

TECHNICAL REPORT (HEA Outcome Analysis)

COUNTRY :
Nigeria
Date of the analysis: 6th February – 9th March, 2019

Period covered by the analysis : September 2018 – August 2019

SUMMARY

The consumption year covered by the current analysis is **September 2018 – August 2019** for seven livelihood zones, listed below:

- North West Millet & Sesame LZ (MAS)
- North West Cotton, Groundnuts & mixed Cereals LZ (CGC)
- North West Sorghum, Cowpeas and Groundnuts LZ (SCG)
- North Central Maize, Sorghum and Cotton LZ (NG10)
- North East Millet, Cowpeas and Sesame LZ (NG12)

Official monitoring data on crop production and prices from Agricultural Development Programme (ADP) across the 5 states were used for the definition of the current year problem. Assumptions on changes in production and prices were made on the Problem Specification (PS) in consensus amongst the workshop participants, based on their field experience where official data does not represent the ideal situation.

The analysis shows that in (NG12) livelihood zone (Bama, Damboa, Dikwa, Gubio & Gwoza) LGA areas of Borno state, the very poor households would likely face survival deficits of 1% and a livelihood protection deficit of 16%, while in (Kalabalge, Marte & Ngala) the very poor would likely face survival deficits of 5% and livelihood protection deficits of 16%. In (NG10) Livelihood zone (Abadam and Mobbar) LGA, the very poor and the poor would likely face a livelihood protection deficit of 8% & 2% respectively. In (CGC) LZ of Zamfara state the very poor and poor would likely face livelihood protection deficits of 24% and 19% respectively. In (SCG) also, the very poor would likely face survival deficits of 4%.

Households facing survival deficit would need urgent assistance to save lives during the deficit period, while households facing livelihood protection deficit would need assistance to protect their existing livelihood assets, to prevent depletion of asset and use negative coping strategies.

Other wealth groups across these LZs are not expected to face any deficit, this implies that these households not facing deficits would be able to access food and income needed to maintain basic survival and livelihood protection needs.

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 North West **Sorghum, Cowpeas and Groundnuts LZ (SCG)** is primarily agricultural, supporting a wide variety of

rained crops including millet, sorghum, maize, cowpeas, cotton and groundnuts, as well as rice and (increasingly) soybeans. Some market vegetables are also grown during the dry season on low-lying flood plains which are called *fadama*). The **Sahel Mixed Cereals and Livestock LZ (NG13)** in northern Nigeria occupying the West to East border stretch with Niger right into lake Chad, is moderately productive supporting production of cereal crops (millet, & sorghum), legumes (cowpea, groundnut, and sesame) and cash crops (pepper and roselle) which are the primary livelihood source in this zone.

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.

The **Northern Floodplains Irrigated Rice Wheat and Vegetable LZ (NG11)** is Agro-pastoral with production of food (Millet, sorghum, maize, rice, wheat, groundnuts and vegetables) and cash crops (Sesame, pepper, and roselle) and keeping of livestock (cattle, goats and sheep) which are the main sources of food and cash income. The zone is found in the semi-arid to arid lowlands characterized by temperate climate. Fish and Gum Arabic are main natural resources, fishing which happens throughout the year in this zone is a source 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.

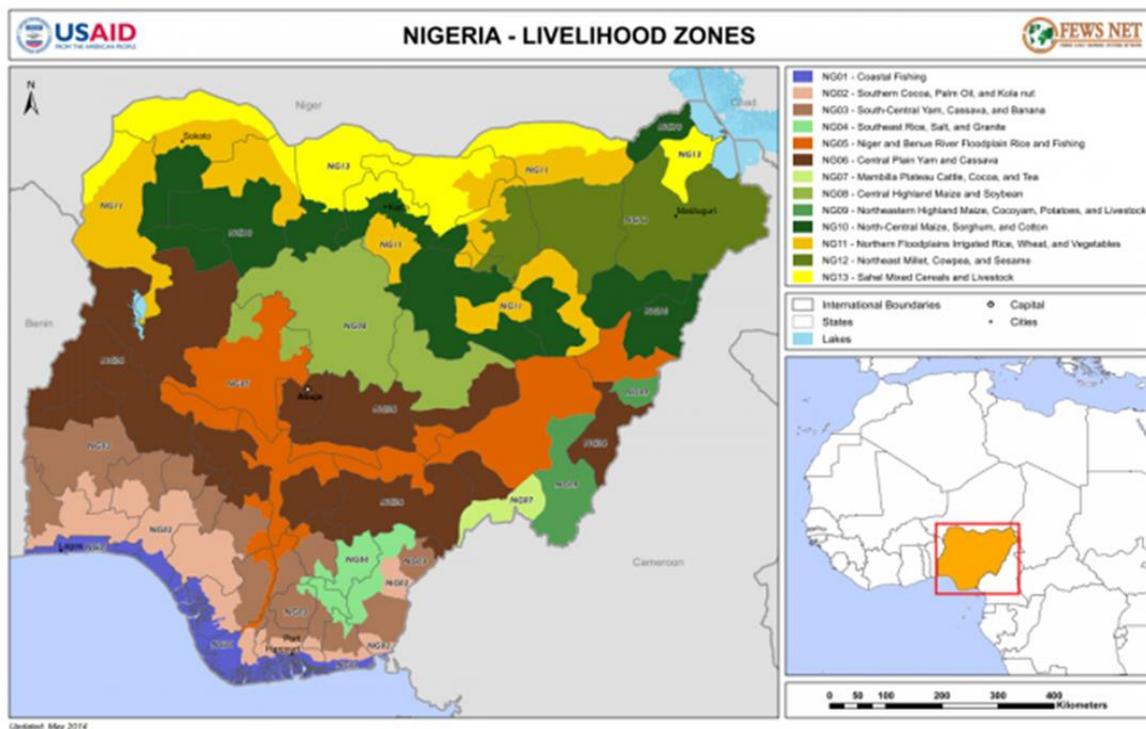
The Nigerian side of the Lake Chad within which the North East **Millet, Cowpeas and Sesame LZ (MCS)** is located is a semi-arid zone but particularly well suited to millet and cowpeas production, the cropping season involves irrigation and rain fed agriculture. Although livestock production is an important 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)- Katsina	Sept 2009 – August 2010
Cotton, Groundnuts & mixed Cereals LZ (CGC)- Zamfara	Sept 2011 – August 2012
Sorghum, Cowpeas and Groundnuts LZ (SCG)- Zamfara	Sept 2012 – August 2013
Northern Floodplains Irrigated Rice Wheat and Vegetable LZ (NG11)- Jigawa	Sept 2016 – August 2017
Sahel Mixed Cereals and Livestock LZ (NG13)- Jigawa	Sept 2016 – August 2017
Millet, Cowpeas and Sesame LZ (NG12)-Bauchi	Sept 2012 – august 2013
Maize, Sorghum and Cotton LZ (NG10)- Bauchi	Sept 2012 – August 2013
Millet, Cowpeas and Sesame LZ (NG12)- Borno	Sept 2016 – August 2017
Maize, Sorghum and Cotton LZ (NG10)- Borno	Sept 2016 – August 2017

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 changes 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 (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.

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 2019 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.

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.

III- PROJECTED FOOD SECURITY PROSPECTS

Crop	MAS	CGC	SCG	NG11	NG13	NG10 -BAU	NG12 -BAU	NG10 - BOR	NG12 - BOR
Maize	100	95	93	111		110	110	114	114
Millet	116	95	95	111	110	120	120		90
Rice		90	92	158		140	140	105	
Rice 2 nd Sea									
Sorghum	168	95	90	118	118	120	120	104	104
Wheat				132					
Cowpeas	110	90	90	112	112	98	98	98	98
Cotton		30							
Soya beans		90				128			
Groundnuts	120	95	93	140	120	110	110	103	100
Sesame	126	95		119	119				100
Pepper			85	107		127	100		
Onion			90	109		116	116		100
Tomato						120	100		100
Watermelon									
Vegetable							100		

Decrease Increase Not Important Not Available

3.1- Period covered by the analysis

The period covered by the analysis is **September 2018 – August 2019** consumption year.

The Outcome Analysis started off with a training (refresher) session on key parameter data collection methodology as well as a review on the data collection tool. The training was followed by 4 days' field exercise on key parameter data collection across the seven livelihood zones, information was gotten from Agricultural Development Programme (crop production figures and market prices). Other key parameter data were collected by members of the HEA working group (including government and non-government agencies) at the field.

