



HEA Outcome Analysis Technical Report	COUNTRY :	Nigeria
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Date of the analysis: 10th – 13th **October 2016**
Period covered by the analysis : September 2016 – August 2017

SUMMARY

The consumption year covered by the current analysis is **September 2016 – August 2017** for seven livelihood zones, detailed below.

(North West Millet & Sesame LZ (MAS), North West Cotton, Groundnuts & mixed Cereals LZ (CGC), Hadejia Valley Mixed Economy LZ (HVM)), North West Sorghum, Cowpeas and Groundnuts LZ (SCG), North West Millet, Cowpeas and Groundnuts LZ (MCG), North Central Maize, Sorghum and Cotton LZ (MSC) and North East Millet, Cowpeas and Sesame LZ (MCS).

Official data monitoring on crop production and prices was used for the definition of the current year problem (projection estimates on crop production and prices by Agricultural Development Programme). Assumptions for changes in production and prices were made in consensus amongst the workshop participants, based on their field experience.

The Outcome Analysis (OA) was conducted in Abuja by the HEA Working Group from 10th -13th October, 2016 for the seven livelihood zones of Northern Nigeria mentioned above. There were participants from Government institutions and NGOs under the technical lead of Save the Children. The October analysis aims to understand the changes in households' access to food and income for September 2016 to August 2017 consumption year. This provides information prior to lean period of the consumption year.

The analysis shows that the very poor households in MAS and MCS livelihood zone would likely face survival deficits of 2% & 14% respectively, the very poor in MAS, HVM and MCS livelihood zone would likely face a livelihood protection deficit of 10%, 4% & 10% respectively, the poor household also in MAS livelihood zone will likely face a livelihood protection deficit of 2%, while the remaining wealth groups across the LZs are not expected to face any deficit. Households not facing deficits would be able to access food and income to live above the survival and livelihood protection thresholds for the projected period.

Households facing survival deficit would need urgent intervention/support in order to save lives during the deficit period, while households facing livelihood protection deficit would also need support to protect their existing livelihood assets to prevent the use negative coping strategies and falling to survival deficit which is life threatening.

Summary of Outcome Analysis Results: Wealth Groups/Livelihood Zones Facing Deficits							
	MAS	CGC	HVM	SCG	MCG	MSC	MCS
Very Poor	SD= 2% LPD = 10%	No deficits	LPD= 4%	No deficits	No deficits	No deficits	SD= 14% LPD= 10%
Poor	LPD= 2%	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits
Middle	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits
Better Off	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits

I. LIVELIHOOD ZONES DESCRIPTION

The seven livelihood zones are primarily agricultural based and a variety of rain-fed crops suited to drylands areas including millet, sorghum, maize, rice, cowpeas, groundnuts, sesame, cotton as well as soybeans are grown. Rain-fed agriculture is carried out during the single rainy season which runs from April/May to October. The peak months of rainfall are June to August. In the dry season, food crops and market vegetables are grown on low lying river flood plains (or *fadama*) either through irrigation or flood retreated agriculture. The main period of harvest is from September to November. The dry-season harvest is March. In all the zones, livestock production supplements agriculture.

The Northwest region accommodates two wide belts of dominant staple cereals, millet and sorghum. The other common associated cash crops that further distinguish the local economy are cowpeas, which are grown in surplus; groundnuts; cotton; and sesame. The North West **Millet, Cowpeas and Groundnuts LZ (MCG)** and the North West **Sorghum, Cowpeas and Groundnuts LZ (SCG)** are a mix of food and cash crops, with associated husbandry of sheep, goats, and cattle. These areas are at the heart of the groundnut cultivation for which northern Nigeria is particularly known. The longstanding cash crops of the North West **Cotton, Groundnuts, and Mixed Cereals LZ (CGC)** are groundnuts, cotton and soya beans. All are Rain-fed.

In the **Hadejia Valley Mixed Economy LZ (HVM)** a variety of crops is grown in drylands as well as the irrigated areas. Rainy season cultivation of drylands centers on maize, millet, rice, sorghum, and cowpeas, while irrigation or residual moisture in the dry season allow extended cultivation of food crops such as rice, maize and valuable market vegetables like peppers, onions and tomatoes on low lying river flood plains (i.e., *fadama*). Fishing which happens throughout the year in the Hadejia Valley is a significant source of cash income.

The far northern zone of North West **Millet & Sesame LZ (MAS)**, in the Sahel savanna ecological belt, generally features good conditions for millet and sorghum, as in the Sudan savanna belt. In this relatively dry ecosystem, yields tend to be lower than further south. Cowpeas are important, and sesame is a successful cash crop, although many farmers cultivate groundnuts more. Unlike other livelihood zone, there is very little *fadama* land here, and vegetables are not common cash earners.

The Nigerian side of the Lake Chad within which the North East **Millet, Cowpeas and Sesame LZ (MCS)** is located is a semiarid zone but particularly well suited to millet and cowpeas production, the cropping season involves irrigation and rain fed agriculture. Although livestock production is an important secondary activity in this zone, small ruminants are relatively more important here than cattle.

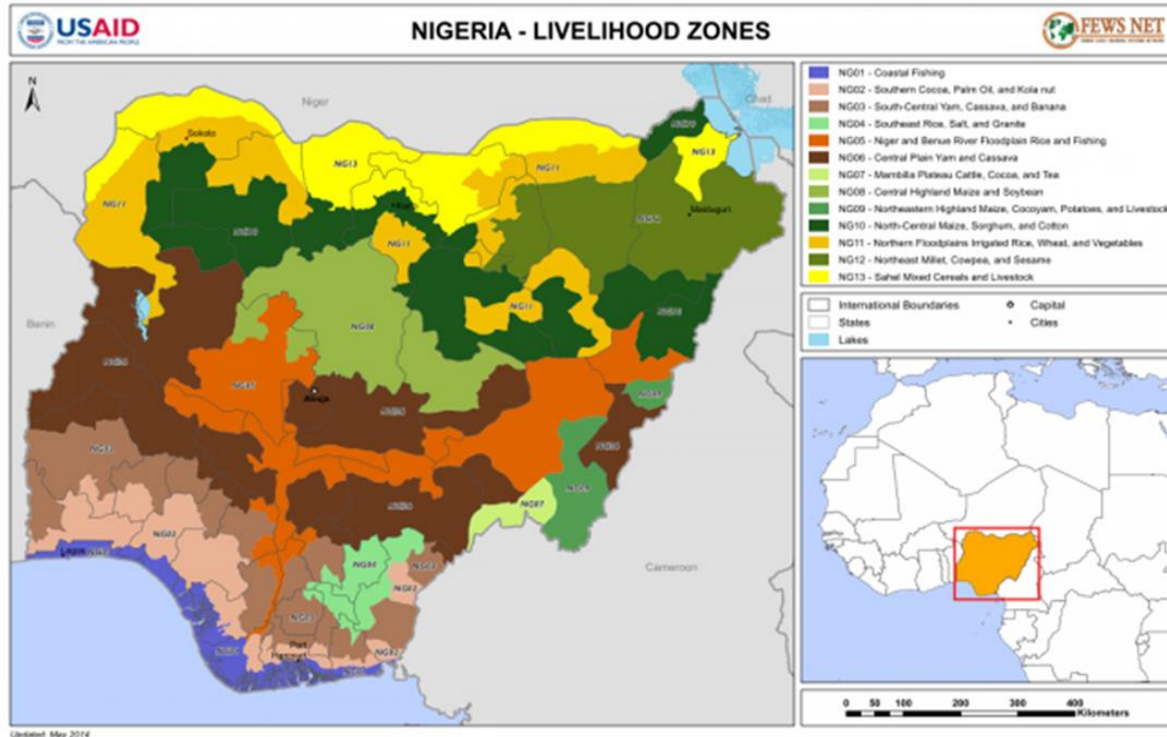
The North Central **Maize, sorghum and Cotton LZ (MSC)**, generally provides a good condition for maize, sorghum and cotton. Rice and cowpeas can be considered as cash crops in this zone, but dry season rice and vegetables are mainly grown for cash.

