# Factors Influencing Households' Income Shock Exposure and Coping Options in Nigeria

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Abstract: Income shock is the driving force of poverty in Nigeria. This study analyzed the different forms of shocks that households experienced with some welfare losses. The Core Welfare Indicator Questionnaire (CWIQ) data that comprise of 75329 households were used. The data were analyzed with simple descriptive methods and Probit regression. The results show that probability of shock exposure decreases significantly (p<0.01) with access to improved drinking water, improved toilet, health facility well/borehole, agricultural inputs, agricultural produce buyers, consumer goods, employment opportunities, assets and credit facilities. It was recommended that ensuring that development projects target the poor will assist in reducing their exposure to shocks.

[Abayomi Samuel Oyekale. Factors Influencing Households' Income Shock Exposure and Coping Options in Nigeria. Life Sci J 2012;9(2):595-601]. (ISSN:1097-8135). <u>http://www.lifesciencesite.com</u>. 91

Keywords: Shock, poverty, development projects, Nigeria.

# 1. Introduction

Conventional approaches to analyze poverty typically focus on understanding the levels and distribution of welfare in a specific context. Such efforts are essentially crude, and are rarely channeled towards informing policy makers about the underlying processes that contribute to poverty dynamics through poverty modeling that takes cognizance of households' exposure to income or consumption shocks. Recently, a natural complement to the traditional poverty analysis is the introduction of shocks variables that makes it possible to assess households' vulnerability. This adds some values to the processes of policy dialogue by introducing a comprehensive framework to properly understand poverty dynamics or vulnerability and the reasons behind those that are chronically poor (Hoogeveen et al., no date).

Conceptually, vulnerability describes occurrence of events that have undesired effects on individuals, households, communities, countries and enterprises (Cuna, 2004). It is the outcome of risk exposure and coping capacity of the households (Chambers. 1989). Cuna (2004)defined "vulnerability as the inability of a household to secure its living standards in the face of a certain negative event". This definition portrays vulnerability as a combination of exposure to negative events and the capacity of the households to cope with it (Chambers, 1989). Therefore, it is important to have a clear understanding of the nature of the shock (Sinha and Lipton, 1999), transmission mechanism and households' or communities' coping options for better policy information (Shaffer, 2001; Dercon, 2001).

In Nigeria, the growing problem of poverty had been described as suffering in the midst of plenty

(World Bank, 1996). Precisely, 65.6 percent of the population - (about 67.5 million) - was poor in 1996. The proportion reduced to 54.4 percent in 2004 (about 72 million) (FGN, 2005) before increasing to 69 percent in 2010 {National Bureau of Statistics (NBS), 2010}. These scenarios clearly reveal that poverty as a problem in Nigeria should be addressed with some notions of emergencies. The Nigerian government has focused on the National Poverty Programme (NAPEP) Eradication that was introduced early in 2001 as one of the foremost poverty alleviation programs. Also, given the multidisciplinary approach that is required for poverty alleviation, some government parastatals have been saddled with the responsibilities of implementing some development programs that are meant for reaching the poor. Thus, achieving the MDG of halving poverty level by 2015, which is a prerequisite for achieving the other seven profoundly attractive goals, is a daunting challenge that Nigerian policy makers must address.

It should be emphasized that previous poverty reduction programs in Nigeria did not fully achieve their objectives. It is therefore not sure whether the country lacks sufficient capacity to mitigate social risks faced by households and communities, and/or whether the country has not paid sufficient attention to the issue of shocks and uncertainty that are important for understanding the processes of poverty dynamics (Alayande and Alayande, 2004). Therefore, to fully address poverty, Nigerian policy makers need a more comprehensive understanding of the different forms of shocks that subject households to perpetual poverty. This is important because of the implications of different policy reforms that the economy had undergone in the recent time.

Furthermore, given the importance of welfare shocks, policy makers are beginning to implement programmes to cater for the needs of vulnerable households. Essentially, Christiansen and Subbarao (2001) submitted that the need for addressing vulnerability in any human development strategy in conjunction with poverty is two fold. First, not being vulnerable has some intrinsic value. This is because for a person to be considered nonpoor, he must not only have enough to live a comfortable life today, but he must also possess some good prospect today that he will have enough to live a comfortable life tomorrow. Second, addressing vulnerability has instrumental value. Because of the many shocks household face, they often experience wide variability in their incomes. In absence of sufficient assets or insurance to smooth consumption, such shocks may lead to irreversible welfare losses, such as distress sale of productive assets, reduced nutrient intake, or interruption of education that permanently reduces human capital, thereby locking their victims in perpetual poverty.