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

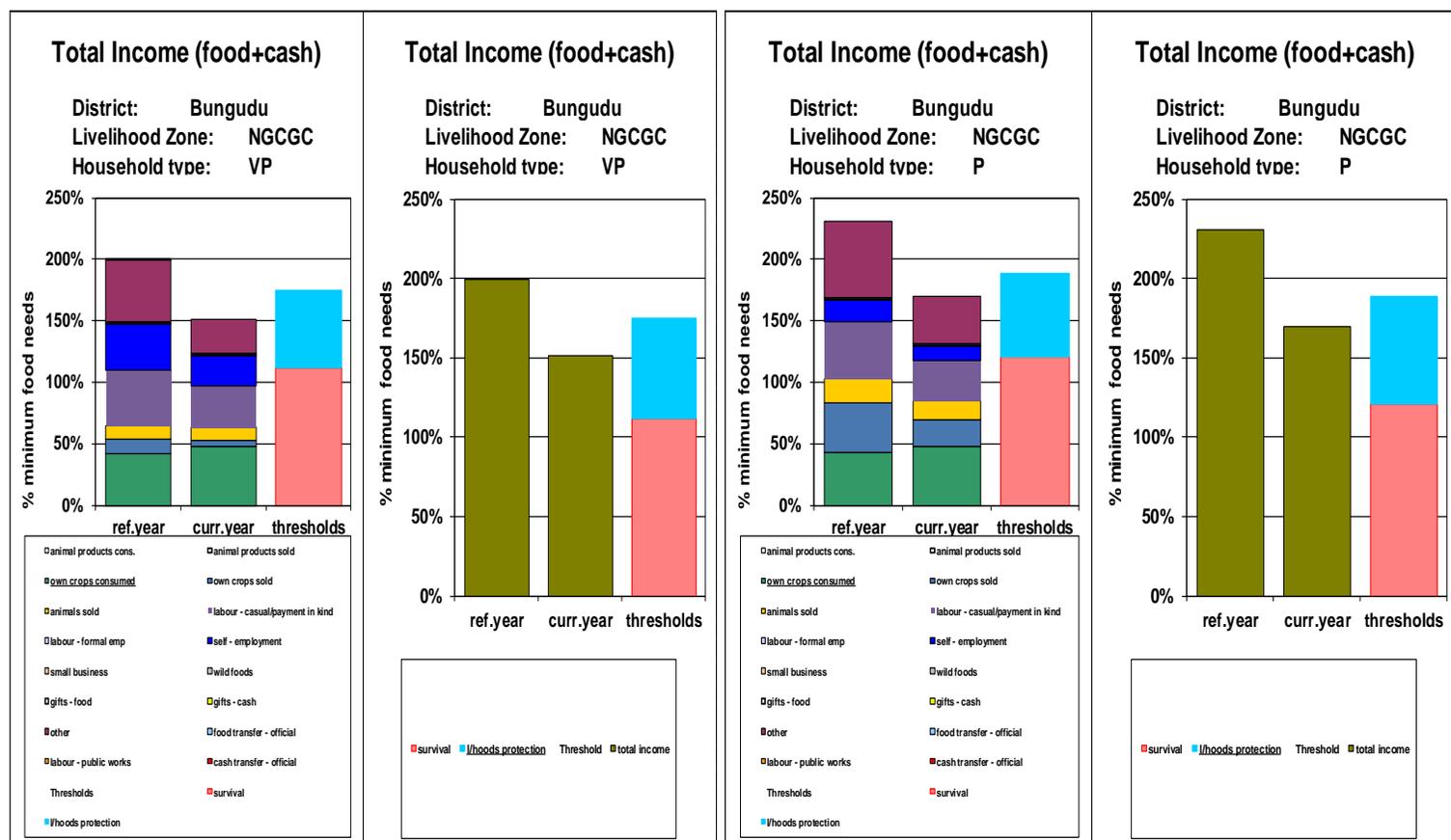
expected to impact total income for households in different wealth groups in the seven livelihoods zones. The graphs presented below shows the result of the scenario development/problem specifications for very poor and poor households for a district within each livelihood zone.

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

The results for the OA shows that the very poor household would likely face livelihood protect deficit of 24% while the poor would likely face livelihood protection deficit of 19%, other groups are not expected to face any deficit within this livelihood zone. This means that the very poor and the poor households would require support to meet their livelihoods needs to protect their existing livelihoods assets and prevent the use of high cost coping mechanisms.

There has been a little general increase in crop production, except for cotton which has reduced by 70% when compared with the reference year. The reduction in cotton production is due to poor market/prices of cotton within the zone and country in general which has resulted to shift from cotton to other crops. The decrease in livestock remains due to cattle rustling as well as theft of small ruminants in this zone. Wage rates on casual and agricultural labor has increased, but the security conditions due to arm banditry and the rise in kidnaping within this zone has drop the availability of casual labor. The impact is more on the very poor and poor households, who depend largely on both casual and agricultural labor.

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.

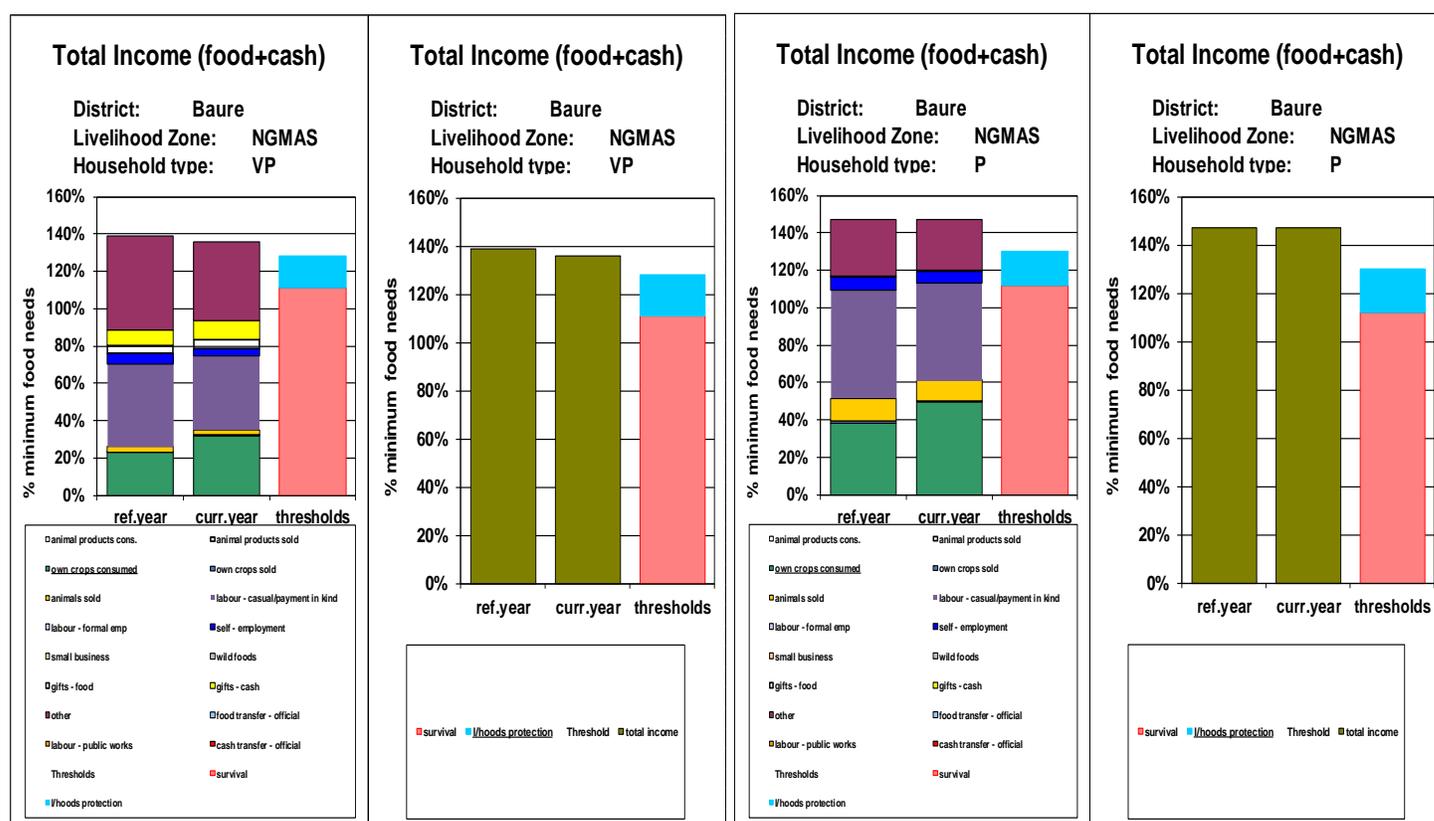


2- NG04: North West Millet & Sesame Livelihood Zone

The results for the scenario analysis show that there will be neither survival nor livelihood protection deficits for any wealth group in this livelihood zone, this implies that households within this zone would be able to access both food and cash income need to survive and as well maintain local livelihood.

There is an increase in crop production also within the MAS LZ and this also resulted to increase in own crop consumed by both the very poor and the poor household income generated from both casual and agricultural labor has not significantly reduced when compared with the reference year therefore, there is every possibility that all the wealth group within this livelihood zone including the poor and the very poor would not be having either survival deficit or livelihood protection deficit.

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.

