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## **HOUSEHOLD SHOCKS AND ALTERNATIVE COPING MECHANISMS OF THE VULNERABLE POOR IN UGANDA**

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### **Abstract**

The paper examines the nature of household shocks, the alternative coping mechanisms and the effects to the vulnerable poor in Uganda. The paper is based on the data from a survey conducted in four districts of Eastern Uganda. These districts have been stark in poverty because of several factors but most importantly the common shocks whose effects persist to date. Methodologically, semi structured interviews, Focus Group Discussions (FGD) and Multinomial logistic regression employed used to analyze the nature of shocks, the coping mechanisms and their effects to the vulnerable poor. Thus, effective programs that are well designed and implemented, and other consumption risk-reducing strategies need to be put in place to increase the potential welfare gains to the vulnerable poor households. The study findings show that households were substantially hit by both individual (idiosyncratic) and common (covariate) shocks in the last five years that preceded this study. The shocks had substantial welfare-reducing effects on the households. For instance drought and floods were reported by the lower welfare quintiles hence the poor were negatively more affected compared to the non-poor. The poor thus resorted to certain coping mechanisms that included: reducing consumption, sale of assets, borrowing, use of past savings and removal of children from school. The paper recommends that government and other stakeholders in poverty need to come up with better program design aiming at proper poverty targeting and programs that support existing conventional arrangements of reducing poverty.

**Keywords:** Household shocks, Coping mechanisms, vulnerable poor

### **INTRODUCTION**

#### **Background and State of Research:**

Households are usually confronted with the impact of shocks and coping with their aftermath, but also interventions designed to prevent shocks and destitution in the first place. Most societies have private inter-household, intra-family, and intra-household transfers that promote resilience to shocks, and mitigating their negative effects. However, in communities where people are universally poor, there is less to share, particularly in times of shocks that affect all or many in the society (such as drought, floods, AIDS, civil strife, or widespread structural unemployment) which is precisely when the need is most critical.

Subbarao (2003) notes that households face special circumstances affected by war situations, physical or mental disability, long term illness like HIV/AIDS, old age, unpredictable life-cycle events such as birth of twins or sudden death of the chief wage earner, sharp falls in aggregate demand due to an economic recession and poor harvest due to floods, drought and pests. Such need programs to prevent risk and mitigate the effects of shocks and these need to be assessed

so as to determine their welfare gains to the vulnerable poor. When income levels suffice to finance the very basic consumption expenditures any further cut in expenditure can have serious and in some cases catastrophic effects on household welfare. Illness of family members may be left unattended, children may be pulled out of school, or food consumption may be cut to levels that hamper normal activities or retard physical or mental growth of children. Households may even be compelled to sell productive assets (asset decumulation) to finance current consumption. Similar arguments have been put by Mohammad (2018) that households suffer more idiosyncratic shocks and as such the poor tend to choose erosive coping mechanisms. Thus the potential distress caused by downward fluctuations in incomes provides powerful incentives for poor households to make arrangements for mitigating the effects of income variability especially given that formal financial institutions that offer insurance services tend to be poorly developed in developing countries.

Morduch and Sharma (2001) argue that coping mechanisms range from the informal exchange of transfers and loans within families and communities to more structured institutions that enable an entire community to provide protections to their neediest members. In addition the authors argue that there is the self-insurance diversifying asset portfolios and reallocating labor where households lacking the means to uphold consumption during income downturns often take steps to employ production techniques that have smaller income variability. These choices however, are associated with costs for instance foregoing average profits in order to secure steady income. This implies that the available ex-post coping strategies will influence the household decisions to engage in safer but less profitable activities. Risks may be pooled across time such that a household borrows money during a 'bad' and repays during 'good' times. This implies that households are sharing risks overtime to cope with shocks. It needs to be noted that a household affected by shocks could receive a transfer from a risk pooling partner that has not been affected. This requires accurate forms of reciprocity where the current recipient is expected to reciprocate in case his members suffer income shocks. This is the case of spatial and temporal smoothing.

DFID (2006) notes that in developing countries, shocks such as drought, death in the family or reduction in commodity prices, are part of everyday life for instance between 1999 and 2004, 95 percent of the population in rural Ethiopia suffered a serious shock.

The degree to which shocks have a permanent effect on household welfare remains poorly understood. The idea that short-lived negative shocks can propel some households onto permanently lower welfare trajectories remains persuasive. Evidence from Zimbabwe shows that when solid foods replaced breastfeeding due to significant drought, children aged 1 and 2 reduced their height and their cognitive achievement at school in the long run and never recovered effectively from a temporary shock (Alderman et al 2003).

Alternative coping mechanisms of the vulnerable poor households.