The reference year is not the same for all the livelihood baselines as outlined in the table below:

Livelihood Baseline	Reference Year
Millet & Sesame LZ (MAS)	Sept 2009 – August 2010
Cotton, Groundnuts & mixed Cereals LZ (CGC)	Sept 2011 – August 2012
Hadejia Valley Mixed Economy LZ (HVM)	Sept 2010 – August 2011
Sorghum, Cowpeas and Groundnuts LZ (SCG)	Sept 2012 – August 2013

Millet, Cowpeas and Groundnuts LZ (MCG)	Sept 2012 – August 2013
Millet, Cowpeas and Sesame LZ (MCS)	Sept 2012 – August 2013
Maize, Sorghum and Cotton LZ (MSC)	Sept 2012 – August 2013

¹ Refer to seasonal calendars in baseline reports for further details on seasonality.



New Livelihood Zone Map

II SCENARIO DEVELOPMENT/ PROBLEM SPECIFICATION

A problem specification is the translation of a shock or other change into economic consequences at household level. It allows one to mathematically link the change (positive or negative) to each relevant livelihood strategy. The process of developing problem specifications is one of critically examining the effects of each type of change on each source of food, income and expenditure. There can be quite a large number of these sources, not all of which are equally important, and it is therefore useful to identify the key sources for each wealth group and each livelihood zone. A key source (or ‘key parameter’) is defined as one that contributes significantly to total food or cash income¹, such that a reduction in access to that one source may have a significant effect on total access.

¹ A key parameter is here defined as a source of food or income that contributes at least 10% of one wealth group’s total food or income or at least 5% for each of two wealth groups’ total food or income.

The scenario developed uses official government monitoring data on crop production and prices for the definition of the current year problem specification. Where official data was not available, assumptions were made based on a consensus amongst the workshop participants due to their field experience. As part of the scenario in the livelihood zones, it has been assumed that the 2017 rainy season will be normal and that agricultural labor opportunities for land preparation, planting and weeding will be stable for the remaining months of this year. The scenario developed is based on problem specification of key parameter data collected in the seven zones. All coping strategies are excluded from the scenario. Each element of the scenario analyzed can be monitored and revised as additional information becomes available. In addition, other scenarios can be analyzed if decision makers would like to understand vulnerability to different types of shock. For more details on the key parameters and their changes since the reference years, see the key parameter problem specification table at the bottom of the report.

III- PROJECTED FOOD SECURITY PROSPECTS

Crop	CGC	HVM	MAS	MCG	SCG	MSC	MCS
Maize	104	110		110	109	115	115
Millet	128	116	112	116	133	77	77
Rice	113	116		106	128	150	150
Rice 2 nd Sea		N/A					
Sorghum	114	116	129	116	116	103	103
Wheat		116					
Cowpeas	111	116	132	116	109	98	98
Cotton	81						
Soya beans	127					260	
Groundnuts	123			116	136	112	112
Sesame			223				
Pepper		80		104	97	80	
Onion		109			134	63	63
Tomato		106				181	

Decrease

Increase

Not Important

Not Available

3.1- Period covered by the analysis

The period covered by the analysis is the current consumption year which is **September 2016 – August 2017** as projected.

The Outcome Analysis started off with a training (refresher) session on key parameter data collection as well as a review of the data collection tool. The training was followed by 4 days field exercise on key parameter data collection across the seven livelihood zones, information were gotten from both Agricultural Development Programme (crop production figures and market prices). Other key parameter data were collected by the enumerators.

3.2 Projected Outcomes by Livelihood Zone and by District

The results of the OA are presented in this section. These illustrates how scenario development and problem specification are expected to impact total income for households in different wealth groups in the seven livelihoods zones. The graphs presented below shows the result of the scenario development/problem specifications for very poor and poor households for one district within each livelihood zone.

I- NG08: North West Cotton, Groundnuts and Mixed Cereals Livelihood Zone

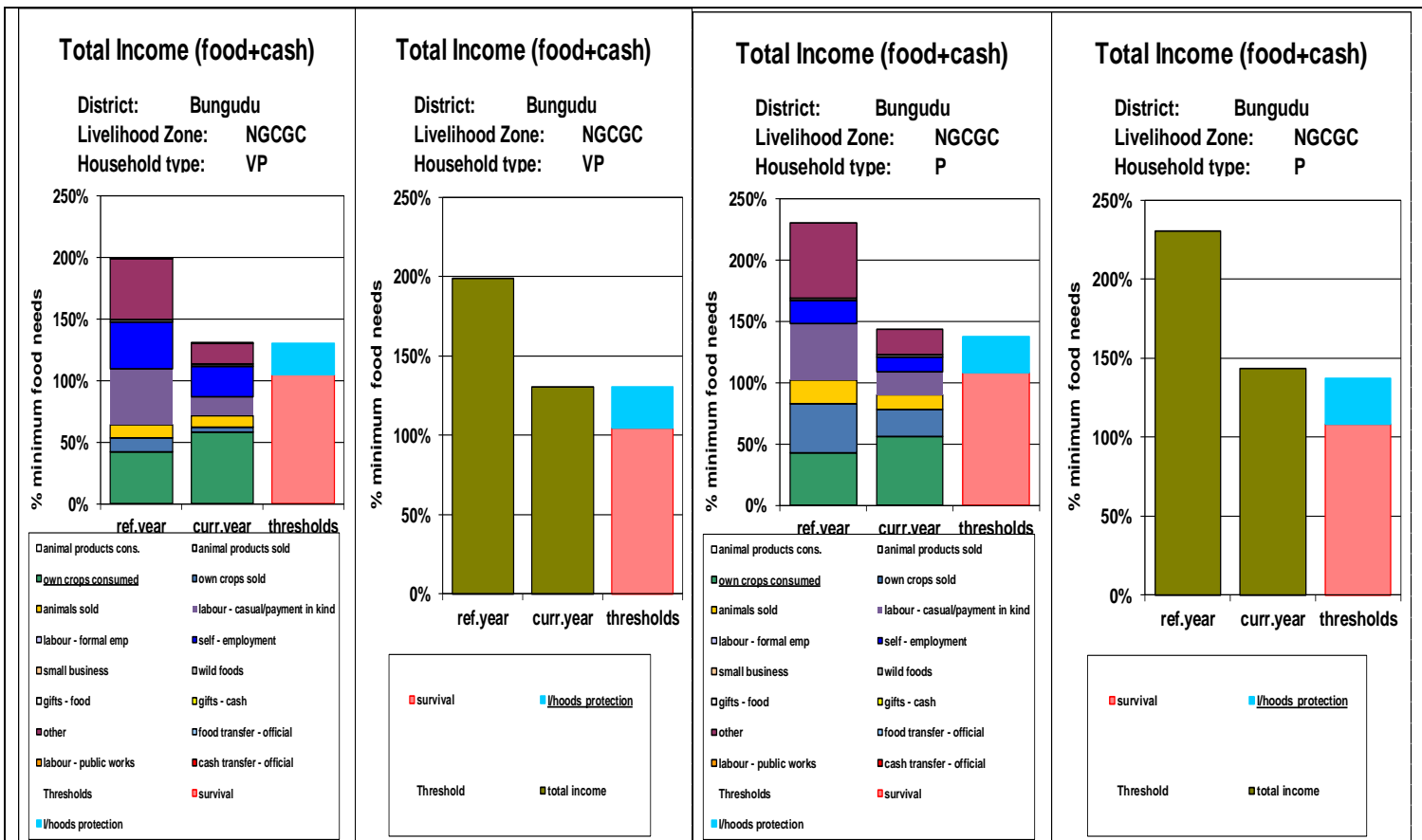
The results for the OA shows that there will be no wealth group on either survival or livelihood protection deficit in this zone. There has been a general increase in crop production, except for cotton which reduced by 19% when compared with the reference year. The reduction in cotton production is due to reduced number of cotton farmers, which is as a result of poor market/prices. There has been a decrease in livestock mostly due to cattle rustling as well as theft of small ruminants in this zone. There has also been an increase in staple food and livestock prices, the increase in price of livestock was due to animal rustling causing artificial shortages and low supply in the market and hence the increase in selling price. Wage rates; construction and agricultural labor has slightly reduced, with increase in firewood sales and income from fetching water when compared to the reference year, (see annex). The impact is more on the very poor and poor households, though with increase in crop production (increasing own crop consumed) and more sales of livestock (increased income from more animals sold) households are able to sustain their livelihood.