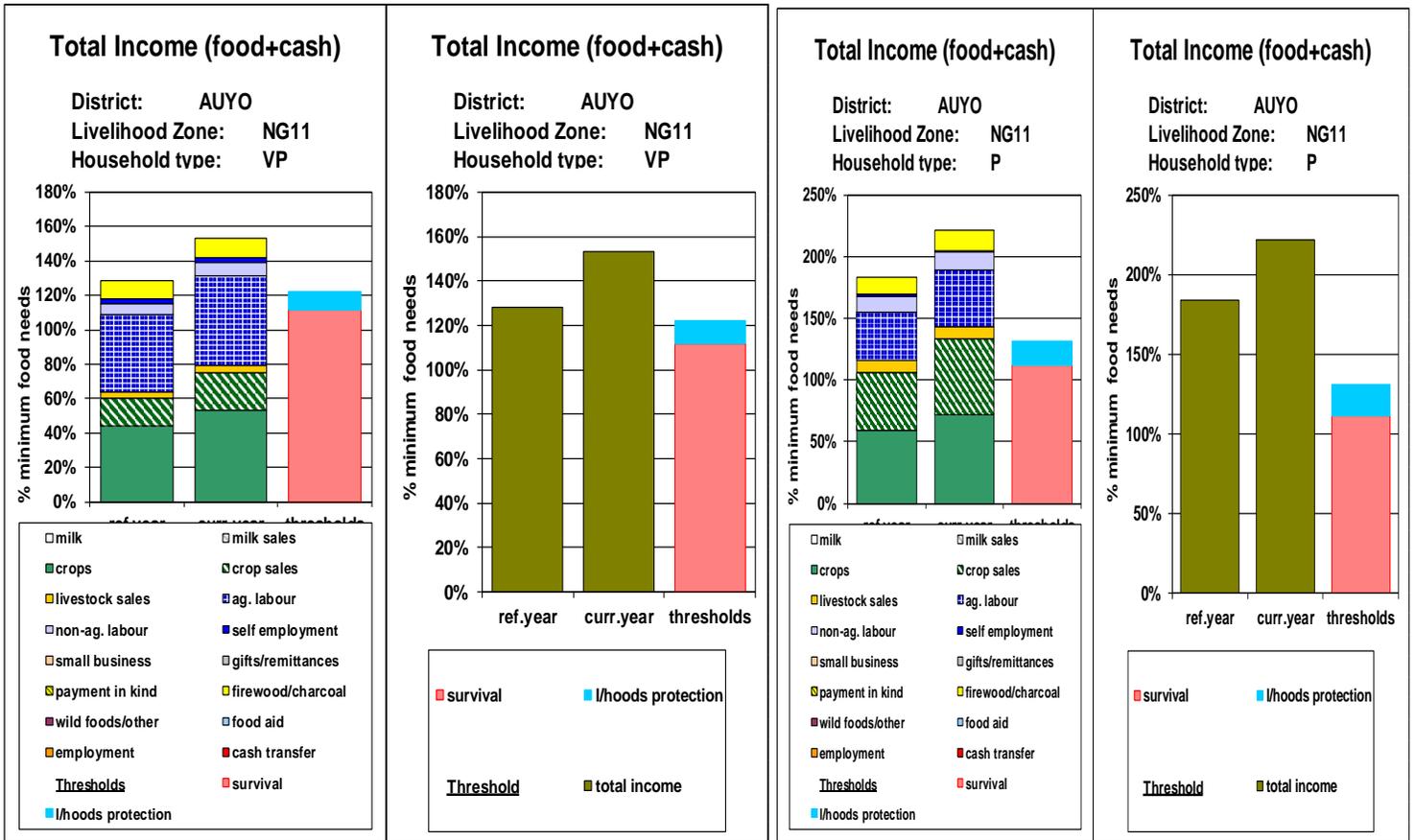


3- NG11: Northern Floodplains Irrigated Rice Wheat and Vegetable

The results for the scenario analysis show that there will be neither survival nor livelihood protection deficits for any wealth group in this livelihood zone, this implies that households within this zone would be able to access both food and cash income need to survive and as well maintain local livelihood.

There has been general increase in crop production within the LZ thereby increasing own crops consumed from 44% to 53% for the very poor and 60% to 72% for the poor. The analysis indicates that the very poor as well as other wealth groups can meet their basic staple food and livelihood needs. Hence no survival nor livelihood support would be required.

In the graph below Auyo LGA was used but represents other LGAs (Auyo, Guri, Hadejia, Kafin Hausa, Kaugama, Kiri Kassama, Miga and Malam Madori) in the Northern Floodplains Irrigated Rice Wheat and Vegetable Livelihood zone.

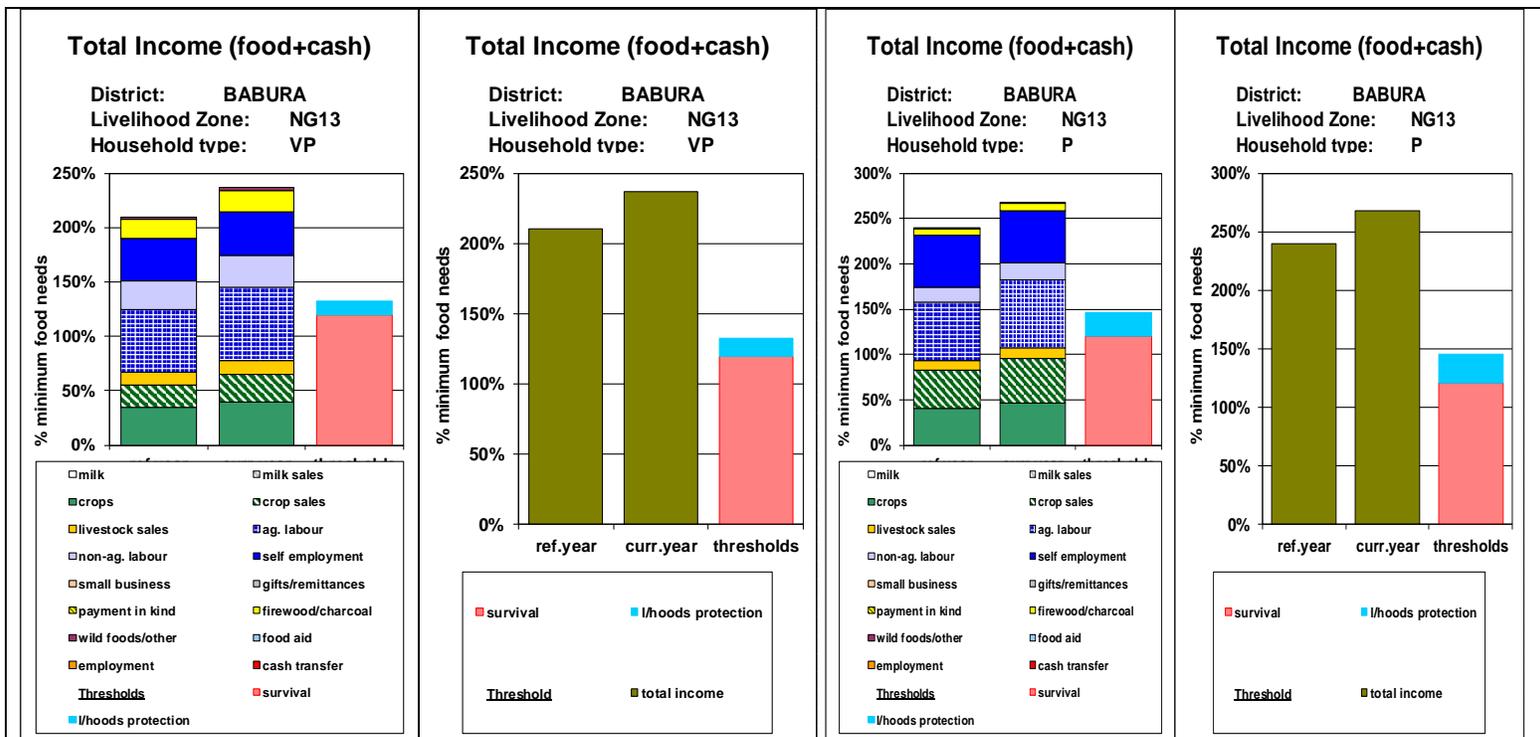


4- NGI3: Sahel Mixed Cereals and Livestock Livelihood Zone

The results for the outcome analysis (OA) shows that there will be no deficits for any wealth group within this livelihood zone. This implies that households within this zone would be able to access both food and cash income need to survive and as well maintain local livelihood.

There is an increase in crop production in the current year with respect to the reference year, and this has increased 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 (35% to 40% for the very poor and 58% to 67% for the poor). Household income increases also due to increase in agricultural labour (41% to 46% for the very poor and 65% to 75% for the poor). household will be able to meet both their basic food and livelihood needs.

In the graph below Babura LGA was used but represents other LGAs (Babura, Birniwa, Dutse, Gagarawa, Garki, Gwiwa, Gumel, Jahun, Kazaura, Kiyawa, Maigatari, Malam Madori, Ringim, Roni, Sule Tankarkar, Taura and Yankwashi) in the Sahel Mixed Cereals and Livestock Livelihood zone.