It should also be noted that while many studies have addressed the impact of shocks on households' welfare, not much emphasis had been placed on determining those factors that expose them to shocks. For instance, we may ask ourselves, is it because of their lack of education, assets, residence in certain part of the country or some other reasons that make households to experience income shock? Therefore, this paper seeks to answer two questions: First, what are the socio-economic characteristics of those that are affected by income shocks? Second, what are the different coping options available to shock affected households? Provision of answers to these questions will form some bases for policy formulation in order to reverse the upward trend of poverty in Nigeria. In the remaining parts of the paper, materials and methods, results and discussions and recommendations are presented.

# 2. Materials and Methods

The Data

We used the 2006 Core Welfare Indicator Questionnaire (CWIQ) survey data. The survey was conducted by the National Bureau of Statistics (NBS). A two-stage cluster sample design was adopted in each LGA. The first stage involves the Enumeration Areas (EAs), while Housing Units (HUs) constitute the 2nd stage. The National Population Commission (NPopC) EAs as demarcated during the 1991 Population Census served as the sampling frame for the selection of 1st stage sample units. In each LGA, a systematic selection of 10 EAs was made. Prior to the second stage selection, complete listing of Housing Units (and of Households within Housing Units) was carried out in each of the selected 1st stage units. These lists provided the frames for the second stage selection. Ten (10) HUs were then systematically selected per EA and all households in the selected HUs were interviewed. The projected sample size was 100 HUs at the LGA level. The sample size using other defined reporting domains (FC, senatorial, state and geo-political zone) varied, depending on the number of the LGAs that made the reporting domain. Overall, 77,400 HUs were drawn at the national level out of which 59567 were from the rural areas and 17833 from urban areas. However, only 75329 were properly completed, and these were used for this study.

# Probit Regression

The Probit regression method was used to determine the factors that predispose farm households to shock. We are interested in estimating the probability that the respondents are vulnerable to welfare shocks given some implemented development projects and their socio-economic characteristics  $(X_i)$ . The estimated equation can be expressed as:

1

# $Y_i = \propto +\beta_i \sum_{i=1}^n X_{i+} e_i$

 $\propto$  is the constant,  $\beta_i$  is slope of coefficient  $e_i$  is the error term. Also,  $X_i$  are the explanatory variables where  $i = 1, 2, 3, \dots, n$ . The explanatory variables are Food problem (yes = 1, 0 otherwise), school fees problem (yes = 1, 0 otherwise), house rent problem (yes = 1, 0 otherwise), utility problem (yes = 1, 0otherwise), health bill problem (yes = 1, 0 otherwise), materials of the roof (improved = 1, 0 otherwise), materials of the wall (improved = 1, 0 otherwise), materials of the floor (improved = 1, 0 otherwise). type of housing unit (flat/duplex/whole building = 1, 0 otherwise), improved drinking water (yes =1, 0otherwise), problem with drinking water (yes = 1, 0otherwise), improved toilet (yes = 1, 0 otherwise), electricity (yes = 1, 0 otherwise), modern cooking fuel (yes = 1, 0 otherwise), safe type of refuse collection (yes = 1, 0 otherwise), building of school project (yes = 1, 0 otherwise), rehabilitation of school (yes = 1, 0 otherwise), building of health facility (yes = 1, 0 otherwise), rehabilitation of health facility (yes = 1, 0 otherwise), sanitation project (ves = 1, 0) otherwise), building of new roads (yes = 1, 0otherwise), tarring/grading of roads (yes = 1, 0otherwise), transport services (yes = 1, 0 otherwise), sinking of well/borehole (yes = 1, 0 otherwise), piping of water (yes = 1, 0 otherwise), rehabilitation of pipe water (yes = 1, 0 otherwise), agriculture input on credit (yes = 1, 0 otherwise), agricultural inputs readily available (yes = 1, 0 otherwise), buyer of agriculture produce (yes = 1, 0 otherwise), availability of extension services (yes = 1, 0otherwise), veterinary services (ves = 1, 0 otherwise), consumer goods now available (yes = 1, 0 otherwise), employment opportunities available (yes = 1, 0otherwise), (ves = 1, 0 otherwise), more people owning houses (yes = 1, 0 otherwise), police services now available (yes = 1, 0 otherwise), credit facility now being provided (yes = 1, 0 otherwise), electrification (yes = 1, 0 otherwise), rehabilitation of electric facility (yes = 1, 0 otherwise), reforestation (yes = 1, 0 otherwise), rural area (yes = 1, 0otherwise), household size, age (years), North East (ves = 1, 0 otherwise), North West (ves = 1, 0) otherwise), North Central (yes = 1, 0 otherwise), South East (yes = 1, 0 otherwise), South West (yes = 1, 0 otherwise), Monogamy (yes = 1, 0 otherwise), Polygamy (yes = 1, 0 otherwise), Divorced/separated (yes = 1, 0 otherwise), Asset index, Gender (male =1,  $\frac{1}{2}$ 0 otherwise) and tertiary education (yes = 1, 0otherwise).