The poorest households in many parts of the world Uganda inclusive face many different sources of severe risks. These sources of risks, despite the poor households' own attempts to

protect themselves in a highly constrained environment, leave them vulnerable to long-term irreversible losses of human capital. Moreover given the low incomes and assets of the poor, they are generally not able to prevent their consumption from falling due to prolonged, repeated or severe shocks but at a high long term loss of wellbeing. In addition the poor do not have an effective strategy to insure themselves against risks. These shocks therefore can have catastrophic consequences for poor households that could cause them to suffer high and often irreversible effects in terms of incomes losses which can lock them in a permanent poverty trap.

**METHODOLOGY:**

**Scope of the study:**

The study aimed at establishing the nature of household shocks, their effects and the choice of the alternative coping mechanisms among the vulnerable poor households. In particular four districts of Eastern Uganda were sampled purposively. The respondents were selected based on population projections

Table 1: Selection of sample size

District	Estimated No. of Households	Respondents
Kaberamaido	35,766	70
Katakwi	31,957	52
Kumi	73,511	71
Soroti	106,340	82
Total	247,574	275

**Data collection methods and analysis**

The FGDs guides were employed to collect data from respondents. This aimed at an in-depth understanding of the shocks and the alternative coping strategies. This was supplemented by key informant interviews on selected district officials. These were done under guided themes and information from groups was qualitatively analyzed to supplement data from the survey questionnaire.

The Multinomial model or Mlogit regression was applied to assess what determines the choice of the existing coping mechanisms. The Mlogit was relevant due to the categorical nature of the dependent variables which were the coping mechanisms and the model helped to determine what determines the coping strategy to adopt when households are confronted with a given

shock. Key household characteristics formed the independent variables and the aim was to assess their ability to influence the choice of adopting a given coping mechanism.

For modeling choices, the model relies on the assumption of the Independence of the Irrelevant Alternatives (IIA) which states that the odds do not depend on other alternatives that are not relevant. This was very relevant for this particular case of study because households affected by shocks will adopt a given strategy after realizing that it is the best at the prevailing circumstances. This is a core hypothesis in rational choice theory. Some studies however, show that individuals often violate this assumption as it may sometimes impose much constraint on the relative preferences between the different alternatives (Hausman and McFadden 1984). Moreover the clearest case of a violation of this property is when certain outcomes serve as substitutes.

Using a structured household survey questionnaire, that had been pre-tested; data on type and nature of shocks and coping mechanisms was collected so as to measure the determination of the choice of the alternative coping mechanisms. Percentages and frequencies and other cross tabulations were employed to determine the relationship between shocks and household welfare. This was measured in terms of loss of property, business, animals, displacement, low yields and children dropping out of school.

## **EMPIRICAL FINDINGS ON HOUSEHOLD SHOCKS AND COPING MECHANISMS OF THE VULNERABLE POOR**

### **The nature of shocks and their effects.**

The shocks were mainly in the categories of natural for instance floods or man-made like wars; or idiosyncratic that is household specific like death of the household head, or covariate shocks that were widespread affecting everybody for instance drought; single or repeated shocks. The major shocks included drought, floods/hailstorm, pest attack, civil strife, bad seed quality, livestock epidemic, robbery, fire accidents, and death of household head or chief wage earner among others. These had far reaching welfare-reducing effects to the households depriving them of livelihood.

The economic activities including agriculture came to a standstill". Moreover, "drought and floods were also welfare-reducing in terms of low yield and sweeping away crops which turned the people in the region into mere receivers of relief aid" as argued by some of the key informants.

The shocks thus had disastrous effects on welfare of the poor households in the sub region. The distribution and the frequency of occurrence by the shocks varied from district to district and from household to household and hence affecting the majority of the households.

The resultant effects of shocks were measured in terms of loss of property, animals and lives, reduced meals consumed per a given day, loss of money and businesses, people stopping to work, psychological torture due to displacement and loss of identity, children dropping out of

school and poor health and transport. This was mainly because some shocks led to destruction of crops and loss of animals. The implication was that economic activities in the region came to a standstill and hence peoples livelihood and sources of incomes were destroyed. This created and increased vulnerabilities and numbers of poor people. Evidence from the survey questionnaire reveals that almost all the types of shocks both idiosyncratic and covariate befell the eastern region in the last five years preceding this survey as table 2 shows;