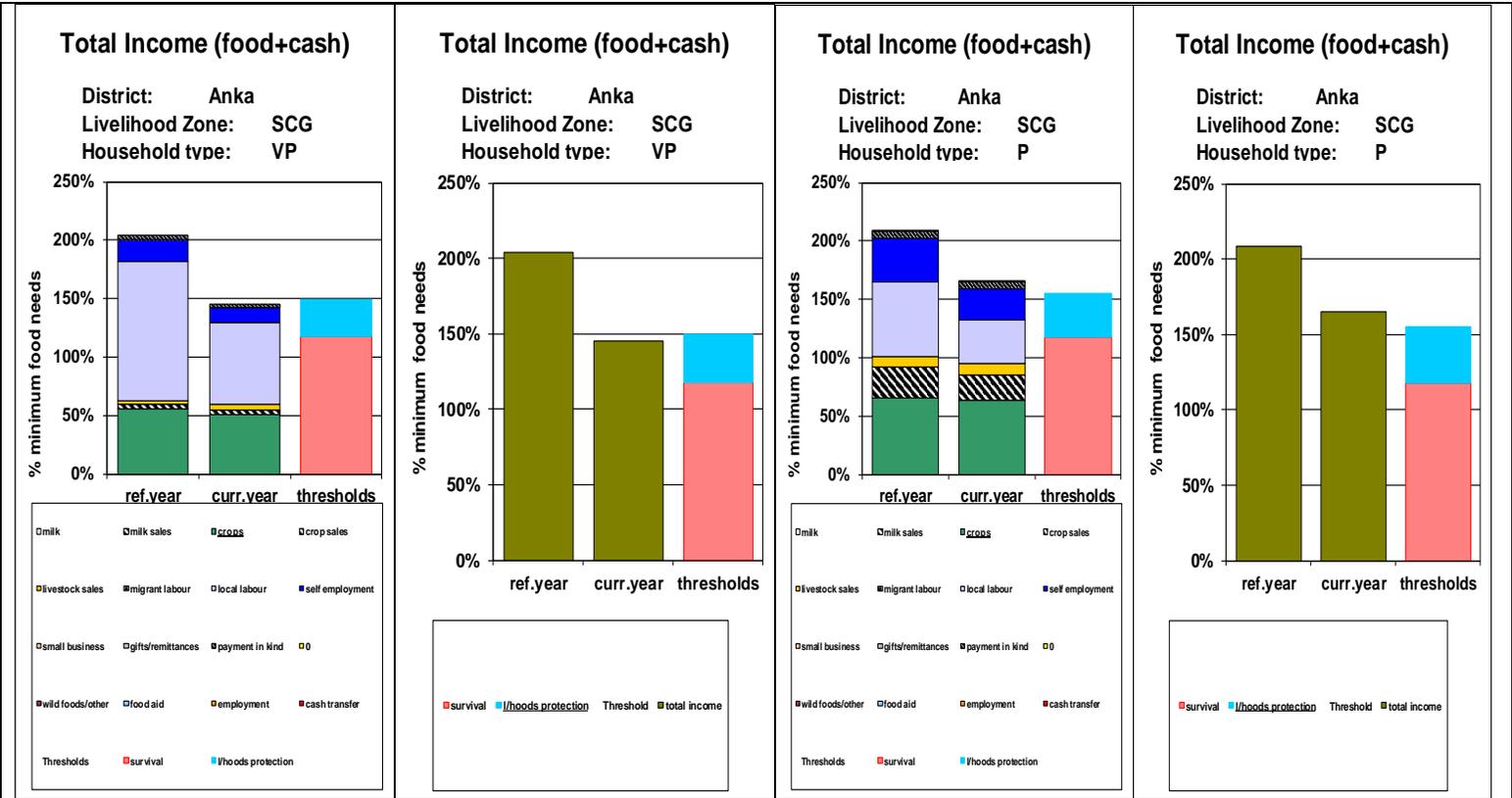


5-NG06: NW Sorghum, Cowpeas and Groundnuts Livelihood Zone

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 external support will be needed as households within this zone would be able to access both food and cash income needed to survive and as well maintain local livelihood.

Although income from labour and self-employment decreased significantly with respect to the reference year, Also slight decreases in crop production (from 55% to 51% for the very poor and from 66% to 64% for the poor) Still households will be able to maintain both food requirement and access to basic livelihood protection without external assistant.

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

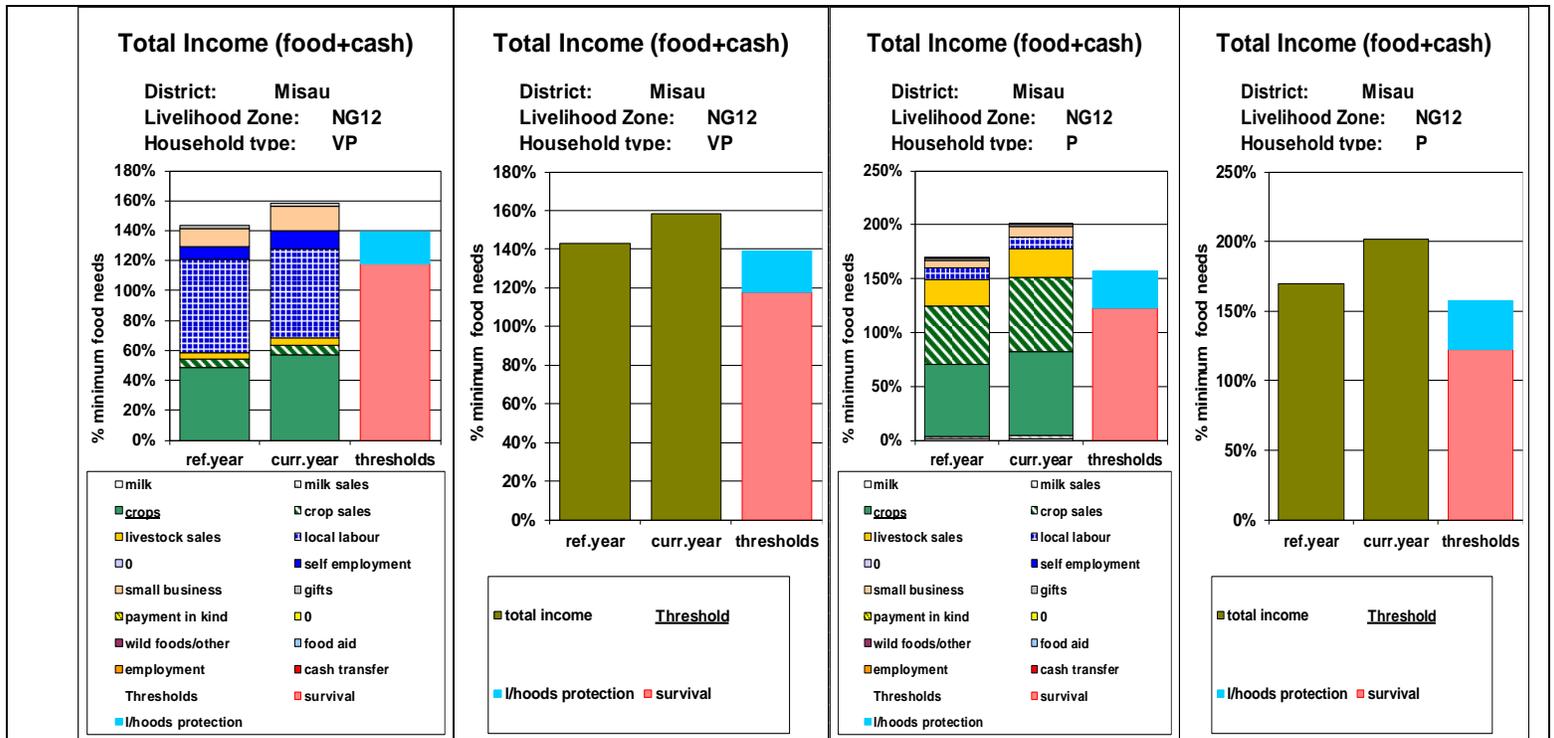


6-NG12: Bauchi State- NE Millet, Cowpeas and Sesame Livelihood Zone

The analysis indicates that no wealth group in this zone would face any deficit, either on survival or livelihood, this implies that households across the four wealth groups would be able to access food and cash required to meet their basic food and nonfood needs within the projected period.

There is a general increase in crop production within the zone, resulting to increase in own crop consumed (from 49% to 57% for the very poor and from 66% to 78% for the poor). Income from small business also increased from (12% to 16% for the very poor and from 1% to 10% for the poor). Although there is a slight decrease on income from local labour (from 63% to 60% for the very poor and a slight increase (from 8% to 10%) for the poor, still the all households would be likely to maintain its energy requirement and access to basic means of livelihood.

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.

