

FINAL REPORT
MARCH 5, 2018



SECTOR MINIMUM EXPENDITURE BASKETS

HEA RESILIENCE STUDY

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Sector Minimum Expenditure Baskets

Executive Summary

Everyone has the right to a standard of living adequate for the health and well-being of himself and his family [ibid] including food, water, clothing and housing. *United Nations, Universal Declaration of Human Rights Article 25[1], 1948*

States are obliged to assist in securing the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development. *Convention on the Rights of the Child, Article 27, 1989.*¹

This study came about in answer to a global review of HEA which called for a deeper analysis of household spending in key sectors concerning the welfare of children (such as health, education, sanitation and hygiene) which could be compared with the cost of meeting sector standards. In response, Save the Children International, with funding from ECHO through the HEA Sahel Project, commissioned FEG to design a process to calculate sector minimum expenditure baskets and to modify HEA tools to incorporate MEB resilience analysis.

The premise of a **sector** MEB is that minimum acceptable standards for each sector have been set, and agreed to, by international agencies and national governments for policy and humanitarian intervention purposes, and that these accepted standards can be used to decide what items go into the sector baskets and in what quantity. The total cost of the sector MEB represents the minimum expenditure (or minimum income) required to meet standards of well-being.

The design and implementation of the sector MEB process was pilot tested in one rural livelihood zone in Niger and one rural livelihood zone in Senegal. A recent urban baseline assessment in Diffa town provided a further opportunity to test the application of the MEB process in HEA baseline assessment and analysis. The goal is to continue to fully integrate the sector MEB analysis into the HEA process from baseline assessment to outcome analysis and resilience modelling.

The results show that the MEB threshold provides a higher-level economic goal for development planners. As such, it is a measure of resilience, or, **economic robustness**, that takes in concepts of well-being and dignity as well as economic and physical health. This concept of robustness is different from the definition of resilience as a capacity to withstand shocks. The sector MEB threshold itself is the sum of a range of individual items that are allocated to 9 different sector baskets. Finalising the sector baskets requires detailed discussions with local partners to ensure that there is consensus and transparency about the **composition** of each sector basket.²

¹ See L. M Jean Baptiste and J.M. Abela, 2016: *A Minimum Essential Budget for a Decent Living – 2016*. CARITAS Malta, 2016.

² The 9 sectors include: shelter and home; WASH (water, sanitation and hygiene); clothing; education; health; livelihoods; tax and community contributions; protection and security; and the healthy diet food basket. Ideally,

The results from this pilot work on calculating and applying a sector MEB threshold for HEA resilience analysis will support the Cash Learning Partnership (CaLP) in their countries of operation. CaLP is engaged in an ongoing effort to develop the MEB as the first step in designing multi-purpose cash transfers. In addition, this pilot study will support CILSS in their resilience analyses using RIMA tools. The MEB results will also strengthen HEA analysis by providing a threshold for development planning that acknowledges the real cost of meeting minimum sector standards in health, education, water, hygiene, sanitation, and so on. Households who fall below the MEB threshold, and who have a MEB resilience score of less than 1, earn an income that is neither sufficient to protect their livelihood in bad years nor sufficient to meet minimum living standards in good years. To this end, we can state that such households are neither **resilient** to common shocks nor **robust** enough to meet minimum standards of well-being.

This report is organized into four main sections.

Section 1 – The background section looks at the reasons for carrying out a MEB study; what the MEB study is expected to achieve; how it was implemented; what different terms in the MEB literature mean; what other MEB studies have been implemented around the world; and what issues emerge in the literature review.

Section 2 – The second section describes the steps required to calculate a sector MEB. There are 6 steps in total including an analysis of the sector MEB threshold against households' *total income*.

Section 3 – The third section investigates the sector baskets in detail in context of a pilot study in Niger (NE04 Mainé Sorora Diffa agropastoral livelihood zone). This section also includes an example of how to use the MEB threshold for resilience analysis, drawing on case study material from Senegal and Niger. Using sector basket data for a more specialized analysis of child-focused spending is illustrated with recent data from an urban baseline in Diffa, Niger.