Cash earned from casual labor and foods earned as payment in kind were also used to stabilize the households' food sources.

The current scenario, when compared with the reference year shows that the current year total income is lower than the reference year total income though it's still above the livelihoods protection threshold.

The OA result shows a significant increase in the consumption of own crops by the very poor and poor households when compared with the reference year.

In the graph below Bungudu LGA was used but represents other LGAs (Bungudu, Gusau, Maru and Tsafe) in the Cotton, Groundnuts and Mixed Cereals Livelihood zone.



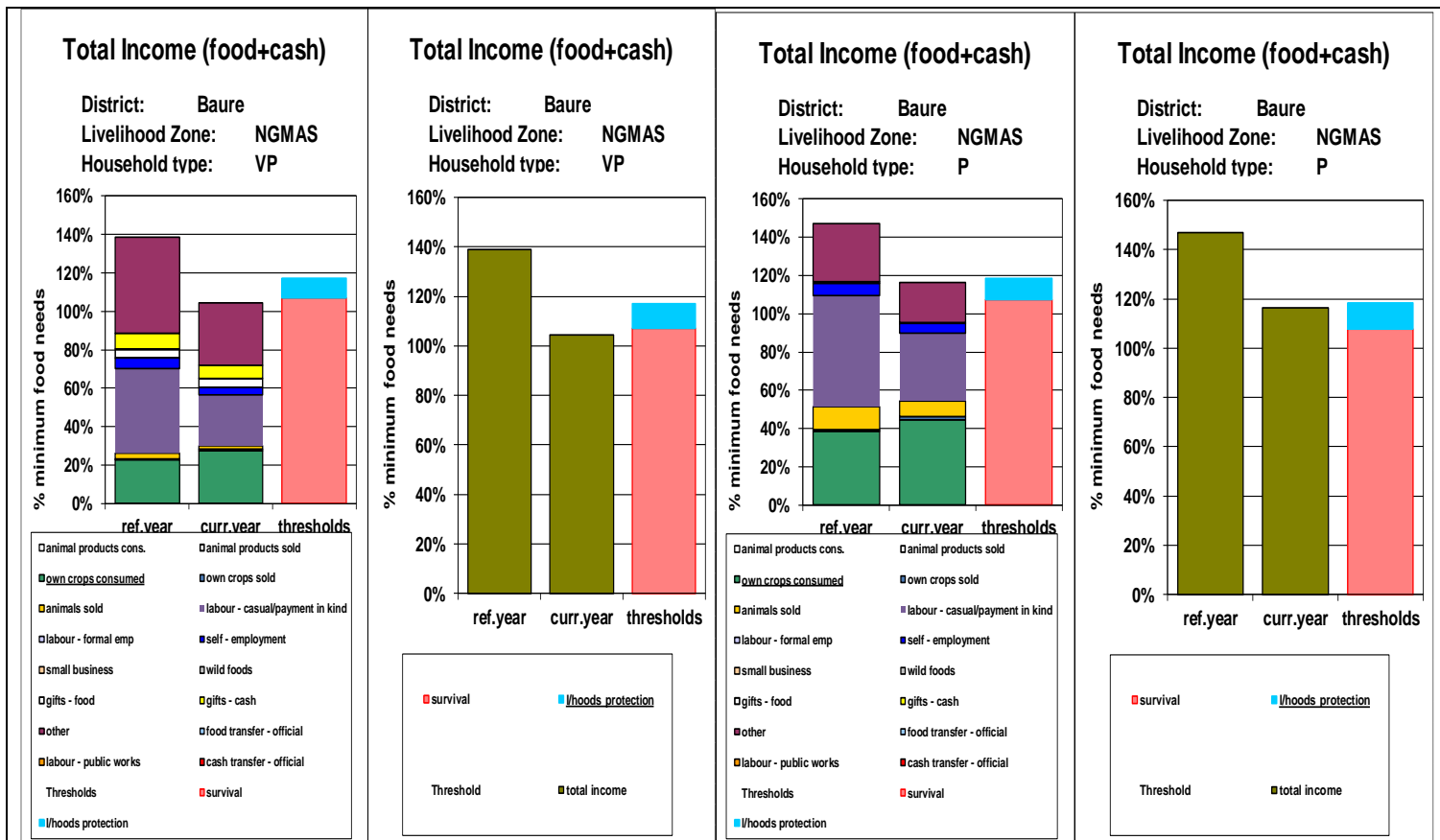
2- NG04: North West Millet & Sesame Livelihood Zone

The result for the OA shows that the very poor households would face a survival deficit of 2% and livelihood protection deficit of 10% while the poor household would face a livelihood protection deficit of 2%. Other wealth groups do not have any deficit either on survival or livelihood.

Households on survival deficit would require emergency food aid or cash to save lives while households on livelihood protection deficits would require support (cash) to protect their existing livelihoods assets such as feeds/drugs for livestock, fertilizer, etc.

Though there is an increase in own crop consumed by both the very poor and the poor household due to increased crop production, income generated from both labour and sales of livestock however has reduced significantly when compared with the reference year, contributing to a larger extent to the deficits on both survival and livelihood protection.

In the graph below Baure LGA was used but represents other LGAs (Baure, Dutsi, Daura, Mashi, Zango and Sandamu) in the Millet and Sesame Livelihood zone.