# 3. Results

#### Income shocks experienced by households

The different form of income shocks experienced by the households, presented against

their socio-economic characteristics are contained in tables 1. It shows the distribution of income shocks experienced by the households across the six geopolitical zones (GPZ) and economic sectors in Nigeria. It shows that 50.75 percent of the respondents in North East did not experience any shock, which is also the highest in all the zones. South West zone has the next highest value of 41.10 percent. In the rural sector, 35.45 percent of the respondents did not experience any shock, which can be compared with 42.99 percent for urban sector. In the combined data, 37.17 percent of the respondents did not experience any shock.

The table further shows that across the GPZs and sectors, the most commonly experienced shocks include not able to afford agricultural input prices, agricultural inputs not available, hard economic times/economic decline, lack of capital to start or expand agricultural production, low agricultural production, lack of employment/job opportunities and prices of commodities too high. Also, the least experienced shocks include delayed payment of gratuities, cultural/religious shocks, irregular payment of pension, too much competition and retrenchment/redundancy.

Table 1: Percentage	distribution of	respondents'	shocks across	geopolitical	zones and	sectors in	Nigeria
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Shocks experienced	NW	NE	NC	SE	SW	SS	Rural	Urban	All
No shock	25.06	50.75	38.45	24.58	41.10	31.80	35.45	42.99	37.17
Cannot afford agricultural input prices	23.76	18.15	17.82	20.74	15.28	29.58	21.80	16.35	20.56
Agricultural inputs not available	15.00	8.76	10.53	4.96	3.41	2.15	8.55	3.77	7.46
Low agricultural production	5.60	3.27	4.39	3.44	2.43	2.12	3.99	1.67	3.46
Drought	0.72	0.78	0.63	0.33	0.34	0.04	0.54	0.34	0.50
Lack of adequate land	1.02	0.95	0.29	3.05	0.23	1.09	1.14	0.59	1.02
Low prices for agricultural produce	1.89	0.65	2.24	1.69	2.94	1.49	1.98	0.90	1.74
Lack of market/buyers	0.74	0.46	0.86	1.93	1.70	1.32	1.09	1.12	1.10
Lack/loss of cattle/oxen due to disease	0.62	0.30	0.21	0.40	0.11	0.11	0.33	0.10	0.28
Lack of capital to start or expand agricultural									
production	4.55	3.12	4.25	7.09	2.68	3.88	4.40	2.78	4.03
Lack of capital to start or expand own									
business	1.62	1.28	2.78	5.08	4.05	2.92	2.38	4.14	2.78
Lack of credit to start or expand agricultural									
production	0.70	0.97	0.79	0.84	1.20	0.68	0.88	0.90	0.88
Lack of credit facilities to start or expand									
own business	0.71	0.54	0.85	1.42	1.32	1.19	0.92	1.11	0.96
Lack of employment/job opportunities	2.30	1.74	2.75	7.54	2.91	7.65	3.72	4.26	3.84
Salaries/wage too low	2.17	0.59	2.48	1.65	1.66	1.96	1.29	2.83	1.64
Retrenchment/redundancy	0.07	0.03	0.20	0.26	0.20	0.08	0.09	0.27	0.13
Prices of commodities too high	3.08	2.11	2.29	2.72	3.92	1.77	2.46	3.17	2.62
Hard economic times/economic decline	7.96	4.09	5.74	8.61	9.34	7.03	6.36	8.57	6.86
Business not doing well	0.62	0.45	0.92	1.74	2.15	1.72	1.02	1.85	1.21
Low profit	0.88	0.54	0.58	0.94	1.99	0.71	0.81	1.34	0.93
Too much competition	0.21	0.12	0.29	0.12	0.33	0.07	0.17	0.26	0.19
Cultural/religious reasons	0.05	0.04	0.04	0.01	0.03	0.00	0.03	0.04	0.03
Irregular payment of pension	0.04	0.02	0.19	0.45	0.28	0.20	0.13	0.33	0.18
Delayed payment of gratuities	0.06	0.03	0.05	0.14	0.06	0.08	0.06	0.07	0.06
Others	0.57	0.26	0.39	0.28	0.34	0.34	0.39	0.24	0.36