**Table 2: Percentage distribution of households shocks by districts**

Types of shock	Districts				Total N= 554
	Kabera n =119	Katakwi n = 120	Kumi n = 130	Soroti n = 185	
Drought	71.9	93.4	97.6	75.1	83.5
Floods	72.6	95.4	48.8	79.4	73.5
Pest attack	29.5	81.6	73.0	22.1	47.1
Civil strife	40.4	76.3	50.7	12.8	38.9
Bad seeds quality	44.5	81.6	66.2	26.2	49.6
Livestock epidemics	49.3	52.6	44.9	43.8	46.7
Robbery/theft	48.0	25.7	35.8	29.7	33.7
Fire/accidents	28.8	23.0	23.7	19.7	23.0
Death of head of household	4.1	2.0	1.0	2.2	2.2
Money laundering	0.2	0.2	6.3	0.5	7.2
Fogged projects	0.2	0.0	5.1	0.5	4.8

The row show the overall percentage regarding the effect of the household shock and the table above shows a case of multiple responses where a respondent is able to indicate for more than one shock and thus the percentage distribution would range between the lowest and the highest showing the magnitude and weight of the problem. The respondents were asked to state whether they experienced a shock during the past five years that preceded this study. The overall percentages for all the districts surveyed are as indicated in the last column per given shock.

**Shocks and effects on household welfare of the vulnerable poor.**

The effects of shocks on welfare were also analyzed by the use of wealth quintiles so as to be able to determine the differences in the effects between the different categories of income groups. This was done on the premise and as expected that the most vulnerable are usually more affected by the shocks compared to the non-vulnerable since the former are less resilient to shocks. The expenditure quintiles would help in assessing the distribution of shock effects among the poor and the rich through the rate at which shocks are reported and this would help policy regarding the intervention mechanisms on the different shocks among the different groups of people. Thus the more people report a given shock the more effect it is likely to put to the specific welfare quintile as table 3 below shows.

**Table 3: Reported incidence of shocks by welfare quintile**

Types of shock	Welfare quintiles				
	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Drought	86.1	79.8	88.8	81.2	85.3
Floods	77.8	70.6	69.8	68.4	67.2
Pest attack	60.7	52.9	34.5	47.9	61.2
Civil strife	47.0	47.9	30.2	37.1	50.0
Bad seeds quality	47.0	57.1	44.8	44.4	55.2
Livestock epidemics	39.3	36.9	40.5	47.9	53.4
Robbery/theft	22.2	22.7	43.9	32.5	36.2
Fire/accidents	19.7	26.9	30.2	31.6	23.3
Death of head of household	58.1	57.1	49.1	58.9	62.1
Death of others family members	0.9	2.5	3.4	1.7	1.7

The table above shows the reported incidence of shocks by respondents based on expenditure quintiles and the findings show for instance that drought, floods and bad seed quality were more commonly reported among the lower quintile groups compared to the higher income categories or richer households. Drought however, was generally high regardless of the quintile category and this emphasizes the covariate nature of this type of shock which would affect the whole community and all households would be affected. Therefore the effects of these shocks make the poorer households more vulnerable compared to the non-poor. The argument is that the poor are less resilient to shocks and this means that their ability to withstand the shock effects is very weak implying that their welfare will always be at stake at least in the short run whenever shocks happen. Moreover, most of the available means to cope with shocks are themselves not welfare-friendly to the vulnerable poor for instance reduction in consumption which could involve reducing the number of meals per day with all the nutritional problems, removing children from school and selling assets leading to asset depletion with its aspects of intergenerational poverty among others.

Death of a household head who is a chief wage earner was commonly reported almost equally among the lowest quintile and the highest implying that the welfare of such income categories would be tremendously affected by the loss of such ahead.

The occurrence of shocks meant that the main indicators of household welfare were negatively affected and such included income, the occupation of the household head, change in the wages of head of the household, bankruptcy as a result of loss of household business, death of a member of the household, low prices of household business products and high costs of household business inputs. In addition, as a result of shocks household insurance became lose, selling or

mortgaging of household assets, changes in the hours of work like increasing the number of weekly working hours so as to increase or maintain the level of income impacted negatively on household welfare. Moreover, disaster events meant payment for household emergencies or payment for tuition or debts or investment in livestock or agriculture or for savings; changes in consumption behaviors for instance substituting consumption of certain products for less expensive ones or stopping consuming of certain products, or decreasing the daily consumption quantity of food like milk, meat or decreased entertainment and decreased frequency of buying of clothes as argued by Subbarao (2003). Other effects of shock are associated with intergenerational poverty like children dropping out of school, malnourishment as a result of reduced number of meals per day and lack of proper diet, unequal gender outcomes and high exposure to diseases such as HIV/AIDS as a result of migrations and household members being asked to go and stay relatives and friends. The frequent occurrence of shocks among the households coupled with lack of effective shock coping mechanisms in the region has made the households vulnerable to poverty. Idiosyncratic shocks affects only an individual household, for example illness or death of a household member. On the other hand, covariate shocks impinge an impact on a larger group of population in the same area at the same time, for instance adverse weather condition. In the absence of functioning formal coping mechanisms, the households resort to borrowing, adjustment in food intake, sale of goods or removing children from formal school (Shehu & Sidique 2015).