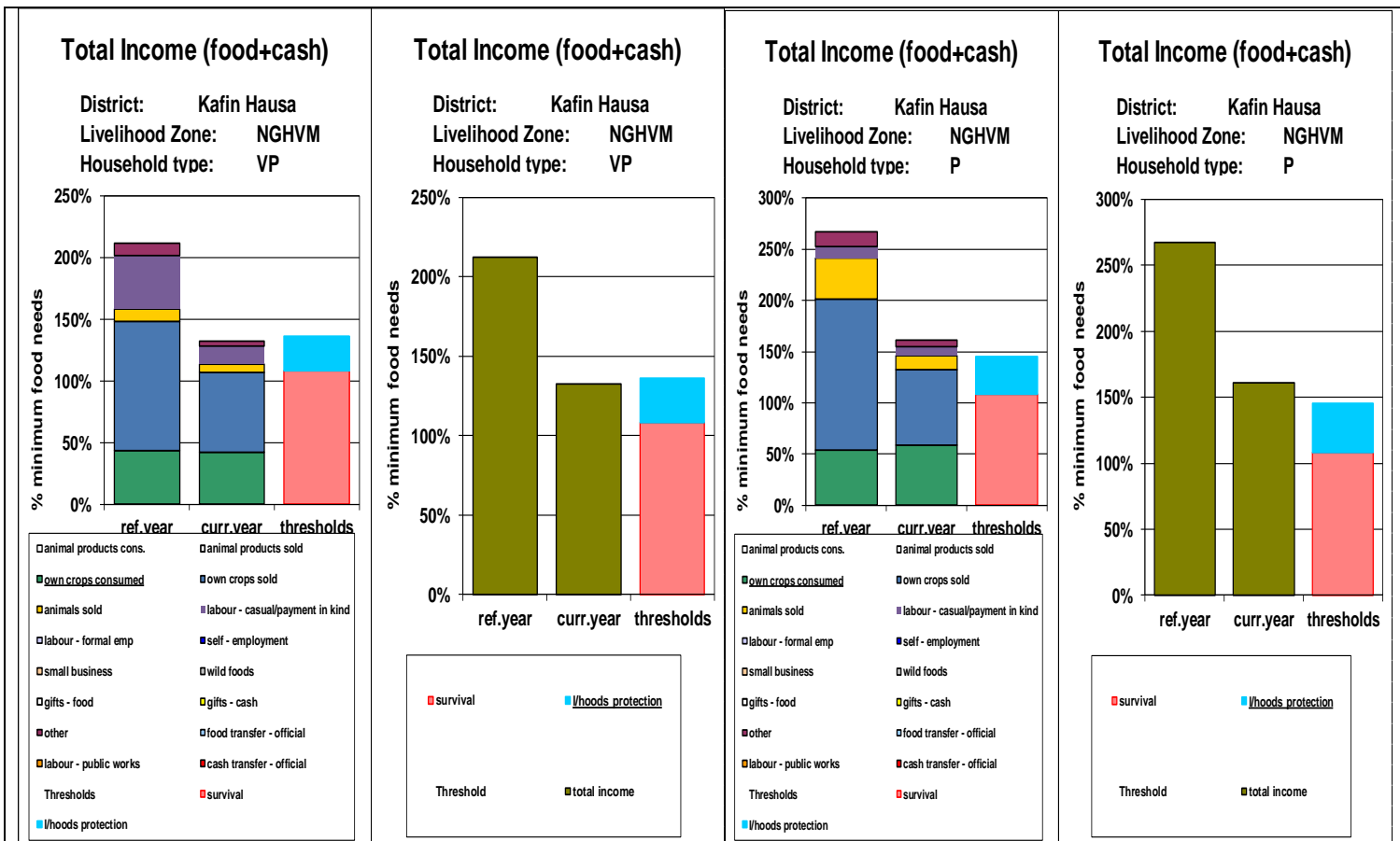
3- NGII: Hadejia Valley Mixed Economy Livelihood Zone

The results for the outcome analysis (OA) show that very poor in the Hadejia Valley Mixed Economy LZ will face a livelihood protection deficit of 4%, this means that the very poor households would require livelihood support; an intervention to protect their existing livelihoods to prevent further deficits (survival deficit).

Other wealth groups will not have deficit on either survival or livelihood protection and would not require any support.

In this LZ, the very poor's income from both local labour and sales of livestock reduced significantly as income generating activities reduced when compared to the reference year contributing to the deficit on livelihood, though the current year production activity for the poor and the very poor is better than the reference year analysis. The situation portrays a situation whereby the very poor can only meet their basic staple food needs, but will likely not have enough to maintain their assets like buying fertilizer/seedlings and other livelihood expenditures like medical/school bills.

In the graph below Kafin Hausa LGA was used but represents other LGAs (Kafin Hausa, Auyo, Guri, Kiri Kassama, Malam Madori and Kaugama) in the Hadejia Valley Mixed Economy Livelihood zone.

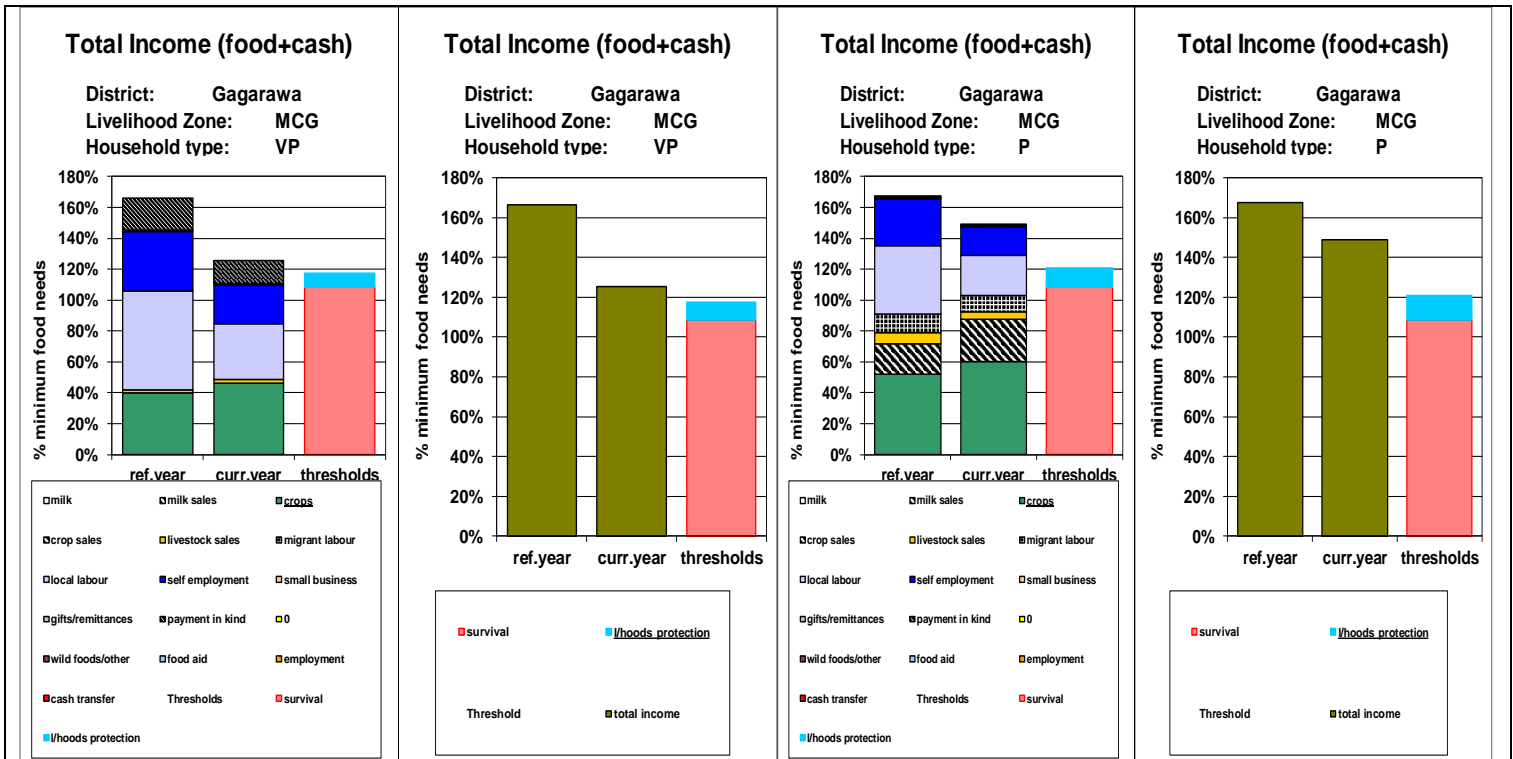


4- NG03: NW Millet, Cowpeas and Groundnuts Livelihood Zone

The results for the outcome analysis (OA) shows that there will be no survival and livelihood protection deficits for any wealth group. There is an increase in crop production in the current year with respect to the reference year, which has increase food availability from own crops as households especially the very poor and poor consume more portion of foods they grow than in the reference year. Though income from both livestock sales and labour reduced in this livelihood as well but household will still be able to sustain both their survival and livelihood needs

The result as compared to the reference year shows an overall increase in total food income from own crop, though there is a decrease in local labour, this has been balanced with increased crop production making more food available from own crop.