Section 4 – Next steps in integrating MEB analysis into ongoing HEA work in the Sahel region are briefly outlined at the end of the report.

Operational Guidelines to Calculating a Sector MEB Threshold were prepared as part of this study and are available at the SCI Regional Sahel office as a companion document to this final report.

the MEB threshold balances the cost of a minimum standard of well-being that is founded on sector standards but that also falls within the income range of some households in the local community. If a threshold is too high, a re-evaluation of the quantity or quality of some items in the baskets is needed.

Table of Contents

Executive Summary	1
Section 1 – Overview	3
Background	3
Purpose	4
Methodology	5
Defining the Terms	6
Literature Review	8
Section 2 – How to Calculate a MEB	12
A 6 Step Process	12
Section 3 – Analysis	17
The Sector Baskets – Diffa (Niger) Case Study	17
Reference & Current Year Changes – Niger Case Study	27
The MEB Threshold & Resilience Analysis – Niger and Senegal	28
HEA Outcome Analysis and the Sector MEB	32
Child-Focused Spending – Diffa town (Niger) Case Study	34
Section 4 – Next Steps	37
References	39
Annex 1 – The Sector Standards	40
Annex 2 – The Sector Baskets	46
Annex 3 - Household Expenditures & the Sector Baskets	47

Section 1 – Overview

Background

The development of sector Minimum Expenditure Baskets (MEB) was carried out for the HEA Sahel Project of Save the Children International (West Africa office) between July 2017-January 2018. The study involved 3 phases including tool development (phase 1); pilot testing (phase 2); and analysis, and reporting (phase 3). The study was commissioned to provide greater analytical capacity within the HEA framework to measure the resilience of households. The MEB approach was proposed for two reasons. First, a global study by SCI noted that there is a need to build on the standard HEA framework in certain contexts to “*better understand how poverty and shocks could impact children’s well-being in terms of education, health, protection and nutrition, based on households’ expenditures and economic capacities*”. In addition, within the Sahel region, the Cash Learning Partnership (CaLP) is planning a coordinated effort to calculate a MEB in 4 countries (Mali, Niger, Chad and Cameroon). The MEB threshold is seen as a critical first step in designing a multi-sectoral cash transfer (i.e., the multipurpose cash grant). Save the Children’s initiative to design a MEB in Niger and Senegal was thus a response to a global study and a response to regional initiatives. The MEB study will also support CILSS efforts in the Sahel region to undertake resilience analysis by providing a new tool within the HEA analytical framework.

A Minimum Expenditure Basket is defined as a bundle of goods and services that provides a decent and dignified standard of living. The MEB represents what people need to pay to meet minimum living standards. The total cost of the basket sets the **threshold** of minimum expenditure (or minimum income) for a healthy, dignified life. Thus, the question becomes “what level of income is needed for a minimum acceptable standard of living”?³ The MEB discussion often leads to discussions about poverty lines, a minimum income standard and/or a living wage. The MEB threshold is typically constructed per person or per household but costs can be separated out by age and gender if an analysis of children’s wellbeing, for instance, is required.

Purpose

The overall purpose of the study is to identify a sector MEB threshold that can be integrated into the HEA framework. This will deepen the current analytical capacity of HEA in the Sahel region by adding a measure of household well-being and economic robustness.

Key objectives of the sector MEB study are:

- 1) Design an approach to create the MEB threshold; determine the information required to calculate the sector baskets and undertake a pilot test in Niger and Senegal;
 - 2) Adapt HEA forms and tools to incorporate data on sector baskets and to create a sector MEB threshold;
 - 3) Prepare an operational guide to calculating sector baskets and analyzing the data;
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³ MESL/VPSJ, 2017: *A Minimum Essential Standard of Living and A Minimum Income Standard*. Vincentian Partnership for Social Justice / Minimum Essential Standard of Living, Dublin, 2017.