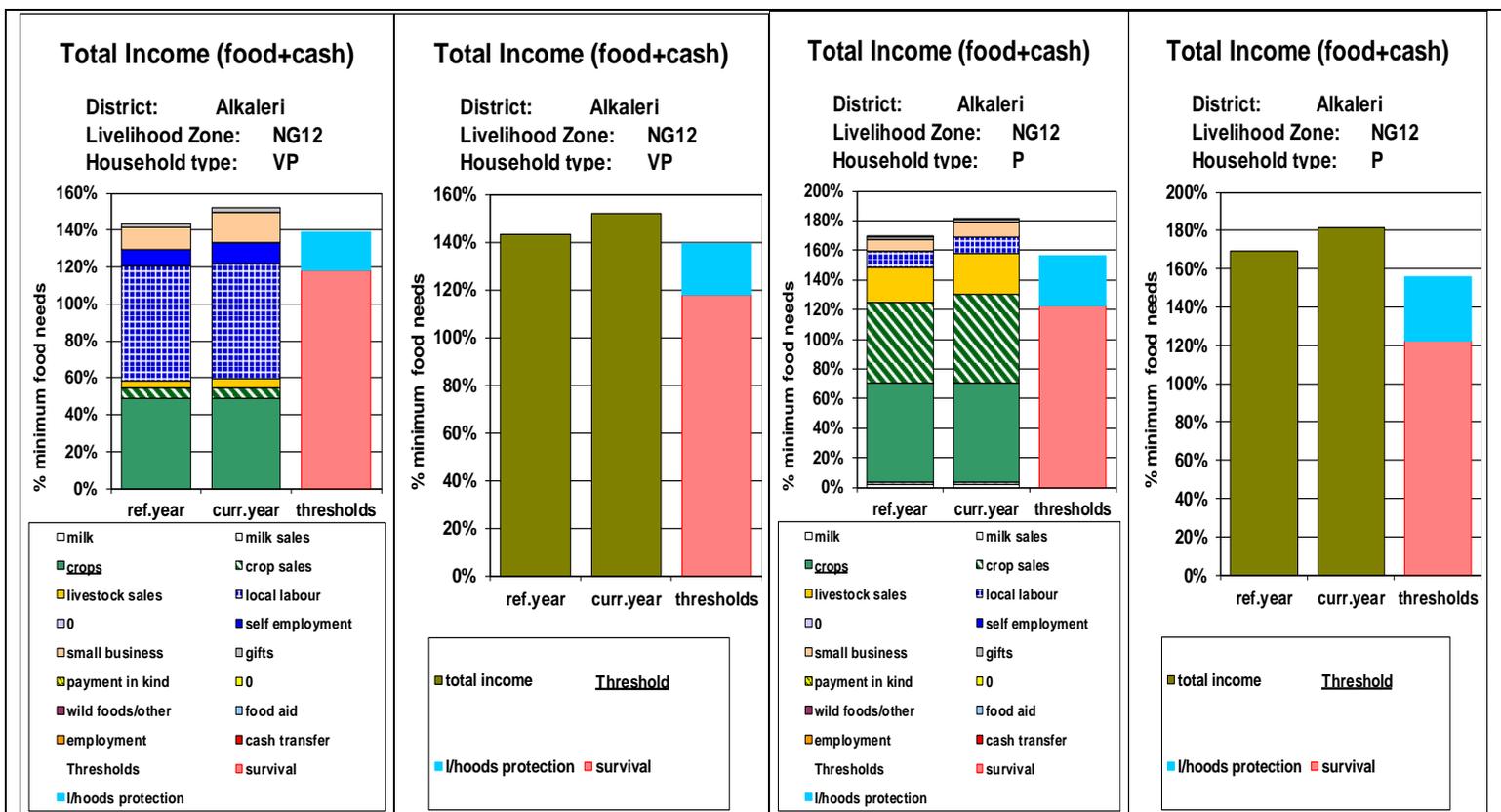


7-NG10: Bauchi State- NC Maize, Sorghum and Cotton Livelihood Zone

The Outcome Analysis for North Central Maize, Sorghum and Cotton Livelihood Zone shows no deficit in both survival and livelihood protection for all wealth groups, hence no external assistance would be required for this zone.

Crop production in MSC LZ increased generally as compared to the reference year. This has also increased own crops consumed across the wealth group (50% to 60% for the very poor and 58% to 68% for the poor), though income from casual labour reduced when compared to the reference year (from 89% to 73% for the very poor and from 67% to 54% for the poor) and no significant change in income from crop sales but it very possible that all household in all the wealth group not to have survival and livelihood protection deficit.

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.



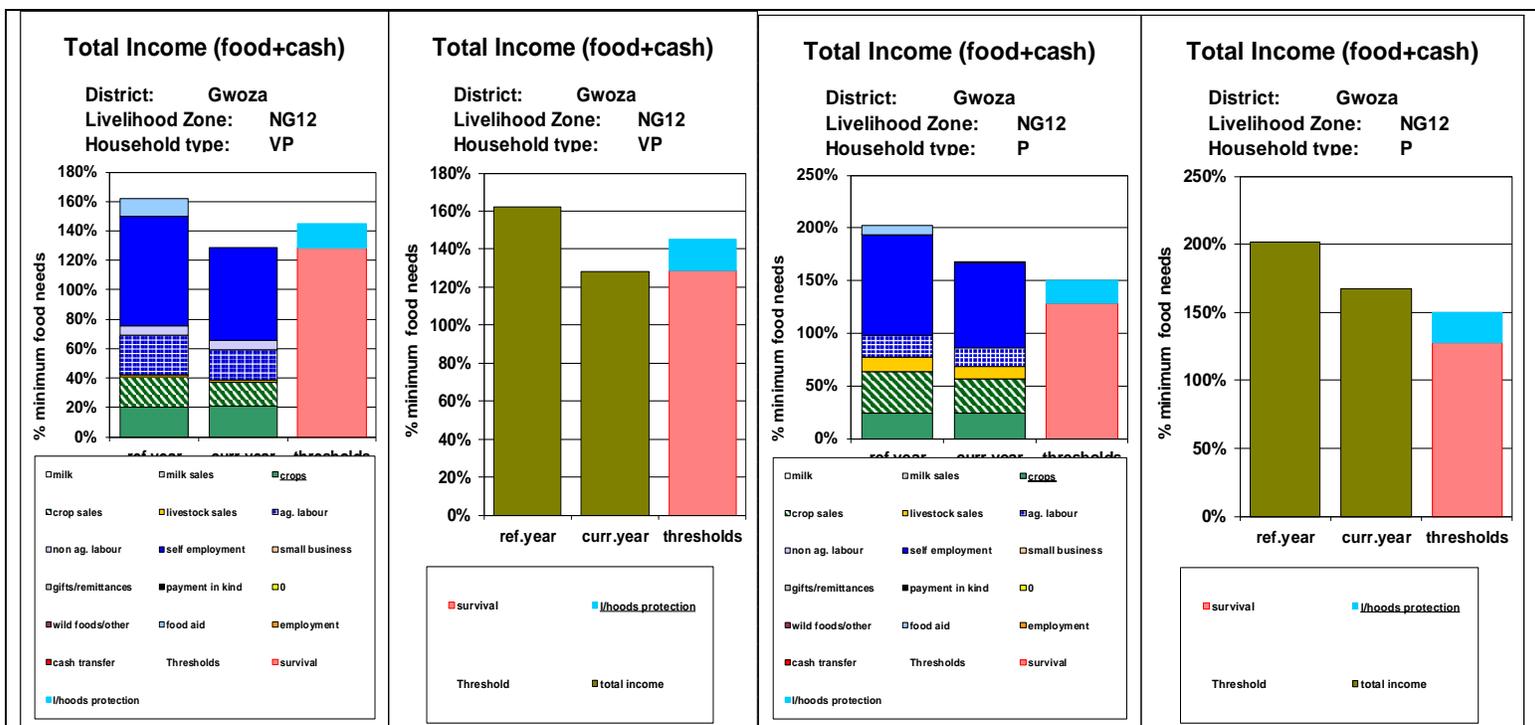
8- NG12: Borno State- NE Millet, Cowpeas and Sesame Livelihood Zone

The analysis indicates that the very poor households within Bama, Damboa Dickwa Gubio and Gwoza LGAs the zone would likely face a survival deficit of 1% and livelihood protection deficit of 16%. The very poor households within Kalabalge, Marte and Ngala LGAs within the zone would likely also face a survival deficit of 5% livelihood protection deficit of 16%, this is due to high security challenges faced in these LGAs. Other wealth groups are not expected to face deficits within the projected period.

Households facing survival deficit would not be able to meet their daily food needs and would therefore require urgent support to meet their food needs, while households facing livelihood protection deficit would require support to meet their livelihood needs. This implies that the very poor households would require support on both survival and livelihood as the analysis projects deficit on both in order to prevent the use high cost coping mechanism. Households not facing deficits would be able to access food and cash income to meet their normal food and nonfood needs within the projected period.

There is no significant change in crop production within the zone (Borno- NG12 LZ) as the insecurity persist and some communities still inaccessible, farming activities remain minimal resulting to fewer own crop consumption and income from crop sales. Income from Agric. Labour dropped (from 27% to 20% for the very poor and from 21% to 18% for the poor) as well as income from self-employment (74% to 63% for the very poor and from 95% to 81% for the poor). The assumption here is the absence of food aid which is on average 12% across the livelihood zones.

In the graph below Bama LGA was used but represents other LGAs (Bama, Damboa, Dikwa, Gubio, Gwoza, Jere, Kaga, Kalabalge, Konduga, Mafa, Magumeri, Marte, Maiduguri, Monguno and Ngala LGA) in the Millet, Cowpeas and Sesame Livelihood zone.