Source: Author's computations from the Core Welfare Indicator Questionnaire (CWIQ) Survey Data 2006

Specifically, 29.58 percent and 23.76 percent of the respondents from South South and North West GPZs indicated inability to afford prices of agricultural inputs as a major shock that had promoted poverty. In addition, 15.00 percent of the respondents in North West, 10.53 percent in the North Central and 8.76 percent in the North East indicated non-availability of agricultural inputs as the major shock experienced. These values constitute the highest proportions across the zones. In the rural sector, 21.80 percent and 8.55 percent could not afford agricultural inputs, respectively.

The results further indicate that while low agricultural production was mostly reported in the northern zones, lack of market/buyers, lack of capital to start or expand agricultural production, lack of capital to start or expand own business, lack of credit facilities to start or expand own business, lack of employment/job opportunities, hard economic times/economic decline and business not doing well were reported most in the zones from the south. Across the sectors of the economy,

#### Determinants of shock exposure

Table 2 shows the results of the Probit regression to determine the factors influencing shock exposure. The Likelihood Ratio Chi-Square value is statistically significant (p<0.01). This shows that the model produced a good fit for the data. Many of the included parameters are statistically significant (p<0.05). Specifically, households that sometimes have problems meeting their food needs have significantly lower probability of experiencing shocks (p < 0.01). This is because food is basic need for everybody. Also, those households that indicated having problems with payment of children's school fees have significantly lower probability of experiencing shocks. The households that have problem with payment of school fees have significantly higher probability of experiencing shocks (p<0.01). Those that indicated problem with payment of utility bill have significantly lower probability of experiencing shocks (P<0.01).

The households that used improved materials for the floor of their houses have significantly lower probability of experiencing shocks (p<0.01). Also, the households that are resident in flats, duplex or a whole house and those with access to improved drinking water sources have significantly lower probability experiencing shocks (P<0.01). Similarly, access to improved cooking fuel and toilet have significantly lower probability of experiencing shocks (p<0.01).

Table 2: Probit Regression Results of the Determinants of Shock Exposure
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Variables	Coefficients	t-	Mean
Food problem	3371284***	-21.30	.8253614
School fees problem	1003013***	-5.99	.8337515
House rent problem	.1941164***	10.44	.8738567
Utility problem	151428***	-9.46	.8108514
Health bill problem	005453	-0.39	.7834375
Materials of the roof	00116	-0.08	.6454923
Materials of the wall	0088784	-0.62	.4278944
Materials of the floor	0571622***	-4.35	.5555644
Type of housing unit	0585466***	-5.23	.3411127
Improved drinking water	0383306***	-7.98	.8022356
Problem with drinking water	.0202815	1.53	.8342294
Toilet	0922786***	-9.06	.5299693
Electricity	1258705***	9.38	4335364
Cooking fuel	- 1860918***	-11.12	1653192
Type of refuse collection	- 0189912	-0.68	0342905
Building of school	- 1286696***	-9.85	2163368
Rehabilitation of school	0574952***	4 51	2699563
Building of health facility	- 0691322***	-4.22	123767
Rehabilitation of health	0691322	-4.22	1402021
Conitation	0091322	-1.31	1146601
Saintation	0029482	-0.18	.1140001
Building of new roads	.0134982	0.70	.0779535
Tarring/Grading of roads	00/288/	-0.46	.1280948
Transport services	0007769	-0.04	.0969374
Sinking of well/borehole	0455199***	-3.62	.2015346
Piping of water	.0034884	0.13	.0388307
Rehabilitation of pipe water	.0337656	1.10	.029737
Agriculture input on credit	1350295***	-3.82	.0225284
Agricultural inputs readily	1404852***	-5.33	.045256
Buyer of agriculture produce	0734263***	-4.40	.140056
Availability of extension	0389538	-1.16	.0266438
Veterinary services	.0687996***	2.59	.0399724
Consumer goods now	0411177***	-2.71	.1723419
Employment opportunities	0826801***	-2.71	.0294317
More people owning houses	0229253	-1.62	.1760059
Police services now available	.0107068	0.63	.1180055
Credit facility now being	1016799***	-2.54	.0164881
Electrification	.0006792	0.04	.1088853
Rehabilitation of electric	.0440585**	2.17	.0734796
Reforestation	.0528063	1.41	.0175103
Household size	.0008664	0.48	4.953377
Age	000259	-0.78	47.46374
North East	0162383	-0.79	.1469725
North West	6030676***	-31.99	.244255
North Central	- 1900136 ***	-10.27	1492559
South East	2689677 ***	13.03	1225723
South West	- 173503 ***	-9.63	1778645
Monogamy	0205809	0.92	069736
Polygamy	- 0135351	-1.04	5995725
Divorced/separated	.0535271**	2.30	.1421668
Asset index	- 2990758***	-38.67	9.64e-07
Gender	0038449	0.18	8644311
Tertiary education	.0262002	1.62	.1090446
$\frac{\text{Constant}}{\text{LR chi}^2(53)} =$	1.078803*** Pseudo P <sup>2</sup> =	25.80	
LK CIII2(33) =	rseudo K =	1	