- 4) Review new baseline and MEB data in selected zone(s) in Niger and Senegal and undertake an analysis of household total income against the MEB threshold.

A further objective was assumed by the Save the Children West Africa bureau: to consult and provide feedback with the CaLP so as to integrate the HEA study on sector baskets with the proposed CaLP MEB initiative.

Methodology

The sector MEB study was carried out in 3 phases.

- 1) Phase 1: Design stage including a pilot test
- 2) Phase 2: Field work in two new livelihood zones
- 3) Phase 3: Data Analysis and summary of results

Phase 1 – The design phase included several important elements. First, a literature review provided an overview of approaches to calculating a MEB. There is not one universal method to designing and calculating the MEB, and a selected review of the experience internationally was crucial in deciding what approach to use in the West Africa context. Second, questionnaires at the national level and village level were designed to identify sector standards (or when sector standards did not exist, to identify village standards). Third, a pilot exercise in Niger and Senegal was carried out to consolidate the list of items for each sector basket, based sector standards. Key informants from various sectors were interviewed at the national level (Niamey and Dakar). Interviews at the village level used a focus group approach, targeting households from the poor wealth group.

Phase 2 – Two new HEA baseline assessments were carried out by the HEA Sahel team. The selected zones included one livelihood zone in Niger (NE04) and in one livelihood zone in Senegal (SN13). The baseline assessments followed the standard HEA field approach. However, to facilitate a MEB analysis, detailed expenditure data was collected on education, health, clothes, WASH and household goods as the usual “global” sums make it difficult to compare against sector baskets. HEA data storage and analysis tools were adapted to incorporate additional expenditure information and to allow an analysis of *total income* against the MEB threshold.

Phase 3 - The final phase required an analysis of the new baseline results compared to the MEB threshold as well as a detailed look at poor household expenditure against sector baskets. The results were shared by the HEA Sahel team with partners in Niamey and Dakar. Feedback from these partner consultations will lead to further refinements of the MEB tool. The final phase also included the adaptation of the HEA LIAS (Livelihood Impact Assessment Spreadsheet). The LIAS modification means that in future current year updates to the MEB threshold will be an integral part of HEA outcome analysis (OA). This will improve HEA resilience analysis for both early warning and development planning.

Defining the Terms

Basic Terms

The basic terms used in this report are explained in the table below.

Term	Definition
Minimum Expenditure Basket	The Minimum Expenditure Basket is a basket of goods and services that meet a minimum acceptable level of well-being, good health, safety and dignity. The minimum acceptable level in this case is defined by sector standards.
Components of the Basket	There are two components: (1) the Food basket; and (2) the Non-food Items (NFI) basket.
Minimum Food Basket	The minimum food basket contains food items required to meet the food energy requirement of 2100 kcal per person per day and that are derived from a reasonably diverse, locally-based diet.
Minimum Non-Food Items (NFI) Basket	The NFI basket contains those items that provide a minimum acceptable standard of living according to international and national sector standards
Sectors	A sector is a distinct part of the economy or sphere of activity. Typical sectors included in a MEB are: shelter & household items; water, hygiene and sanitation (WASH); clothing; health, nutrition and healthy diets; education, livelihoods; taxes, savings & credit; transport & communication; and, safety and protection.
Sector Standards	Minimum acceptable standards can be derived from international standards (such as the Humanitarian Sphere Standards) and/or national standards. Food baskets may also reflect community standards and local food preferences as long as they meet minimum nutrient and energy standards. Community standards may help to determine the quality of an item in the MEB.
Poverty Line	The level below which a person or household's income is not enough to cover the cost of basic needs and/or a minimum acceptable standard of living.
Living Wage	A living wage is the minimum income required to meet basic needs. These needs are more than just subsistence (i.e., survival minimum) but instead include the notion of adequate shelter, health, education, clothing, water, food and other incidentals.
Minimum Income	A minimum income is the amount required by an individual or household to cover the cost of a minimum acceptable standard of living.
Resilience	The ability of people, households, communities, countries and systems to mitigate, adapt to and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth (USAID)

Resilience Analysis

Resilience is a concept used to address what resources it takes for households to weather shocks without undermining their economic base, leading to faster recovery back to economic health and viability after the shock. HEA has its own approach to measuring resilience that draws on a well-established analytical framework that has been in use since the early 1990s.