In the graph below Gagarawa LGA was used but represents other LGAs (Gagarawa, Buji, Jahun, Birnin Kudu, Kiyawa, Dutse, Miga and Taura) in the Millet, Cowpeas and Groundnuts Livelihood zone.



5-NG06: NW Sorghum, Cowpeas and Groundnuts Livelihood Zone

The results for the scenario analysis show that there will be no survival and livelihood protection deficits for any wealth group in this livelihood zone, this implies that no urgent support will be needed as households within this zone would be able to access both food and cash income need to survive as well as maintain livelihood assets.

Although income from labor decreased with respect to the reference year, increase in crop production slightly compensated for the shortages as households increased food consumption from own crops.

In the graph below Anka LGA was used but represents other LGAs (Anka, Bukkuyum and Gumi) in the Sorghum, Cowpeas and Groundnuts Livelihood zone.

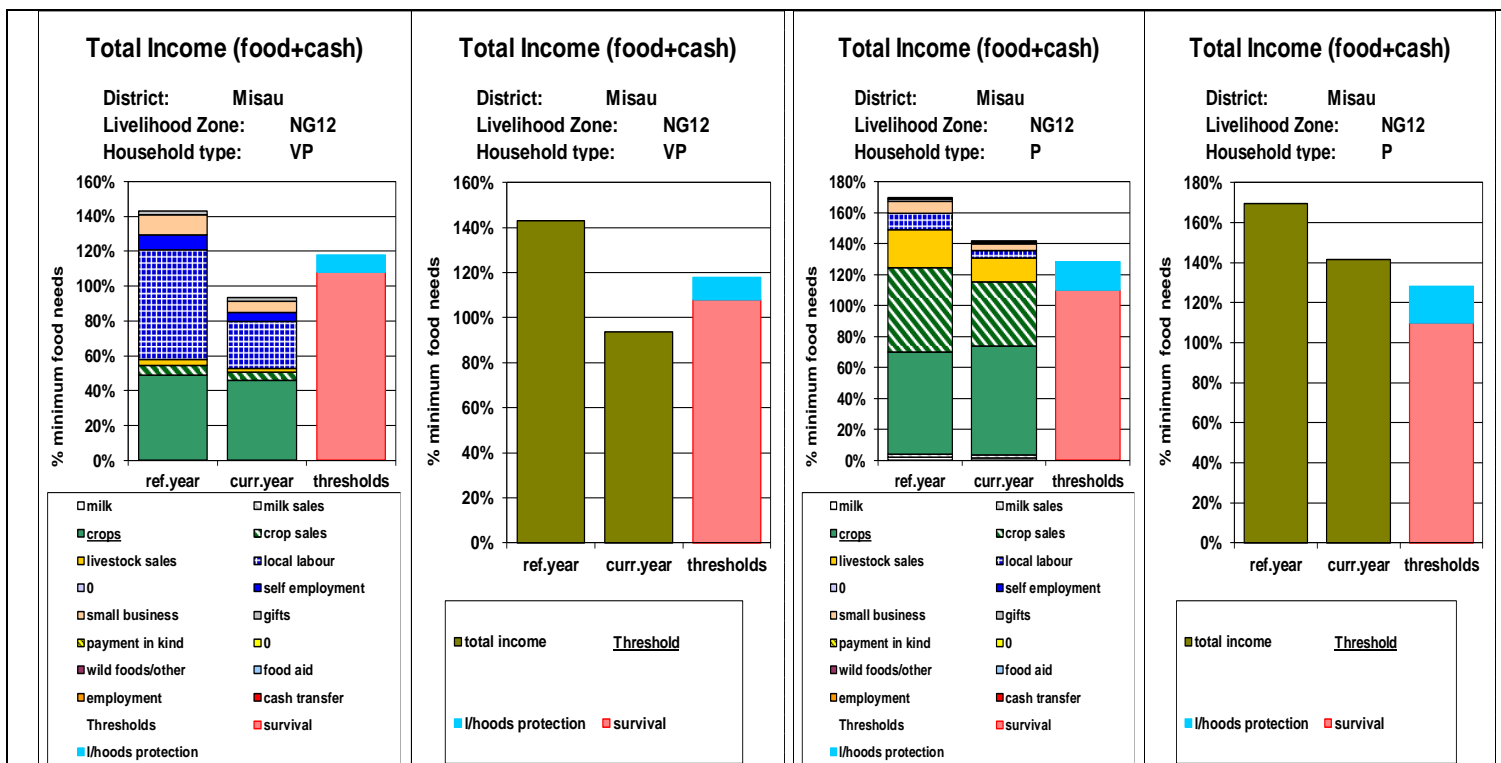


6-NG12: NE Millet, Cowpeas and Sesame Livelihood Zone

The results for the outcome analysis (OA) in this livelihood indicates that the very poor households will face survival and livelihood deficits of 14% & 10% respectively, which means that the households within this wealth group will require emergency food aid or cash to save lives as well as to protect their existing livelihoods assets to prevent further deficits (survival deficit).

There will be no survival and livelihood protection deficits for other wealth group within this zone as they would be able to access both food/cash to ensure their survival and maintain local livelihoods.

In the graph below Misau LGA was used but represents other LGAs (Misau, Katagum, Gaide, Gamawa, Darazo and Damban) in the Millet, Cowpeas and Sesame Livelihood zone.