Note: \*\*\* statistically significant at 1 percent, \*\* statistically significant at 5 percent

Source: Author's computations from the Core Welfare Indicator Questionnaire (CWIQ) Survey Data 2006

However, connection of house to electricity increases the probability of experiencing shocks (p<0.01). This is a reflection of the erratic nature of electricity supply, that can even generate some other forms of shocks to the households.

On development projects, the results show that those that benefited from building of schools have significantly lower probability of experiencing shocks (p<0.01). However, those that benefited from rehabilitation of schools have significantly higher probability of experiencing shocks (p<0.01). Also those that benefited from building of health facilities and sinking of borehole have significantly lower probability of experiencing shocks (p<0.01). Our results also show that those households that benefited from agricultural inputs on supply, agricultural input on credit and buyers of agricultural produce significantly reduce probability of experiencing shocks (p<0.01). Similarly, households that benefited from available consumer goods, employment opportunities and credit facilities have significantly lower probability of experiencing shocks (p<0.01). However, those that benefited from veterinary services and electricity service rehabilitation have significantly higher probability of experiencing shocks (p<0.01).

Furthermore, the estimated parameters for North-East, North-West, North-Central and South West show that residing in those zone significantly reduces the probability of experiencing shocks (p<0.01). However, residence in South-East increases the probability of experiencing shocks. Those that were divorced or separated have higher probability of experiencing shocks (P<0.01). Also, as the asset index increases, the probability of experiencing shocks decreases significantly (p<0.01).

# Shock coping methods by the households

The coping methods of households are presented in table 3. It shows that the highest proportion of households in North East (22.45 percent) and South East (17.30 percent) depended on piece work on farms belonging to other households. Engagement in other piece works was used as a coping method by 17.17 percent of the households in the North East, 15.59 percent in the North West and 13.96 percent in the South South. Substitution of ordinary meals with fruits, reduction in the number of meals and informal borrowing are largely used by households from southern zones. Specifically, 20.01 percent, 20.84 percent and 18.78% of households in the South East, South South and South West zones respectively depended on reducing the number of meals to cope with income shocks. These values can be compared with 10.49%, 8.23% and 16.40% for North West, North East and North Central respectively. It should also be noted that sale of asset was largely used by zone from the north. Precisely, 13.68 percent of the households in North West and 7.63 percent in North East used this method.