In HEA, the livelihood resilience score is used to assess household resilience (by wealth group) to commonly occurring shocks in the target area. A scenario is run by calculating a problem specification for each key parameter (such as crop production or staple food prices) based on analyses of the impact of past shocks. The scenario includes only those coping strategies that are considered productive (i.e., they are not high-risk or damaging to future livelihood survival). The result is the predicted total income of households in each wealth group which is then compared to the livelihood protection threshold. Households from those wealth groups whose total income is higher than the threshold are deemed resilient because they will have the resources to protect their lives and livelihoods during a shock and thus recover relatively quickly. Households below the threshold cannot protect their livelihoods during a shock and thus will fall deeper into poverty even once the crisis passes. This analysis of resilience using HEA scenario modelling and the livelihood protection threshold allows HEA users to calculate a livelihood resilience score. The resilience score is the ratio of total income after the shock to the livelihoods protection threshold. A score below 1 means that households in that particular wealth group are not resilient to common hazards in their area, and the resulting gap provides a measure of how much income is required to meet resilience goals.

The sector MEB threshold can contribute to the HEA analysis of resilience by providing a higher measure of the resources needed to live at, or above, a certain standard of well-being. In HEA, wealth is defined in relative terms by local communities. Households in middle and better-off wealth groups are viewed as better-off relative to the poor in their communities. However, measured against international and national standards of well-being, these middle and better-off households may fall below the MEB threshold, leading to a closer look at their standard of living and at associated development goals.

The sector MEB threshold can thus contribute to the resilience debate by providing a higher economic standard than the HEA livelihood protection threshold. The sector MEB threshold provides a measure of economic robustness that is more comprehensive than the livelihood resilience score because it takes into account minimum sector standards for health, sanitation, hygiene, shelter, household goods (cooking, lighting, sleeping and being clothed), education, basic livelihood inputs, protection in times of violence, community contributions (“social inclusion”) and a healthy diet. The concept of resilience in the sector MEB threshold is therefore about having the resources to meet minimum standards of **well-being**. Households above the threshold are reasonably robust in a minimum acceptable way. Their resources provide them with advantages that are more likely to provide economic growth and stability in the future. Households who fall below the sector MEB threshold are less robust because without the resources to reach basic standards of health, hygiene, education and so on, they are vulnerable to economic shocks. This concept of resilience, therefore, provides a longer-term commitment to raising incomes to minimum standards of well-being to ensure a more comprehensive “robustness” than is contained in the concept of resilience currently employed for early warning purposes.

Literature Review

Overview

MEB calculations are increasingly being used by agencies involved in cash transfers to vulnerable populations. Their use is not yet widespread but there has been some notable examples of MEB applications in cash transfer contexts in Lebanon, Syria, Turkey and Somalia. Adding to these examples is a small cash study by World Vision in Niger and a longitudinal study in South Africa focusing on food poverty line advocacy work. Outside of the African region, examples from Ireland, Kazakhstan and Bangladesh were reviewed to provide a more global picture.