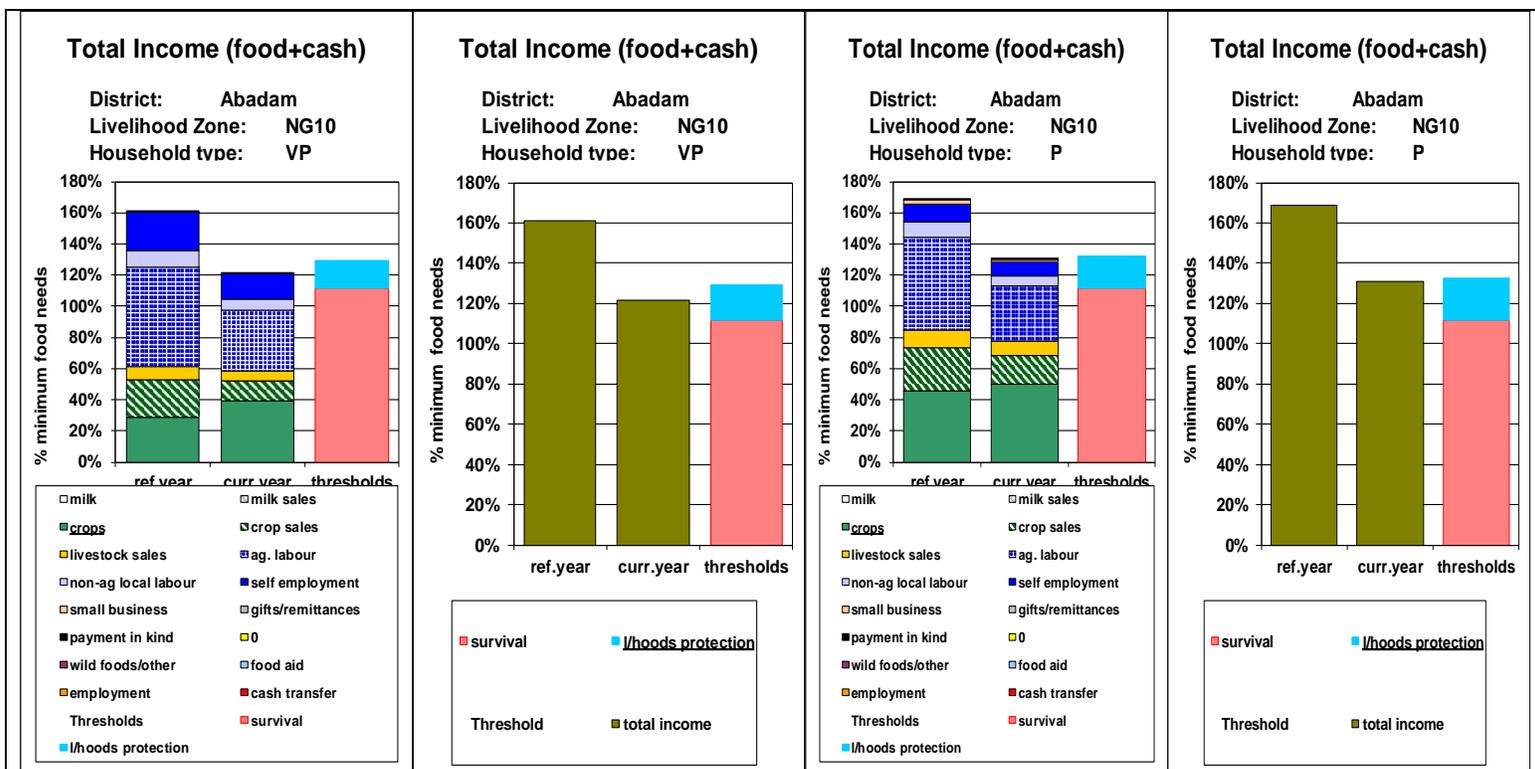


9- NG10: Borno State- NC Maize, Sorghum and Cotton Livelihood Zone

The Outcome Analysis for North Central Maize, Sorghum and Cotton Livelihood Zone shows no deficit in both survival and livelihood protection for all wealth groups, hence no external assistance would be required for this zone.

This livelihood zone is relatively stable in terms of security when compare with NG12 LZ within Borno, therefore crop production in Borno- NG10 LZ increased slightly as compared to the reference year and this resulted to increased own crops consumed across the wealth group (28% to 31% for the very poor and from 45% to 50% for the poor), Income from agric labour has increased significantly from 64% to 70% for the very poor and from 59% to 84% when compared to the reference year therefore it is possible that all household within the zone not to have any deficit.

In the graph below Biu LGA was used but represents other LGAs (Abadam, Askira Uba, Biu, Chibok, Hawul, Kwaya Kusar, Mobbar and Shani) in the Maize, Sorghum and Cotton Livelihood zone.



IV- SUMMARY OF THE RESULTS COMPARED WITH THE TWO THRESHOLDS

The analysis shows that the very poor households in CGC (Zamfara), SGC (Zamfara and NG10 (Borno) livelihood zone would likely face a livelihood protection deficit 24%, 4% & 8% respectively with the poor in CGC (Zamfara) & NG10 (Borno) also likely to face livelihood protection deficits of 19% & 2% respectively. Borno NG12 is treated based on access due to security context. The very poor household within (Bama, Damboa, Dikwa, Gubio & Gwoza) LGA is likely to face survival deficit and livelihood protection deficit of 1% and 16% respectively while the very poor household within (Kalabalge, Marte & Ngala) is likely to face survival deficit and livelihood protection deficit of 5% & 16% respectively. The remaining wealth groups across the other LZs are not expected to face any deficit.

Households facing survival deficit would not be able to meet their daily food needs and therefore requires urgent support to meet their food needs during the deficit period, while households facing livelihood protection deficit would require support to meet their livelihood needs, this will also prevent the use high cost coping mechanism. While households not facing deficits would be able to access food and cash income to meet their normal food and non-food needs within the projected period.

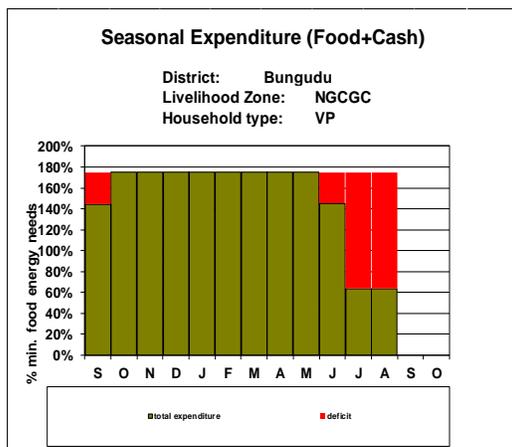
Summary of Outcome Analysis Results: Wealth Groups/Livelihood Zones Facing Deficits									
	MAS	CGC	SCG	NG11	NG13	NG10-Bau	NG12-Bau	NG10-Bor	NG12-Bor
Very Poor	No deficits	LPD= 24%	LPD= 4%	No deficits	No deficits	No deficits	No deficits	LPD= 8%	SD= 1% & 5% LPD= 16% & 16%
Poor	No deficits	LPD= 19%	No deficits	No deficits	No deficits	No deficits	No deficits	LPD= 2%	No deficits
Middle	No deficits	No deficits	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	No deficits	No deficits
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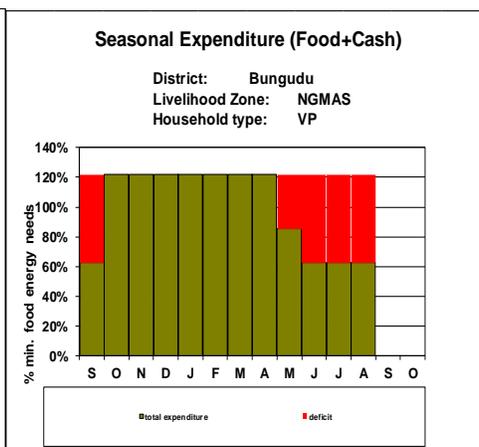
V- SEASONALITY

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 2018 – August 2019 as projected**. Based on the analysis above, 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 presented below.