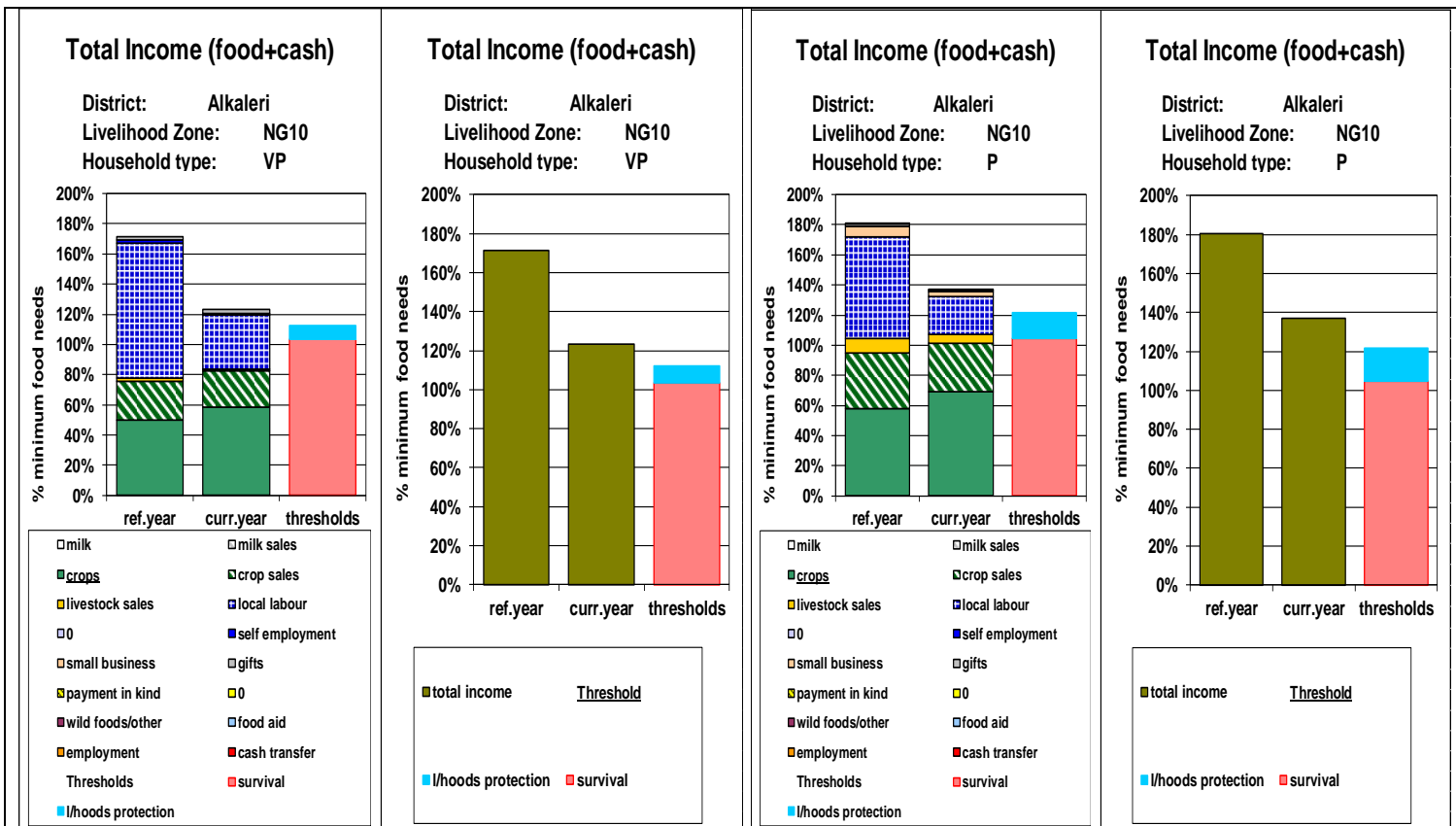
7-NG10: NC Maize, Sorghum and Cotton Livelihood Zone

The Outcome Analysis for North Central Maize, Sorghum and Cotton Livelihood Zone shows no deficit in both survival and livelihood protection threshold, hence no emergency food aid or livelihood support is needed in this zone.

There is quite an increase in crop production in MSC LZ as compared to the reference year.

Though there is an increased in own crops consumed by due to general increased in crop production, total income (food and cash) reduced significantly when compared to the reference year but this has not resulted in any deficit for the wealth groups across the zone.

In the graph below Alkareli LGA was used but represents other LGAs (Alkaleri, Bogoro, Dass, Gamjuwa, Ningi, Toro and Tafawa Balewa) in the Maize, Sorghum and Cotton Livelihood zone.



IV- SUMMARY OF THE RESULTS COMPARED WITH THE TWO THRESHOLDS

The analysis projects that the very poor wealth group in MAS and MCS LZ will face a Survival deficit of 2% & 14% respectively, the very poor in MAS, HVM & MCS also face livelihood deficits of 10%, 4% & 10% respectively and the poor in MAS a livelihood deficit of 2%.

Households facing survival deficit would need urgent intervention/support in order to save lives during the deficit period, while households facing livelihood protection deficit would also need support to protect their existing livelihood assets to prevent the use negative coping strategies and falling to survival deficit which is life threatening.

Summary of Outcome Analysis Results: Wealth Groups/Livelihood Zones Facing Deficits							
	MAS	CGC	HVM	SCG	MCG	MSC	MCS
Very Poor	SD= 2% LPD= 10%	No deficits	LPD= 4%	No deficits	No deficits	No deficits	SD= 14% LPD= 10%
Poor	LPD= 2%	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits
Middle	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits
Better Off	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits	No deficits

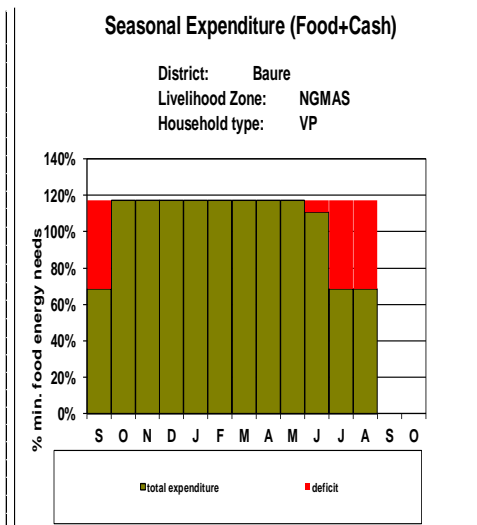
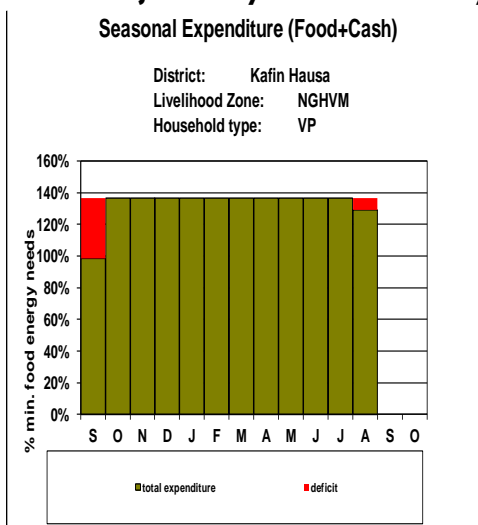
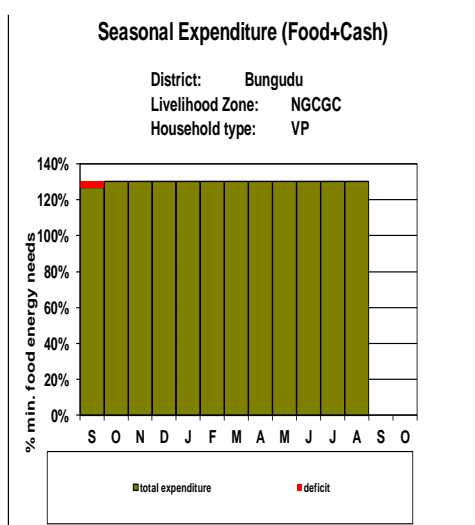
V- SEASONALITY

By combining information on total income with seasonal calendar data showing when different sources of food and cash become available, it is possible to generate projected pattern of consumption/ expenditure, by month, from **September 2016 – August 2017 as projected**. The period when households are unlikely to be able to cover their livelihood protection needs (deficit) is shown in red on a seasonal expenditure graph, but based on the analysis above and the presented graph below, the wealth groups across all livelihood zones will not have any seasonal deficits.