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Coping methods	NW	NE	NC	SE	SW	SS	Rural	Urban	All
None	5.65	7.62	13.47	9.55	5.84	4.49	7.12	9.35	7.63
Piece work on farms belonging to									
other households	15.59	22.45	11.54	17.30	4.90	15.93	17.02	8.25	15.02
Other piece works	15.59	17.17	11.22	4.88	10.18	13.96	13.31	10.94	12.77
Working on food-for-work									
programme	1.08	2.93	1.37	1.44	1.03	3.29	2.08	1.57	1.96
Relieve food, free food from government/other bodies	1.14	1.09	0.53	0.75	0.92	0.33	0.82	0.81	0.82
Eating wild food only	1.50	1.94	2.64	2.85	5.44	0.86	2.55	2.52	2.54
Substituting ordinary meals with fruits	5.73	2.93	6.65	9.76	6.91	6.74	5.90	6.60	6.06
Reducing number of meals	10.49	8.23	16.40	20.01	18.78	20.84	14.14	18.47	15.13
Reducing other household items	5.56	3.89	8.95	4.50	6.61	5.14	5.45	6.31	5.65
Informal borrowing	8.94	6.75	7.49	9.19	12.96	9.49	8.68	10.18	9.02
Formal borrowing in cash or kind	1.09	1.53	1.86	0.99	1.77	1.06	1.15	2.31	1.42
Church charity	0.10	0.16	1.11	0.56	0.80	0.56	0.44	0.80	0.52
Withdrawing children out of school	0.23	0.46	0.41	1.44	0.24	0.65	0.48	0.73	0.53
Sale of assets	13.68	7.63	1.37	1.49	0.58	0.87	5.04	2.59	4.48
Petty trading	3.66	6.57	5.74	8.39	9.30	6.01	6.39	7.48	6.64
Asking from friends, neighbors,									
relatives,	9.01	7.22	7.78	6.22	12.38	7.63	8.11	9.47	8.42
Begging from the street	0.46	0.37	0.17	0.13	0.14	0.11	0.24	0.22	0.24
Others	0.50	1.08	1.30	0.56	1.22	2.03	1.07	1.39	1.14

Table 3: Percentage distribution of respondents' shock coping methods across geopolitical zones and sectors in Nigeria

Source: Author's computations from the Core Welfare Indicator Questionnaire (CWIQ) Survey Data 2006

In the rural sector, 17.02 percent of the households depended on piece work on other people's farms. This can be compared with 8.25 percent for the urban sector. Similarly, 13.31 percent of rural dwellers depended on other piece works, as against 10.94 percent for urban. Reduction of the number of meals was used by 18.41 percent of urban households, as against 14.14 percent for rural. Informal borrowing was also used by 10.18 percent of urban households, which can be compared with 8.68 percent for rural. In the rural sector, 5.04 percent of the respondents sold other assets in order to cope with income shocks, while only 2.59 percent used this in urban. Petty trading was used by 7.48 percent and 6.39 percent of the respondents from urban and rural sectors, respectively. Asking from friends, neighbors and relatives was used by 9.47 percent of the households in urban sector and 8.11 percent of those from the rural areas.

## 4. Recommendations

Understanding the correlates of shock exposure is vital for dealing with rising poverty in Nigeria. This is very paramount because of the different hardships that recent economic reforms have brought upon the people. The paper probed into different forms of shocks that households have faced with the goal of determining the characteristics the shock-exposed and their coping methods. The findings have shown that majority of Nigerian households have experienced one form of shock or the other. This further confirms that issue of shocks should be taken seriously because affected households have linked them to severe welfare losses. Majority of the households were affected by sudden rise in the prices of agricultural input and their scarcity. Government therefore needs to put in place appropriate mechanism for ensuring timely provision of agricultural inputs. The issue of diversion and allocation of agricultural inputs that are meant to be used by farmers to unintended beneficiaries should be addressed.

Also, there is the need for government to implement development programmes that can be of tremendous benefits to the people. The results show that provision of improved drinking water, improved toilet, building of health facility, sinking of well/borehole, agricultural inputs on credit agricultural inputs readily available, buyer of agriculture produce, consumer goods, employment opportunities and credit facilities significantly reduced the probability of experiencing shocks. This implies that development efforts that can be channeled more into those areas will go a very long way in assisting households to be less susceptible to shock exposure.

Also, government should ensure provision of adequate environment for shock reduction in the South Eastern part of the country. It should be noted that at the time of collecting the data, the problems of Niger Delta militants and oil pipe vandalization were prominent. Although the militants have been given amnesty by the government, Boko Haram Islamic Sect is presently troubling the northern part of the country. This implies that if recent data were available, the picture might be quite different. It was also found that those that divorced/separated have higher probability of experiencing shocks. Ensuring workability of marriages by religious or cultural norms is therefore vital for reducing exposure to shocks and its impacts.

It was found that the poorest among the people have higher probability of being exposed to shock. Also, a good number of the people were selling their assets in order to reduce the impact of shocks. There is the need for government to provide adequate social protection to cater for the vulnerable poor in the event of shocks. This becomes so pertinent because out of the coping options that were reported, very few of the affected people were able to receive food aids.

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4/8/2012