Country	Who / When	How Used
Lebanon	Enhanced Response Capacity Project 2014-2015, cashlearning.org	A comprehensive toolkit was designed to improve multipurpose cash grant programming for Syrian refugees in Lebanon. The guidelines noted that designing a MEB in a humanitarian crisis requires consulting with affected population as well as referring to international standards (such as the Humanitarian Sphere Standards and International Humanitarian and Human Rights Law). The minimum consumption standards set by the MEB become the foundation for sector-specific interventions and can inform multipurpose cash grant values in order to meet sector-specific objectives.
Turkey	World Food Programme, 2016	Establish targeting criteria and a MEB to inform a basic needs approach to programming for Syrian refugees in Turkey. Distinguishes between a survival MEB (the SMEB is the monthly cost per capita which is the minimum needed for physical survival); and the MEB (the monthly cost per capital what allows a person to live a dignified life).
Syria	Cash-based Responses Technical Working Group, 2012	Developed a standardized approach to calculating the value of a survival MEB for cash-based programming in Northern Syria. It was recommended that the total value of the SMEB not drastically differ from a household's monthly basic need expenditure to avoid conflict between host and refugee communities.
South Africa	PACSA, 2017 (annual since 2012)	36 food items common to low-income households are monitored monthly on the same day between 21-24 th of every month from the same 6 retail stores most frequented by low-income households. Analysis focuses on how many items increased in price by more than 5% and what was the average price increase, especially staple grains and core 4 foods. Analysis also addresses the impact of price increases on the food basket of low-income households. Changes in their food basket are compared to the cost of a minimum nutritional food basket, focusing on the cost a feeding a child a basic nutritious diet. Findings from this South African-based food monitoring project inform the Pietermaritzburg Agency for Community Social Action's response to the Food Poverty line and Child Support Grant levels.

Country	Who / When	How Used
Ireland	Minimum Essential Budget Standards Research Centre, Dublin, 2017 (Vincentian Partnership for Social Justice).	MESL monitoring assesses the average weekly cost of a comprehensive basket of goods. The basket of goods includes food, clothing, health care, personal care, household goods, communication, education, transport, utilities (cooking fuel, lighting and heating), rent, water and “social inclusion”. There are over 2 000 items in the basket that together meet the physical, psychological and social needs of the population. The composition of the basket is derived from a “negotiated social consensus on what people believe is essential for an acceptable minimum standard of living”.
Somalia	FSNAU / Somalia Food Security Cluster, 2017	The FSNAU developed a MEB consisting of a minimum set of basic food items comprising 2 100 kcal/person/day plus a minimum set of basic non-food items necessary for survival. The calculated cost of the MEB is for a household of 6-7 members. The MEB is monitored and the results inform cash transfer values in Somalia. This MEB calculation is based on a survival basket where the food basket accounts for 70-80% of the total MEB
Bangladesh	CPD Bangladesh & Berenschot International, 2013	The objective of the research in Bangladesh was to provide a definition of a minimum wage based on globally accepted norms, and to suggest a method of estimating the minimum wage. The case study observed that there are three methods of measuring poverty to inform Minimum Wage debates, including the Government’s upper poverty line, the purchasing power of low-income households, and the cost of a model diet to meet essential energy and nutritional needs.
Kazakhstan	Ministry of Labour + Statistical Agency, 2006	The MEB measurement methodology was updated to allow for improved measure of a subsistence minimum to inform poverty thresholds. The MEB is calculated on a per capita basis by gender and age (i.e., 6 different population groups).

Key issues

1) 2 Approaches to calculating a MEB

- (a) **Indirect method** – This method applies a more rapid approach to calculating the MEB. It draws principally on secondary data and it is called the indirect approach because it calculates the non-food items basket by deducting food costs from total expenditures.

The first step in this approach is to define in detail the minimum acceptable food basket. Items are selected for the food basket, quantities are defined and the cost for each item, as well as the total cost for the full food basket, is then calculated. The next step in the indirect method is to review national household surveys or other household economic data to determine the proportional importance of food costs to total expenditures. This review focuses on the lower percentiles of the population (i.e., the poor). Once the proportional importance of the food basket is determined, the non-food items basket can be calculated. In Georgia, for instance, a review of national data showed that food costs were typically 40% of the poor households’ total expenditure. Hence, the non-food

items basket was allocated to 60% of the MEB.⁴ In Somalia, the proportional importance of the food basket in the sector MEB was 70-80% which is likely more reflective of costs and expenditures in much of the African context.