The pest attack, bad seed quality therefore created in a way financial /economic crisis as means of livelihoods were destroyed. The bad seed quality was characterized as a shock by the surveyed population because they least expected such a misfortune of seeds not germinating at the time they wanted to get out of the effects of drought and famine. This is in agreement with existing literature that the financial and economic crisis that occur in any region can put serious effects especially to the poor who are below poverty line and those who are suddenly poor due to losing their jobs, staying on credit and losing gainful income as is the case advanced by Chira, (2001).

### **Alternative coping mechanisms, their determinants and effects to the vulnerable poor households**

There were various coping strategies used by households in eastern Uganda to prevent risks and mitigate effects when confronted with shocks/disasters and table 3 shows the main coping mechanisms

**Table 3: Percentage distribution of coping mechanism by district.**

Coping mechanism	Percentage by Districts				Overall percentage
	Kaberamaido (n=119)	Katakwi (n=120)	Kumi (n=130)	Soroti (n=185)	
					N= 554
Mortgage	25.0	2.7	18.5	3.4	11.3
Sale of assets	73.6	41.8	47.8	58.2	55.6
Use past savings	46.9	29.5	57.1	14.6	33.9
Withdraw of children from school	38.9	5.5	11.2	13.0	15.6
Send children to live elsewhere	31.9	10.3	22.9	22.2	22.3
Migration	22.2	24.7	20.0	16.0	20.4
Formal borrowing	27.8	8.9	20.0	15.0	17.4
Informal borrowing	54.7	14.4	54.2	55.1	46.9
Reduce consumption	61.8	47.3	61.5	59.0	57.5
Help from relatives and friends	44.9	56.7	33.3	29.2	44.9
Help from local government	21.5	47.3	30.7	18.0	27.2
Wage employment	8.3	28.8	53.2	3.06	21.9
Change crops	27.8	4.1	33.7	5.4	16.6
Help from NGOs	53.47	52.7	22.4	36.7	38.3

The results, whose percentage distribution varied from district to district and also depending on the type of alternative coping strategy had far reaching effects. Borrowing was one of the main strategies to prevent risks and mitigate the effects of shocks. Informal borrowing was reported at 46.9 percent compared to 17.4 percent of formal borrowing. The explanation given was that the very poor cannot afford the formalities and bureaucracies of formal banking institutions and yet they lacked collateral security. There is also high level flexibility with the informal sector borrowing including no opening accounts and quick availing of cash to the borrower who has been affected by a shock. In some cases however, even the landlords and other would-be money lenders were affected by shocks in which case they would not be in position to provide the assistance. Moreover in some cases money available would not be adequate or the borrowers would fail to remit the borrowed funds resulting into attachment of property making the poor more impoverished.

The results reveal that households cope with shocks by seeking for help from government, NGOs and the community to include relatives and friends. The help from relatives and friends was reported at 44.9 percent, NGOs at 38.3 percent and local government at 27.2 percent. The kind of help varied depending on the donor and the type of shock and whether it was a covariate shock or idiosyncratic. The most common type of help included food and other relief items, provision of seeds, animals, lending affected households, shelter and taking care of children.

The results show that mortgaging of assets was used as an alternative coping mechanism and this was 11.3 percent of the households surveyed. In a number of situations households would not receive back the mortgaged items from the relatively well-off since they would fail to pay back hence losing valuable assets.



Sale of assets to cope with shocks and downturns in income was reported at 55.6 percent as households reported having sold their assets so as to prevent risks and cope with shocks in order to smooth their incomes and expenditure. The common assets usually sold were land, bicycles, domestic animals, radios and furniture. Sale of assets was an important aspect for vulnerable households to survive the disastrous effect of disasters as they create time to wait for help from local government and NGOs.

The results also reveal that households used past savings to cope with downturns in income so as to smooth consumption and expenditure short falls. It is important to note that savings considered by this study included, other than savings on banks, stored food that was very crucial in times of disasters. For instance 33.9 percent of the survey population reported to have used their past savings to cope with household shocks.

The results show that withdrawing children from school was also a coping strategy for some households to smooth consumption and expenditure shortfalls. For instance out of the households surveyed 15.6 percent reported to have withdrawn their children from school so as to cope with problems of shocks.