Cotton Groundnut & Mixed Cereals LZ

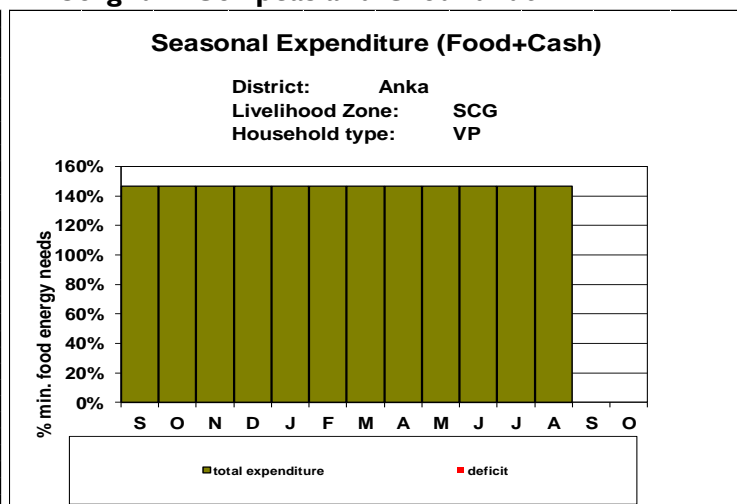
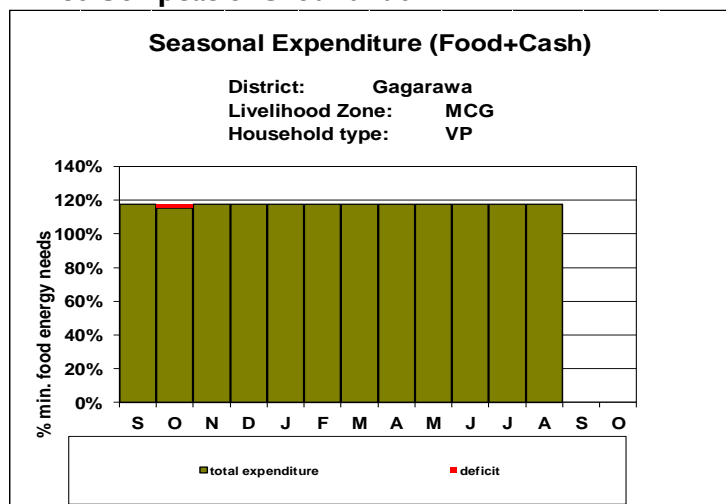
Hadejia Valley Mixed Economy LZ

Millet & Sesame LZ

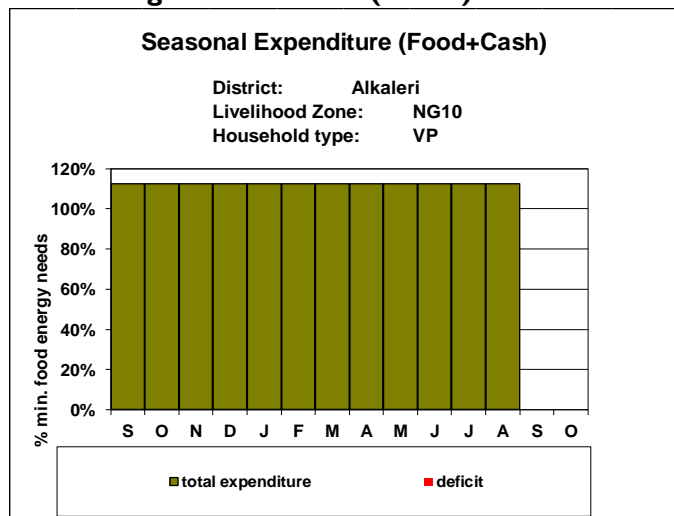


Millet Cowpeas & Groundnut LZ

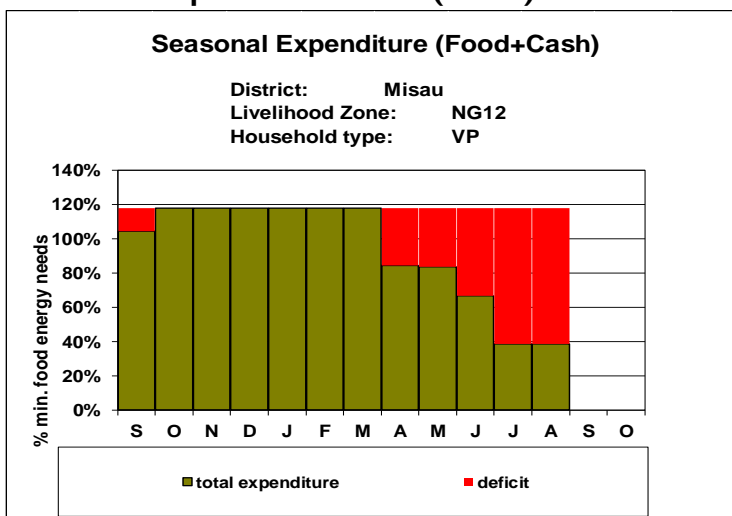
Sorghum Cowpeas and Groundnut LZ



Maize Sorghum & Cotton (NG10) LZ



Millet Cowpeas and Sesame (NG12) LZ



The seasonal expenditure graph depicts the month and timing for any form of intervention that the very poor and poor households might likely require; which is significant enough to have direct impact on their livelihood protection.

VI- RESPONSE OPTIONS AND RECOMMENDATIONS

- Livestock protection program as well as improvement in the security situation especially within CGC livelihood zone to avert rustling.
- Government support in establishing food preservation programs especially vegetables.
- A joint assessment with partners is being encouraged.
- Secondary data should be sourced from all relevant agencies and a more reliable data is used for analysis.
- All production and price data should be stored in a data base based on year and monthly collection for easy analysis by the Agriculture Development program (ADP).

CONCLUSION

The analysis shows that the very poor households in MAS and MCS livelihood zone would likely face survival deficits of 2% & 14% respectively, the very poor in MAS, HVM and MCS livelihood zone would likely face a livelihood protection deficit of 10%, 4% & 10% respectively, the poor household also in MAS livelihood zone will likely face a livelihood protection deficit of 2%, while the remaining wealth groups across the LZs are not expected to face any deficit. Households not facing deficits would be able to access food and income to live above the survival and livelihood protection thresholds for the projected period.

Households facing survival deficit would need urgent intervention/support in order to save lives during the deficit period, while households facing livelihood protection deficit would also need support to protect their existing livelihood assets to prevent the use of negative coping strategies and falling to survival deficit which is life threatening.

In the longer term, development efforts should continue to focus on assisting the very poor and the poor to secure more stable sources of income to complement crop and livestock farming.

VII- ANNEX

7.1- Table summarizing key parameters figures (problem specification)

NG08: NW Cotton, Groundnuts and Mixed Cereals Livelihood Zone

Problem Specification for NW Cotton, Groundnuts and Mixed Cereals Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	70%	171%
Goats	70%	239%
Sheep	70%	181%
Cow's Milk	100%	
Maize	104%	184%
Millet	128%	233%
Rice	113%	188%
Cowpeas	111%	261%
Soya beans	127%	192%
Sorghum	114%	200%
Groundnuts	123%	118%
Cotton	81%	-----
Agricultural labor		160%
Construction	45%	165%
Fetching water	100%	189%
Firewood sales	100%	189%
Credit	30%	-----
Self-employment	70%	-----
Components of the Livelihood Protection Basket (LPB)		
Fertilizer: Urea		179%
Staple Food (Sorghum)		302%
Inflation		143%

Legend: ---- means that price problem specification for those items was left blank in the LIAS because data were not available during the analysis. In such cases, the spreadsheet will apply automatically the problem specification for inflation (143%) to those items.

NG04: NW Millet & Sesame Livelihood Zone

Problem Specification for NW Millet & Sesame Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	90%	142%
Goats	90%	155%
Sheep	90%	142%
Cow's Milk	100%	186%
Millet	112%	
Cowpeas	132%	
Sorghum	129%	
Sesame	223%	132%
Agricultural labor	90%	167%
Construction	55%	124%
Firewood sales	100%	150%
Self-employment	80%	-----
Components of the Livelihood Protection Basket (LPB)		
Fertilizer: Urea		
Staple Food (Millet)		222%
Inflation		177%

Legend: ---- means that price problem specification for those items was left blank in the LIAS because data were not available during the analysis. In such cases, the spreadsheet will apply automatically the problem specification for inflation (177%) to those items.