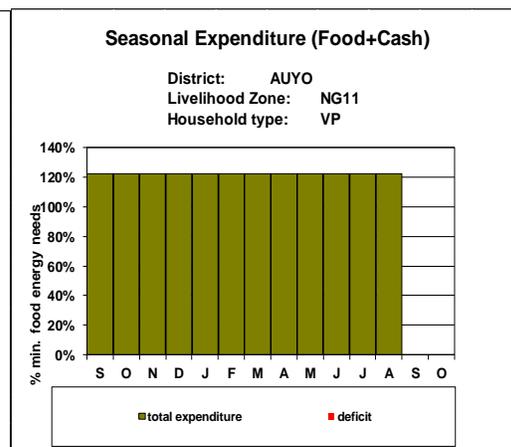
CGC- LZ



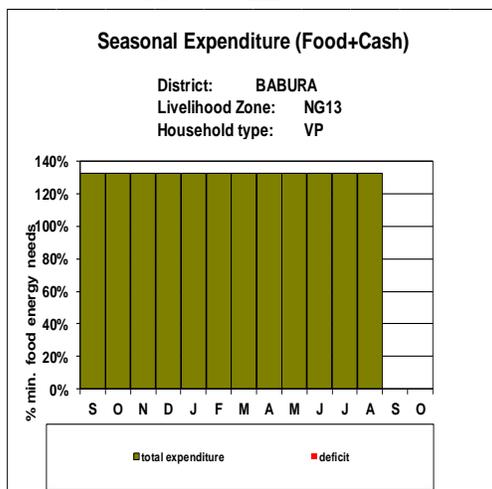
NG11- LZ



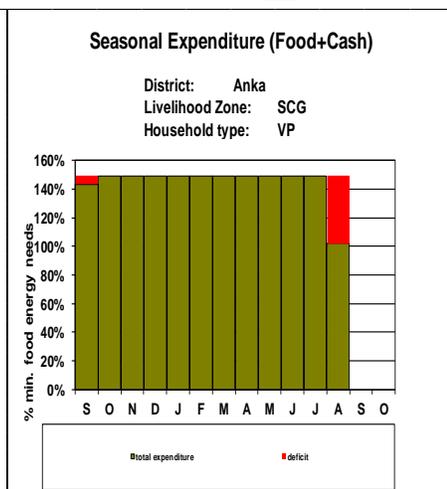
MAS-LZ



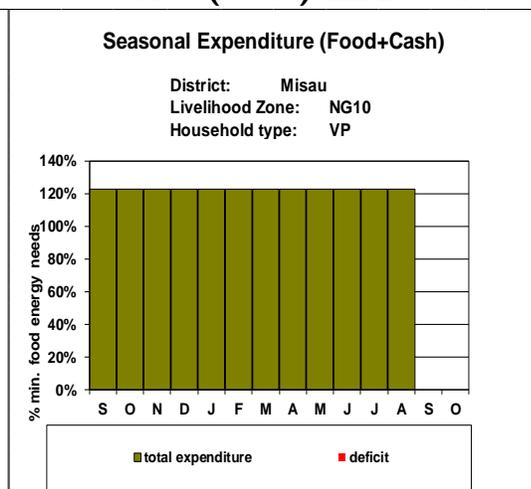
NG13- LZ

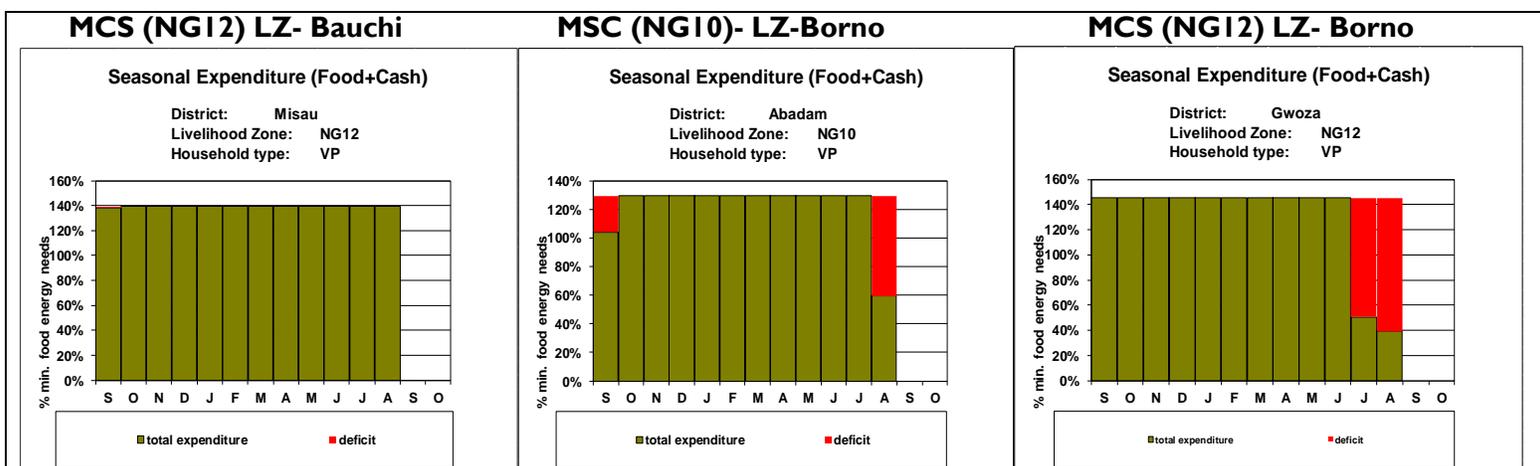


SCG- LZ



MSC (NG10)- LZ-Bauchi





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 supports to Improve food access for the very poor and poor households as well as livelihood by providing basic farm inputs
- Government support in establishing food preservation programs especially vegetables.
- A joint assessment with partners is being encouraged.
- Government to intensify effort to improve the security situation in Nigeria.
- Government support to the Agriculture Development program (ADP) to ensure effective system support with respect to agriculture and as well data collection to inform decision making.

CONCLUSION

The analysis shows that the very poor households in CGC (Zamfara), SGC (Zamfara and NG10 (Borno) livelihood zone would likely face a livelihood protection deficit 24%, 4% & 8% respectively with the poor in CGC (Zamfara) & NG10 (Borno) also likely to face livelihood protection deficits of 19% & 2% respectively. Borno NG12 is treated based on access due to security context. The very poor household within (Bama, Damboa, Dikwa, Gubio & Gwoza) LGA is likely to face survival deficit and livelihood protection deficit of 1% and 16% respectively while the very poor household within (Kalabalge, Marte & Ngala) is likely to face survival deficit and livelihood protection deficit of 5% & 16% respectively. The remaining wealth groups across the other LZs are not expected to face any deficit.

Households facing survival deficit would not be able to meet their daily food needs and therefore requires urgent support to meet their food needs during the deficit period, while households facing livelihood protection deficit would require support to meet their livelihood needs, this will also prevent the use high cost coping mechanism. While households not facing deficits would be able to access food and cash income to meet their normal food and non-food needs within the projected period.

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	60%	143%
Goats	60%	170%
Sheep	60%	150%
Cow's Milk	100%	175%
Maize	95%	129%
Millet	95%	122%
Rice	90%	139%
Cowpeas	90%	160%
Soya beans	90%	136%
Sorghum	95%	138%
Groundnuts	95%	131%
Cotton	30%	100%
Agricultural labor	70%	171%
Construction	70%	180%
Fetching water	90%	120%
Firewood sales	70%	160%
Credit		
Self-employment	90%	100%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer: Urea		160%
Staple Food (Sorghum)		169%
Inflation		196%

Legend: Highlight in black 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 (196%) to those items.

NG04: NW Millet & Sesame Livelihood Zone

Problem Specification for NW Millet & Sesame Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	100%	182%
Goats	110%	167%
Sheep	110%	171%
Cow's Milk	100%	250%
Millet	116%	122%
Cowpeas	110%	160%
Sorghum	168%	
Sesame	139%	139%
Agricultural labor	100%	167%
Construction	100%	160%
Firewood sales	90%	160%
Self-employment	105%	150%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer: Urea		100%
Staple Food (Millet)		193%
Inflation		243%

Legend: Highlight in black 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 (243%) to those items.

NGI I: Northern Floodplains Irrigated Rice Wheat and Vegetable Livelihood Zone

Problem Specification for NGI I Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	100%	100%
Goats	100%	100%
Sheep	100%	100%
Maize	114%	78%
Millet	110%	90%
Rice	158%	112%
Sesame	119%	124%
Cowpeas	112%	108%
Sorghum	118%	85%
Wheat	132%	92%
Pepper	107%	146%
Onions	109%	125%
Groundnut	140%	85%
Agricultural labor pre harvest	100%	125%
Agricultural Labour harvest	100%	125%
Construction	100%	120%
Firewood sales	100%	125%
Self-employment	100%	100%
Education	100%	117%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		93%
Staple Food (Maize)		107%
Inflation		117%

Legend: Highlight in black 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 (117%) to those items.

NGI3: Sahel Mixed Cereal and Livestock Livelihood Zone

Problem Specification for NGI3 Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	100%	100%
Goats	100%	100%
Sheep	100%	100%
Cow's Milk	100%	100%
Sorghum	118%	85%
Millet	110%	90%
Cowpeas	112%	108%
Groundnuts	120%	100%
Sesame	119%	124%
Roselle		100%
Agricultural labor: pre-harvest	100%	125%
Agricultural labor: harvest	100%	125%
Construction	100%	120%
Self-employment	100%	107%
Livestock Brokering	100%	117%
Firewood & Charcoal sales	100%	125%
Petty trade	100%	100%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		93%
Education		133%
Medicine		100%
Staple Food (Maize)		107%
Inflation		117%

Legend: Highlight in black 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 (117%) 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	65%	145%
Goats	65%	160%
Sheep	65%	165%
Cow's Milk	100%	150%
Sorghum	90%	125%
Millet	95%	106%
Rice	92%	137%
Cowpeas	90%	158%
Maize	93%	123%
Groundnuts	93%	148%
Pepper	85%	104%
Onions	90%	114%
Agricultural labor: pre-harvest	70%	120%
Construction	70%	133%
Fetching Water	75%	121%
Firewood & Charcoal sales	65%	154%
Trade: livestock & dry goods	85%	135%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		160%
Labor		150%
Animal drugs		142%
Ploughing/Land rental		157%
Transport		167%
Education		175%
Medicine		175%
Tax		
Staple Food (Sorghum)		151%
Inflation		177%

Legend: Highlight in black 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.

Bauchi -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	100%	135%
Goats	100%	160%
Sheep	100%	163%
Cow's Milk	100%	133%
Maize	110%	167%
Sorghum	120%	164%
Rice		155%
Millet		140%
Cowpeas	98%	127%
Soya beans	109%	168%
Groundnuts	110%	154%
Onions	116%	140%
Tomatoes	120%	120%
Pepper	127%	127%
Agricultural labor: cultivation	105%	125%
Construction	100%	120%
Domestic Labor	100%	133%
Other self-employment	100%	150%
Petty Trading	100	
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		175%
Pesticide		156%
Land rental		125%
School		140%
Medicine		150%
Animal Drugs		125%
Staple Food (Sorghum)		167%
Staple Food (Maize)		124%
Inflation		177%

Legend: Highlight in black 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.

Bauchi -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	100%	129%
Goats	100%	160%
Sheep	100%	157%
Cow's Milk	100%	143%
Maize	110%	
Sorghum	120%	164%
Rice		
Millet		140%
Cowpeas	98%	127%
Groundnuts	110%	154%
Onions	116%	140%
Agricultural labor: cultivation	100%	125%
Construction	100%	120%
Petty Trade	100%	
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		175%
School		138%
Medicine		
Staple Food (Maize)		124%
Inflation		177%

Legend: Highlight in black 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.