Wage labor employment in term of putting in extra hours of work was another coping strategy by vulnerable poor household. This implied putting in more hours of paid work including child labor so as to earn extra income in order to smooth consumption and expenditure shortfalls to overcome the effects of shocks. This was reported at 21.9 percent which unfortunately had a negative connotation as individuals were compelled to work beyond their means. Most important is that the act involved aspects of children being removed from school to provide casual labor for supporting household income. This is however, associated with low productivity and child labor problems.

In addition the results reveal that other coping mechanisms include sending children to live with their relatives or friends or migrating to other areas considered safe from given disasters. Migration was mainly during the civil strife where households would temporarily migrate to prevent themselves from the risk associated with such shocks for instance 20.4 percent reported to have migrated. Such strategies help the poor to overcome short term effects of the effects of disasters or even prevent the potentially disastrous effects from the shocks. It is however, important to note that these shocks were not sustainable as they are associated with high costs to the poor for instance migrations bred more conflicts, destitution and other social upheavals as families separated from each other and these are indicators of poverty.

The results of the study indicate that households reported having reduced their general consumption of goods and services so as to cope with downturns in incomes or prevent risks. Reduction in consumption even involved reduction on the number of meals per day for instance, 24.7 percent of the surveyed population reported having reduced their meals to smooth their income and expenditure shortfalls. Reduction in consumption even meant reducing expenditures on other common user items however; essential they could appear to be to the households.

### **Choice of the coping mechanisms and their effectiveness**

The coping mechanisms identified included mortgaging and selling of assets, withdrawing children from school, migration or sending children to live elsewhere with relatives, borrowing, using past savings, reducing consumption, seeking help from relatives, government and Non-Government Organizations.

Arising from the employment of FGD and use of a multinomial logistic regression, which was best suited for this kind of data, valuable information on the determinants of the choice of coping mechanisms and their sustainability, effectiveness and costs involved on each coping strategy was obtained. Thus when the poor are confronted with shocks they have within their means various coping mechanisms some of which are bound to be associated with costs of their own. A more important issue about coping with shocks is that of diversity of resources and trajectories were households' incomes do not grow at the same rate in a given community. Households that move faster tend to isolate themselves from those that remain behind and thus the non-poor tend to pull away from community based insurance obligations and perhaps form their own to the disadvantage of the poorer households. In addition there is the self-insurance diversifying asset portfolios and reallocating labor where households lacking the means to uphold consumption during income downturns often take steps to employ production techniques that have smaller income variability; poorer farmers avoid new crop varieties that yield higher revenues but involve learning period.

It needs to be noted that the poor have limited choices or alternatives to choose from when crises like drought, floods, civil strife and others occur which leaves them with selecting those that may have long term or intergenerational negative effects. Coping mechanisms are usually meant to relieve the impact of shocks once they have occurred. Such mechanisms can turn ineffective as everybody for instance, sells assets to buy food leading into reduction in short asset prices and increases in food prices more so when the shocks are covariate affecting the whole community or at least the majority of the households. Such arguments have been put forward in a study done in Bulgaria where households cope by additional work (World Bank 2010).

Analysis of the alternatives coping mechanisms with regard to their sustainability, effectiveness or efficacy and costs and or benefits associated with them was very important as shocks persist and households continue to apply various and at times uncoordinated coping strategies. Some of the coping mechanism adopted had issues of sustainability and effectiveness of the ex post welfare outcomes from the strategies to cope with shocks since the ex-ante measures to prevent and mitigate risks and household shocks have proved inappropriate at least at the moment. The results show that there were a number of factors which influenced the choice of the alternative coping mechanisms sex, marital status, age, education level, occupation, household size and the district of residence of the household head. These indeed influence the type and the nature of the coping strategy by given households. The main coping strategies were coping through sale of assets, reduction in consumption, borrowing, and help from relatives and friends, use of past

savings, withdrawing children from school, engaging in other crop varieties and sending children to live with relatives.

### **Coping through reducing consumption**

Poor households also try to cope with expenditure and downturn in incomes as a result shocks through reduction in consumption, and the descriptive statistics puts this at 57.5 percent rated the highest among the rest of the strategies employed. This was found easily affordable by the majority of the households compared to sell off assets since the poor did not have assets to sell or borrowing since they did have security and help from relatives where the shock were covariate in nature and everyone in the community is affected. This coping strategy was linked to the one reducing meals as a shock coping mechanisms which was however, associated with high cost of malnutrition problems mainly among children and even adults as they fail to obtain the necessary caloric food requirements. The findings are similar with studies of Amendah. D, Buigut.S and Mohamed. S. (2014) that the most frequently used strategy is related to reduction in food consumption: more than two-third of the households (69%) report eating fewer numbers of meals during a day. The second most commonly used strategy is accessing credit: more than half the households (52%) report purchasing household goods or food on credit. Loan facility is used by about 27% of the households. I

