_____	
	8) None			
	96) Other, specify _____			
114. For the past 6 months, what was the usual volume of production of livestock or poultry raised by your household?	1) Live animals (number of heads) _____			
	2) meat (weight in kilograms) _____			
	3) Milk (in litres) _____			
	4) Eggs (numbers) _____			

EXPORT ACTIVITIES

115. In the past 6 months did your household engage in export activities?	1) Yes 2) No	If No skip to 119
116. What was your household's average monthly export income in the last 6 months?	_____	
117. During the last 6 months, was there any decrease in your average monthly export income?	1) Yes 2) No	
118. Did your household change the export activities?	1) Yes 2) No	

NATURAL CALAMITIES

119. In the past 6 months, was your household severely affected by natural or man-made calamities such as drought, flood or conflict?	1) Yes 2) No	If No skip to 122
120. What was the natural or man-made calamity that affected your household?	1) Drought 2) Ethnic conflict 3) Flood 4) Human-wildlife conflict 96) Other, specify _____	
121. What did you lose in the calamity?	1) Livestock 2) Crops/farm produce 3) Household members 4.) Shelter 96) Other, specify _____	

SHELTER CONDITION AND FACILITY

122. House ownership status	1) Own 2) Rent 3) City council 5) Borrow 96) Other, specify _____	
123. Are there any other families living in the same house?	1) Yes 2) No	
124. If yes, how many families are living in the house?	_____ families	
125. How many persons (including respondent's family) are living in this house?	_____ persons	
126. House area	_____ M ²	
127. Type of floor	1)Tile 2)Cement 3)Wood 4)Mud 96)Other, specify _____	
128. Type of roof	1)Iron sheets 2) Makuti 3) Grass 96) Other, specify _____	

129. Type of wall	<p>1)Cement</p> <p>2) Mud</p> <p>96) Other, specify_____</p>																									
130. Main source of light	<p>1)Electricity</p> <p>2)Generator</p> <p>3)Kerosene lamp</p> <p>4)Torch/candle</p> <p>5) Tin lamp (Koroboi)</p> <p>96)Others, specify_____</p>																									
131. Main cooking material	<p>1)Firewood</p> <p>2)Kerosene</p> <p>3)Gas</p> <p>4)Charcoal</p> <p>5)Electricity</p> <p>96) Other, specify_____</p>																									
132. Does your household own any of the following items? (Functional)	<table border="0"> <tr> <td>a) Radio</td> <td>1)Yes</td> <td>2) No</td> </tr> <tr> <td>b) Television</td> <td>1)Yes</td> <td>2) No</td> </tr> <tr> <td>c) Landline telephone</td> <td>1)Yes</td> <td>2) No</td> </tr> <tr> <td>d) Mobile telephone</td> <td>1)Yes</td> <td>2) No</td> </tr> <tr> <td>e) Bicycle</td> <td>1)Yes</td> <td>2) No</td> </tr> <tr> <td>f) Motorcycle</td> <td>1)Yes</td> <td>2) No</td> </tr> <tr> <td>g) Car/truck</td> <td>1)Yes</td> <td>2) No</td> </tr> <tr> <td>h) Refrigerator</td> <td>1)Yes</td> <td>2) No</td> </tr> </table>	a) Radio	1)Yes	2) No	b) Television	1)Yes	2) No	c) Landline telephone	1)Yes	2) No	d) Mobile telephone	1)Yes	2) No	e) Bicycle	1)Yes	2) No	f) Motorcycle	1)Yes	2) No	g) Car/truck	1)Yes	2) No	h) Refrigerator	1)Yes	2) No	
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POLITICS AND SECURITY

<p>133. Did any eligible household member vote in the last general elections?(2007).</p>	<p>1)Yes every member 2)Yes some members 3)No</p>	<p>If No skip to137</p>
<p>134. Did any household member become a victim of conflict in the past year?</p>	<p>1) Yes 2) No</p>	
<p>135. If yes, what type of conflict?</p>	<p>1)Ethnic 2)Political 3)Land 96)Other (specify) _____</p>	
<p>136. What was the cause of the conflict?</p>	<p>_____</p>	

GENDER EQUITY (This section should be answered by eligible – married- women in the household)

<p>137. Do you have access and control of land and other resources?</p>	<p>1) Yes 2) No</p>	
<p>138. Would you ask your spouse or partner to use a condom if you suspected that he was unfaithful?</p>	<p>1) Yes 2) No</p>	
<p>139. Do you decide the number of children that you want to have?</p>	<p>1) Yes 2) No 3) Decide together</p>	

140. Have you been beaten by your spouse or partner in the last 6 months?	1) Yes 2) No	
141. If yes, how many times in the last 6 months?	_____	

DIMINISHING REMITTANCES

142. Did you/your household receive remittances from relatives working abroad during the past 6 months?	1) Yes 2) No	If No skip to 150
143. How much did you or any member of your household receive from remittances from relatives working abroad?	1) Kshs. 1000 - 5000 2) Kshs. 5000 – 10,000 3) Kshs. Over 10,000	
144. How often does the household receive remittances from relatives working abroad?	_____	
145. Did your household see a decline in remittances received from relatives working abroad during the last 6 months?	1) Yes 2) No	
146. How much was the reduction in remittances?	_____	
147. What is the reason for the decrease in remittances received?	_____	
148. Had there been changes in the schedule when the household receive remittances from relatives working abroad in the last 6 months?	1) Yes 2) No	
149. What is the reason for the changes in the schedule for the receipt of remittances?	_____	

ASSET LOSS

150. Do you or any of your household members have savings in the bank?	1) Yes 2) No	If No skip to 153
151. Did you lose your savings for the last 6 months?	1) Yes 2) No	
152. What is the main reason for the loss of savings?	_____	

LACK OF ACCESS TO CREDIT

153. Did your household access loan for the last 6 months?	1) Yes 2) No	If No skip to 155
154. What was the main purpose of the loan?	_____	

LIMITED ACCESS TO GOVERNMENT PROGRAM

155. Did you or any member of your household avail of any Government programs for the last 6 months?	1) Yes 2) No	If No skip to 158
156. Who provided the program?	1) Youth Development Fund 2) Bursary Fund 3) Higher education loan 4) Constituency Development Fund (CDF) 5) Women Enterprise Fund 6) Agriculture Extension Services 7) Livestock restocking program 8) Local Authority Trust Fund(LATF) 9) Relief food services 96) Others, specify _____	
157. How did the program impact your welfare?	1) Neutral 2) Positive 3) Negative 98)I don't know	

EXPENDITURE

158. How much is your household's monthly clothing expenses?	1)Less than Kshs.1000 2)Kshs 1000- 2000 3)Kshs. 2000 – 3000 5)Over Kshs. 3000	
159. Was there any decrease in your household's monthly clothing expenses during the last 6 months?	1) Yes 2) No	



END OF INTERVIEW: THANK THE RESPONDENT FOR HIS/HER TIME

INTERVIEWER'S OBSERVATIONS

COMMENTS ABOUT RESPONDENT

COMMENTS ON SPECIFIC QUESTIONS

NAME OF ENUMERATOR: _____ DATE: _____

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____