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

Problem Specification for Borno –NG10 Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	100%	90%
Goats	100%	100%
Sheep	100%	100%
Maize	114%	72%
Sorghum	104%	80%
Rice	105%	91%
Cowpeas	98%	100%
Soya beans		90%
Groundnuts	103%	94%
Agricultural labor: cultivation	100%	100%
Agricultural labor: harvest	100%	100%
Construction	100%	100%
Petty trade	100%	120%
Trade: Livestock and dry goods	100%	133%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		93%
Labour		100%
Land rental		125%
School		100%
Medicine		100%
Staple Food (Maize)		114%
Inflation		117%

Legend: Highlight in black 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.

Borno -NGI2: NE Millet, Cowpeas and Sesame Livelihood Zone

Problem Specification for Borno NGI2 Livelihood Zone		
Key parameter	Production Problem	Price Problem
Cattle	100%	90%
Goats	100%	90%
Sheep	100%	900%
Cow's Milk	100%	100%
Maize	114%	115%
Sorghum	104%	110%
Millet	90%	
Cowpeas	98%	100%
Groundnuts	100%	100%
Sesame	100%	100%
Tomato	100%	100%
Watermelon	100%	95%
Onions	100%	100%
Agricultural labor: cultivation	80%	113%
Petty trade	100%	115%
Firewood sales	100%	121%
Trade: Livestock and dry goods	100%	100%
Components of the Livelihood Protection Basket (LPB)		
Fertilizer		100%
Labour		100%
Land Rental		104%
Staple Food (Maize)		100%
Staple Food (Sorghum)		100%
Inflation		117%

Legend: Highlight in black 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.

7.2 Table summarizing the Outcome Analysis results

Country	LZ description	Baseline	State	LGAs	Population	Wealth Groups	% Population	Timing of Deficit	Survival Deficit	LP Deficit (%Kcal)
NIGERIA	Millet & Sesame LZ (MAS)	Sept09-Aug10	Katsina	Baure, Daura, Dutsi, Mashi, Zango & Sandamu	1,384,505	VP	34%	No deficit	No deficit	No deficit
						P	32%	No deficit	No deficit	No deficit
						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	1,643,736	VP	26%	Jul-Aug, 2019	No deficit	24%
						P	26%	Jul-Aug, 2019	No deficit	19%
						M	26%	No deficit	No deficit	No deficit
						BO	22%	No deficit	No deficit	No deficit
	Sorghum Cowpea and Groundnut LZ (SCG)	Sept12-Aug13	Zamfara	Anka, Bukkuyum & Gumi	774,696	VP	33%	Aug, 2019	No deficit	4%
						P	20%	No deficit	No deficit	No deficit
						M	23%	No deficit	No deficit	No deficit
						BO	24%	No deficit	No deficit	No deficit
	Maize, Sorghum and Cotton LZ (MSC)	2012-13	Bauchi	Alkaleri, Bogoro, Dass, Gamjuwa, Ningi, Toro & Tafawa Balewa	2,314,062	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	1,861,703	VP	27%	No deficit	No deficit	No deficit
						P	29%	No deficit	No deficit	No deficit
						M	25%	No deficit	No deficit	No deficit
						BO	18%	No deficit	No deficit	No deficit
	Northern Floodplains Irrigated Rice Wheat and Vegetable(NG11)	Sept16-Aug17	Jigawa	Auyo, Guri, Hadejia, Kafin Hausa, Kaugama, Kirikasama, Miga, Malam Madori	1,860,927	VP	28%	No deficit	No deficit	No deficit
						P	26%	No deficit	No deficit	No deficit
						M	29%	No deficit	No deficit	No deficit
						BO	18%	No deficit	No deficit	No deficit
	Sahel Mixd Cereals and Livestock (NG13)	Sept16-Aug17	Jigawa	Babura, Birniwa, Dutse, Dagarawa, Garki, Gwiwa, Gumel, Jahun, Kazaure, Kiyawa, Maigatari, Malam Madori, Ringim, Roni, Sule Tankarkar, Taura, Yankwashi	3,946,624	VP	34%	No deficit	No deficit	No deficit
						P	29%	No deficit	No deficit	No deficit
						M	21%	No deficit	No deficit	No deficit
						BO	16%	No deficit	No deficit	No deficit
	North Central Maize Sorghum and Cotton LZ (NG10)	Sept16-Aug17	Borno	Abadam, Askira Uba, Biu, Chibok, Hawul, Kwaya Kusar, Mobbar, Shani	1,734,067	VP	25%	No deficit	No deficit	No deficit
						P	27%	No deficit	No deficit	No deficit
						M	25%	No deficit	No deficit	No deficit
						BO	23%	No deficit	No deficit	No deficit
Abadam & Mobbar			51,109	VP	25%	Aug, 2019	No deficit	8%		
				P	27%	Aug, 2019	No deficit	2%		
				M	25%	No deficit	No deficit	No deficit		
				BO	23%	No deficit	No deficit	No deficit		
Northeast Millet Cowpea and Sesame (NG12)	Sept16-Aug17	Borno	Jere, Kaga, Konduga, Mafa, Magumeri, MMC & Mungono	3,650,286	VP	38%	No deficit	No deficit	No deficit	
					P	26%	No deficit	No deficit	No deficit	
					M	21%	No deficit	No deficit	No deficit	
					BO	14%	No deficit	No deficit	No deficit	
		Bama, Damboa, Dikwa, Gubio & Gwoza	368,381	VP	38%	Jul-Aug, 2019	1%	16%		
				P	26%	No deficit	No deficit	No deficit		
				M	21%	No deficit	No deficit	No deficit		
				BO	14%	No deficit	No deficit	No deficit		
		Kalabalge, Marte & Ngala	94,016	VP	38%	Jun - Aug, 2019	5%	16%		
				P	26%	No deficit	No deficit	No deficit		
				M	21%	No deficit	No deficit	No deficit		
				BO	14%	No deficit	No deficit	No deficit		

7.3 List of participants

OAW 1

USAID FROM THE AMERICAN PEOPLE		ATTENDANCE SHEET OUTCOME ANALYSIS WORKSHOP			Save the Children			
Date: 6th to 9th February, 2019		Venue: Kaduna State						
S/N	Names	Sex	Organization	State	06-02-19	07-02-19	08-02-19	09-02-19
1	Ladim Esther	F	NAERISABU	ZARIA				
2	AMOS BUBA AIBAE	M	BORNO ADP	BORNO				
3	ALI ISA YAIWA	M	SEMA BORNO	BORNO				
4	HARUNA ABUBAKAR	M	NEMA	BAUCHI				
5	Alifu TANKO	M	NEMA	ABUJA				
6	SHILU BALARABE	M	SEMA JIGAWA	JIGAWA				
7	Bulama DAUDA	M	NPFS	ABUJA				
8	Garba Abubakar	M	Jigawa ADP	Jigawa				
9	George Monyei	M	MCRDF	ABUJA				
10	Baba YAKUBU LAMU	M	SEMA	BAUCHI				
11	ABUBAKAR SADIQ HASSAN	M	ADP	BAUCHI				
12	MAMMUD BALA Umar	M	MDA	BAUCHI				
13	DILLMA EU BISHOP	M	NBS	ABUJA				
14	Benjamin Morfis Ramna	M	CSW-N	BAUCHI				
15	Okpe MOSES Adejebi	M	NEMA	TOS				
16	Nelson Oba'ish Yidawo	M	SCI	BORNO				

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17	Danwatu Dasele Sammakun	M	SCI	Borno	Dasele	Dasele	Dasele	Dasele
18	Ago Amuly	m	Sci	Abuja	Ago	Ago	Ago	Ago
19	Chukwurah Chukwagzie	m	FMBNP	Abuja	Chukwurah	Chukwagzie	Chukwagzie	Chukwagzie
20	Okote Chikwabi	M	SCI	Abuja	Okote	Okote	Okote	Okote
21	UWENZEH Ikechukwu	M	POTTE	Abuja	Uwenzeh	Uwenzeh	Uwenzeh	Uwenzeh
22	Abdulrazak Usman M.	M	MREP/SES	Zamfara	Abdulrazak	Abdulrazak	Abdulrazak	Abdulrazak
23	Amma Moh'd Ayo	M	SEMA	Zamfara	Amma	Amma	Amma	Amma
24	Isah Muhammad Isah	M	ADP	Zamfara	Isah	Isah	Isah	Isah
25	Ibi C. Yusuf	M	NDFF	Katsina	Ibi	Ibi	Ibi	Ibi
26	Usman Tai Dutsi	M	MOANR	Katsina	Usman	Usman	Usman	Usman
27	Ahass - Ahass	m	NEMA	Abuja	Ahass	Ahass	Ahass	Ahass
28	Chinachi Anyagwu	m	Sci	Abuja	Chinachi	Chinachi	Chinachi	Chinachi
29	Abubakar Hassan	m	IFRD	Jigawa	Abubakar	Abubakar	Abubakar	Abubakar
30	Onutt Ikwon Cent	M	FMARD	Abuja	Onutt	Onutt	Onutt	Onutt
31	CLARA KWALA	F	SEMA	Borno	Kwala	Kwala	Kwala	Kwala
32	Abubakar Umar	m	Budget	Bauchi	Abubakar	Abubakar	Abubakar	Abubakar
33	Umar Onyemaechi Umar	m	NOFICK	KATISINA	Umar	Umar	Umar	Umar
34	Labaran Salisu	M	Budget	Jigawa	Labaran	Labaran	Labaran	Labaran
	Joseph O. Shonire	wife	Katsina	Shonire	Shonire	Shonire	Shonire	Shonire