The econometrics analysis using multinomial logistic regression generally showed that household characteristics and other intervening variables generally influenced the extent of coping through reduction in consumption and this put the sustainability of such coping strategies at stake. The multinomial logistic regression results showed that these factors influenced differently a particular coping strategy. These explanatory variables included the age of the household head, the different levels of education, sex, marital status, participation in certain programs and income generation activities of vulnerable group and the district of residence. The relative risk ratios of primary education, secondary education, income category or the second quintile, the household size and the districts of residence of the respondents were all high implying a high probability of coping with reduction in consumption compared to obtaining help from relatives and friends. They were also highly significant implying the statistical importance they possess in impacting on the probability of influence on the dependent variable. This means that policy needs to target increasing the vocational isation of education and understanding the district and other household characteristics.

### **Coping through sale of assets**

Coping by sale of assets was one of the strategies used to cope when households faced income shortfalls. The results reveal that sale of assets to cope with consumption and expenditure shortfalls was however, associated with high costs to the vulnerable poor as they disposed off their only valuable assets, their only means of livelihood like land, cattle and in extreme cases sale of household items. This meant that they were now even more vulnerable in the event of future shocks happening. The implication is intergenerational or perpetual poverty and increased vulnerability as the poor sell their only and most important means of livelihood or the only asset at their disposal and hence a reduction in welfare. This is consistent with other studies Kalinda & Langyintuo 2014) who indicate that rainfall variability as manifested in droughts and erratic

rainfall patterns was identified as a major shock and the most critical source of risk and vulnerability which has been causing frequent production losses and seasonal food shortages among the households. The households are engaging in various activities to cope with the various stresses and shocks.

### **Coping through borrowing.**

Borrowing mainly from informal lenders was a coping strategy that the poor could not do without, although it had its own costs. Other intervening variables were fitted in the model to assess the extent of household characteristics in influencing coping through borrowing and such included, the age, sex, marital status, level of education and occupation of the household head. This therefore shows the extent to which borrowing can provide a rescue to such affected households and this would require credit programs to supplement any existing informal arrangements. It should be noted that such programs not only focus on loans for business development but also those funds are sufficiently fungible that they can often help to provide extra cash to allow households cope with consumption shocks. In addition new businesses can also start to provide households with income diversification which may help smooth consumption over seasons. Access to credit can also serve as a means of insurance allowing the poor to borrow in bad years against future incomes and moreover small loans could have a large impact on income risk exposure as they involve important set up costs. This requires that microcredit institutions offer flexible products that allow the poor to enter despite being faced with substantial risk. But for the case of Uganda issues of high interest rates by microcredit institutions has not been resolved and this sends the poor into deeper poverty and at the same time does not motivate them to save since the deposit rate is very low and this partly explains why the majority households in eastern region could not use past savings to avert the disaster situations.

### **Coping through help from relatives and friends.**

Coping through obtaining help from the community was one other main strategy for households to smooth both consumption and expenditure shortfalls. The findings indicate that coping through help from other people had its own challenges for instance, 69.0 percent help was in form of food, an important aspect in reducing short term poverty of the vulnerable poor. However, a critical assessment of the type of help reveal that in some cases the help mainly from the community did not possess substantial welfare gains more so when the shock was covariate and only sympathies in form of moral support or advice would be given to the affected household!

Households can be expected to make pre-arrangements to mitigate distress once events resulting in income losses have already occurred. Various informal mechanisms such as risk falling arrangements like Rotating Savings and Credit Associations (hereafter called ROSCAs) among kinsmen, friends, neighbors, use of accumulated precautionary savings and credit lines maintained with different types of lenders are used to finance expenditures to uphold average consumption levels during income downturns (Nahamya 2000). For instance ROSCAs in Africa like the *susu* in west Africa have emerged important players in many parts of the world; households increase their incomes and in turn increase their savings. These are consumption

smoothing mechanisms that value their roles as support networks and that support often comes in form of transfers, either in kind or in cash. These however, are always associated with long term costs as argued by Subbarao (2003) and when analysis of the type of held is done, it clearly shows that they cannot be sustainable and moreover in a number of cases the shocks were covariate in nature covering the whole community implying that the rest would also be helpless.

#### **Use of past savings.**

Past saving though used as a coping mechanism had its own implications. Thus risk-averse households would have a strong incentive to take steps to contain distress to some levels. These always make pre-arrangements to mitigate distress after events have occurred for instance the aftermath of bad weather or reduced labor due to illness and these are ex-post risk coping arrangements. The above can be reinforced by promoting more self-insurance via savings and via microcredit. This does not suffer important information problem as there is no issue of adverse selection or moral hazard. The main problem is the potentially high transaction costs and need for credibility of institution with few exceptions like Safe Save in Bangladeshi. Thus savings and microcredit can increase assets and incomes which will allow savings to increase and thus provide a buffer against future hardship.