NGI I: Hadejia Valley Mixed Economy Livelihood Zone

Problem Specification for Hadejia Valley Mixed Economy Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	100%	111%
Goats	110%	141%
Sheep	110%	123%
Cow's Milk	100%	141%
Maize	110%	123%
Millet	116%	267%
Rice	116%	223%
Wheat	116%	240%
Cowpeas	116%	183%
Sorghum	116%	230%
Rice irrigated	-----	-----
Pepper	80%	127%
Onions	109%	126%
Tomatoes	106%	53%
Agricultural labor	95%	137%
Construction	50%	138%
Fish sales	85%	165%
Self-employment	75%	144%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		197%
Staple Food (Maize)		370%
Inflation		158%

Legend: ---- means that price problem specification for those items was left blank in the LIAS because data were not available during the analysis. In such cases, the spreadsheet will apply automatically the problem specification for inflation (158%) to those items.

NG03: NW Millet, Cowpeas and Groundnuts Livelihood Zone

Problem Specification for NW Millet, Cowpeas and Groundnuts Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	100%	131%
Goats	100%	131%
Sheep	100%	115%
Cow's Milk	100%	142%
Sorghum	116%	176%
Millet	116%	267%
Rice	106%	223%
Cowpeas	116%	183%
Maize	110%	228%
Groundnuts	116%	183%
Pepper	104%	127%
Agricultural labor: pre-harvest	70%	125%
Construction	60%	128%
Firewood & Charcoal sales	70%	177%
Trade: livestock & dry goods	80%	119%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		245%
Labor		124%
Animal drugs		200%
Ploughing/Land rental		115%
Transport		115%
Education		125%
Medicine		106%
Tax		125%
Staple Food (Millet)		300%
Inflation		118%

Legend: ---- means that price problem specification for those items was left blank in the LIAS because data were not available during the analysis. In such cases, the spreadsheet will apply automatically the problem specification for inflation (118%) to those items.

NG06: NW Sorghum, Cowpeas and Groundnuts Livelihood Zone

Problem Specification for NW Sorghum , Cowpeas and Groundnuts Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	100%	158%
Goats	100%	186%
Sheep	100%	157%
Cow's Milk	100%	143%
Sorghum	116%	169%
Millet	133%	213%
Rice	128%	240%
Cowpeas	109%	107%
Maize	109%	172%
Groundnuts	136%	141%
Pepper	97%	-----
Onions	134%	-----
Agricultural labor: pre-harvest	70%	161%
Construction	60%	183%
Fetching Water	80%	162%
Firewood & Charcoal sales	70%	220%
Trade: livestock & dry goods	80%	105%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		171%
Labor		94%
Animal drugs		171%
Ploughing/Land rental		159%
Transport		115%
Education		111%
Medicine		220%
Tax		
Staple Food (Sorghum)		200%
Inflation		118

Legend: ---- means that price problem specification for those items was left blank in the LIAS because data were not available during the analysis. In such cases, the spreadsheet will apply automatically the problem specification for inflation (118%) to those items.

NGI0: NC Maize, Sorghum and Cotton Livelihood Zone

Problem Specification for NW Sorghum , Cowpeas and Groundnuts Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	90%	132%
Goats	90%	139%
Sheep	90%	127%
Cow's Milk	100%	189%
Maize	115%	275%
Sorghum	103%	250%
Rice	150%	208%
Millet	77%	153%
Cowpeas	98%	130%
Soya beans	260%	137%
Groundnuts	112%	246%
Onions	63%	200%
Tomatoes	181%	199%
Pepper	80%	133%
Agricultural labor: cultivation	80%	127%
Construction	60%	106%
Domestic Labor	90%	138%
Other self-employment	85%	133%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		238%
Pesticide		170%
Land rental		133%
School		127%
Medicine		143%
Animal Drugs		171%
Staple Food (Sorghum)		251%
Staple Food (Maize)		205%
Inflation		118%

Legend: ---- means that price problem specification for those items was left blank in the LIAS because data were not available during the analysis. In such cases, the spreadsheet will apply automatically the problem specification for inflation (118%) to those items.

NGI2: NE Millet, Cowpeas and Sesame Livelihood Zone

Problem Specification for NW Sorghum , Cowpeas and Groundnuts Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	93%	132%
Goats	90%	139%
Sheep	90%	127%
Cow's Milk	100%	189%
Maize	115%	
Sorghum	103%	250%
Rice	150%	
Millet	77%	153%
Cowpeas	98%	130%
Groundnuts	112%	246%
Onions	63%	200%
Agricultural labor: cultivation	80%	112%
Construction	60%	106
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		238%
School		127%
Medicine		
Staple Food (Maize)		205%
Inflation		118%

Legend: ---- means that price problem specification for those items was left blank in the LIAS because data were not available during the analysis. In such cases, the spreadsheet will apply automatically the problem specification for inflation (118%) to those items.

7.2 Table summarizing the Outcome Analysis results

Country	LZ description	Baseline	State	LGAs	Wealth Groups	% Population	Timing of Deficit	Survival Deficit	Livelihood Protection Deficit
NIGERIA	Millet & Sesame LZ (MAS)	Sept09-Aug10	Katsina	Baure, Daura, Dutsi, Mashi, Zango & Sandamu	VP	34%	Jun- Aug, 2017	2%	10%
					P	32%	No deficit	No deficit	2%
					M	19%	No deficit	No deficit	No deficit
					BO	16%	No deficit	No deficit	No deficit
	NW Cotton, Groundnuts & mixed Cereals LZ (CGC)	Sept11-Aug12	Zamfara	Bungudu, Gusau, Maru & Tsafe	VP	26%	No deficit	No deficit	No deficit
					P	26%	No deficit	No deficit	No deficit
					M	26%	No deficit	No deficit	No deficit
	Hadejia Valley Mixed Economy LZ (HVM)	Sept10-Aug11	Jigawa	Kafin Hausa, Auyo, Guri, Kiri Kassama, Malam Madori & Kaugama	VP	38%	August, 2017	No deficit	4%
					P	20%	No deficit	No deficit	No deficit
					M	23%	No deficit	No deficit	No deficit
	Maize, Sorghum and Cotton LZ (MSC)	2012-13	Bauchi	Alkaleri, Bogoro, Dass, Gamjuwa, Ningi, Toro & Tafawa Balewa	VP	30%	No deficit	No deficit	No deficit
					P	26%	No deficit	No deficit	No deficit
					M	23%	No deficit	No deficit	No deficit
					BO	21%	No deficit	No deficit	No deficit
	Millet, Cowpeas and Sesame LZ (MCS)	2012-13	Bauchi	Misau, Katagum, Gaide, Gamawa, Darazo & Damban	VP	27%	Mar- Aug, 2027	14%	10%
					P	29%	No deficit	No deficit	No deficit
					M	25%	No deficit	No deficit	No deficit
					BO	18%	No deficit	No deficit	No deficit
	Millet Cowpeas and Groundnuts LZ (MCG)	Sept12-Aug13	Jigawa	Gagarawa, Buji, Jahun, Birnin Kudu, Kiyawa, Dutse, Miga & Taura	VP	34%	No deficit	No deficit	No deficit
					P	21%	No deficit	No deficit	No deficit
					M	20%	No deficit	No deficit	No deficit
					BO	26%	No deficit	No deficit	No deficit
	Sorghum Cowpea and Groundnut LZ (SCG)	Sept12-Aug13	Zamfara	Anka, Bukkuyum & Gumi	VP	33%	No deficit	No deficit	No deficit
					P	20%	No deficit	No deficit	No deficit
M					23%	No deficit	No deficit	No deficit	
BO					24%	No deficit	No deficit	No deficit	

7.3 List of participants

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