The study findings show that households cope with downturns in incomes through using accumulated savings/assets during times of surplus. This could be a result of building up a savings account, hiding cash, or purchasing durable goods/items. Most poor households however, do not possess formal bank accounts but they rely on assets that have a risk of their own like livestock that are vulnerable to illness and adverse price shocks. There are various informal mechanisms of the kind in form of risk pooling arrangements among kinsmen, friends, and neighbors, use of precautionary savings and credit lines with lenders to finance expenditures during downturns in incomes. These are consumption smoothing strategies.

#### **Withdrawing children from school.**

Withdrawing children from school so as to cope with household shocks was another strategy but with own repercussions. Children would be withdrawn from school to avoid any cost on them and girls married off to obtain some survival income. Whereas this is not statistically very significant, the act perpetuates poverty among the vulnerable poor households as their children remain with no education yet this is an important determinant of household welfare. This therefore implies that addressing issues of disasters is not only a humanitarian issue but fundamentally a development questions as pointed out by Lautze et al (2005). Development strategies must be careful not to proceed apace without considering how development resources can mitigate the shocks.

#### **Determinants of alternative coping mechanisms**

The above findings from the use of FGDs and use of key informant interviews are consistent with the Mlogit results in that various factors influence the type and magnitude of the coping strategy and these are interpreted in terms of the relative risks ratios and the level of significance of the results. Males compared to females, were less likely to use reduction in consumption as a

coping mechanism more compared to coping by obtaining help from relatives and friends but this was not statistically significant. This means the sex of the head of the household has got a bearing on the type of coping mechanisms. Married household heads were more likely to cope by reducing consumption as compared to depending on help from relatives and friends and this was also highly statistically significant. The result indicate that the chance of a married person of choosing coping by reducing consumption over obtaining help from relatives and friends was 5 times that of the unmarried household head. This means that marital status influences the coping strategies of given households and this implies that policy design should have a bearing in the marital status of the household head. The levels of education of household heads influenced the coping mechanisms of the poor. The chance of the household head that had completed primary education choosing to cope by reducing consumption as a coping mechanism for shocks as compared to over depending on help from relatives and friends was 51.9 times that of the one that did not complete primary education.

The age of a given household head in terms of quintiles also did influence and thus determine the type of coping mechanisms for instance one being older was more likely to cope by reducing consumption compared to obtaining help from relatives and friends and this was also statistically significant. According to the results, the chance that a household head that is older would choose coping by reducing consumption over obtaining help, was 2.8 times that in the lower age brackets.

The size of the household in terms of number of people influenced the coping mechanism type. This was more likely to influence coping by reducing consumption compared to obtaining help from relatives and friends and it was also significant. The chance of a household head belonging to a bigger family choosing to cope by reducing consumption over obtaining help from relatives and friends is 482.5 times that from a small family size.

Residency in a given district also impacted a lot on the nature and type of coping as the relative risk ratios show with varying degrees across the different districts and the results were all statistically significant. For instance the results show that a resident of Katakwi had more chances to coping by reducing consumption over obtaining than the one Soroti and Kumi districts. This meant households were more likely cope by reducing consumption compared to obtaining help from relatives and friends depending on the districts of residence.

The chance that a married household head choosing coping by selling their assets as compared to depending on help from relatives and friends is 1.6 times that of his unmarried counterpart and this was also highly statistically significant. This means that marital status influences the coping strategies of given households and this implies that policy design should have a bearing in the marital status of the household head. The levels of education of household heads influenced the coping mechanisms of the poor. The chance that a heads of household who had completed tertiary, secondary and primary education respectively coping by sale of assets over obtaining help from relatives and friends is 2.9, 1.9 and 1.1 times that of the counterpart that did not complete the levels of education. The results show that they were all statistically significant apart from primary education. This implies that the nature of coping was influenced much by the levels of education perhaps.

The size of the household in terms of number of people influenced the coping mechanism type. This was more likely to influence coping by sale of assets compared to obtaining help from relatives and friends and it was also significant. According to the results, the chance that a household head in bigger family size choosing coping by sale of assets over obtaining help from relatives and friends is 3.4 times that of the counterpart with a small family size.

Males compared to females, were less likely to cope through borrowing as a coping mechanism compared to obtaining help from relatives and friends and this was statistically significant. This means the sex of the head of the household has got a bearing on the type of coping mechanisms as men can easily possess the assets to give as collateral to money lenders and financial institutions.

Married household heads compared to the unmarried counterparts were less likely to cope by borrowing as compared to depending on help from relatives and friends and this was also highly statistically significant. This means that marital status influences the coping strategies of given households and this implies that policy design should have a bearing in the marital status of the household head.

The levels of education of household heads influenced the coping mechanisms of the poor. Heads of households that had completed primary and secondary education were more likely to cope by sale of assets as a coping mechanism as compared to depending on help from relatives and friends though the regression results show that they were all statistically significant apart from primary education. For instance the chance that the household head who completed secondary education choosing coping by borrowing over help from relatives and friends is 8333.4 times that of the non-educated counterpart and likewise the chance that the one who completed primary education choosing coping by borrowing over help is 17.3 times that who did not. This implies that the nature of coping was influenced much by the levels of education perhaps. However, tertiary education showed a different picture where it was less likely to cope by borrowing compared to obtaining help from relatives and friends though results were statistically significant.

### **Conclusion**

The study attempts to examine the household shocks coping mechanisms nexus in order to determine the extent to which shocks affects the vulnerable poor. Such therefore require a form of Social protection that has always, in Uganda, been dominated by social assistance for the vulnerable groups, and emergency relief. It is argued that for poor households, downturns in income, even if temporary, can cause severe hardships and in the absence of any insurance mechanisms, income losses would have to be absorbed by equivalent expenditure reductions. Moreover any cut in expenditure can have serious and in some cases catastrophic effects on household welfare. Illness of family members may be left unattended, children may be pulled out of school, or food consumption may be cut to levels that hamper normal activities or retard physical or mental growth of children. Households may even be compelled to sell productive assets (asset decumulation) to finance current consumption. Thus the potential distress caused by downward fluctuations in incomes provides powerful incentives for poor households to make arrangements for mitigating the effects of income variability especially given that formal

financial institutions that offer insurance services tend to be poorly developed. This implies that for such problems to be addressed effective formulation, design and implementation of safety net programs are paramount

**Policy Recommendations.**

The study based on the findings makes the followings policy recommendations;

1. Interventions designed to mitigate shocks by addressing the causes of vulnerability should protect assets and should emphasize livelihood diversification. This livelihood diversification could be in terms of provision of adequate and quality agricultural inputs by encouraging growing of different crop varieties that are drought and pest resistant and this can be done by the relevant departments supplying such agricultural inputs at no cost. Early warning systems about given shocks can be put in place such that appropriate mechanisms are given to the communities.
2. There is also need to consider the administrative capacity, information and costs because poverty targeting requires information on incomes to identify poor households and in addition administering conventional interventions that aim at providing safety nets to the vulnerable poor households when confronted with poverty.

**REFERENCES:**

- Alderman Harold, Yamano Takashi and Christiaensen Luc (2003), Child Growth, Shocks, and Food Aid in Rural Ethiopia.
- Amendah. D, Buigut.S and Mohamed. S. (2014), Coping Strategies among Urban poor: Evidence from Nairobi, Kenya.
- Chira Hongladoron (2001), *Comparative Social Safety Nets*. Paper presented at Leadership Forum by the Foundation for International Human Resource Development; Bangkok Thailand DFID (2006), Social Transfers and Chronic Poverty.
- Hausman Jerry and McFadden (1984), "Specification Tests for Multinomial Logit Model"; *Econometrica*, 52 (5): 1219-1240
- Kalinda. T and Langyintuo. A. (2014), Livelihood Strategies, Shocks and Coping Mechanisms among Rural Households in Southern Zambia
- Lautze Sue, AkliluYacob and Boyd Erin (2005), Assessments and Appeals: Strengthening Non-Food Emergency Responses in Ethiopia. The Livelihoods Program- Saving Lives and Livelihoods, USA.
- Mohammad. H, (2018), Shocks and Coping strategies of the poor.
- Morduch Jonathan and Sharma Manohar (2001), "*Strengthening Public Safety Nets: Can the Informal Sector Show the Way?*" International Food Policy Research Institute: Washington D.C.
- Nahamya Wilfred (2000), "The Role of Informal Savings and Credit Associations in Poverty Reduction in Fort Portal Municipality. MA. Thesis Makerere University Kampala
- Shehu. A. and Sidique S. (2015). The effects of shocks on household consumption in rural Nigeria: *The Journal of Developing Areas*; Vol 49 (3) 2015
- Subbarao Kalanidhi (2003), Systematic Shocks and Social Protection: Role and Effectiveness of Public Works Programs: Social Protection Unit; Human Development Network. The World Bank. Washington D.C.
- World Bank. (2010), Household coping Mechanisms