- (b) **Direct method** – The direct method relies on field work to determine the composition of the MEB (i.e, the food basket and the non-food items basket) as well as to determine the value of each item in the MEB (quantity x price). The direct method can be more time-consuming than the indirect method because it requires primary data collection as well as a consensus about the composition of the total MEB prior to finalization. Focus group and key informant discussions to determine sector standards or “benchmarks” as well as market-place visits to collect price data are important steps in this method. Although the direct method can be particularly costly in countries with a very extensive list of non-food items, nonetheless, a 2012 ILO study reported that “half of the respondent countries of the United Nations Statistics Division Survey followed the direct approach” (ILO 2012: p.11).

2) Survival MEB or Standard MEB

The Jordan and Lebanon case studies involved calculating a MEB to inform humanitarian interventions for Syrian refugees. In both cases, a distinction was made between a survival MEB and a standard MEB. The standard MEB is the cost required to achieve a dignified life. The survival MEB is the cost required to meet basic survival needs.

These difference between *survival* and *standard* are manifest in two ways:

- (a) **Composition of the baskets** – The standard MEB includes items from more sectors. For instance, the standard MEB adds in the cost of utilities, education, health, household items, transport and communication. The standard MEB may also include items that are culturally specific and key to a dignified life, such as burial savings, or other social contributions. By contrast, the survival MEB only includes very basic needs such as shelter, water, sanitation items and food.
- (b) **Value of the baskets** – The standard MEB includes a more diverse range of food items in the food basket. In the non-food item baskets, higher amounts of many items are included.

3) Calculating a MEB in humanitarian contexts

A MEB calculation that is based on meeting certain living standards may be too broad for effective targeting in refugee and/or crisis situations. Thus, if the MEB calculation is too high, too many people will fall below the threshold, and targeting will be too inclusive. Consequently, in humanitarian and refugee contexts, (such as in the case of Syrian refugees in Turkey), the MEB calculation was based on the actual spending by the poor rather than on the estimated cost to reach a certain standard of living.

In the Turkey case study, the starting point in their MEB design was to value a bundle of food items typically consumed by the poor at local prices. The design team then added a specific allowance for non-food expenditures. This non-food items basket was consistent with the spending by the poor.

⁴ In statistical terms, in Georgia, analysts used regression analysis and/or averages to calculate the Engel’s coefficient in order to determine the cost of non-food items as well as the total MEB value.

4) Calculating a MEB in non-crisis contexts

A MEB that is calculated in non-crisis contexts is often used as a proxy for the poverty threshold. The MEB, therefore, is a calculation of the cost of meeting minimum acceptable standards of living. The value of this type of MEB calculation is that it shows the real gap between what poor households earn and what it costs to meet a minimum standard of living. These results feed into advocacy around living wages, minimum income standards and other social policy tools that can raise people above the poverty line.

5) Per person or per household MEB – Equivalence scales

MEBs can be defined on a per person or per household basis. Per person calculations are typically based on a single working adult. Per household calculations are more complex because they need to consider the age and gender of people in the household. Costs differ for people of different ages -- food for a toddler, for example, is less expensive than food for a growing teenager, and education costs for a secondary-school student are typically more costly than for a primary school student. Another consideration is that some costs when shared by multiple people are less expensive than for one person. Rent or the purchase of a cooking pot are clear examples of the effect of shared costs. Therefore, although the needs of a household increase with each additional member, some costs can be shared and this “economy of scale” means that the MEB calculation for a household of 8 is less, per person, than the MEB calculation for a single person household. The “equivalence scale” tool was designed to tackle this problem, and it allows the user to adjust costs for additional household members. In Canada, for example, the equivalence scale is 0.4 for an additional person in a household.

In the Lebanon and Jordan case studies of Syrian refugees, the MEB cost was calculated in different ways. In Jordan, the MEB was calculated for a set range of households of different sizes. In Lebanon, a basic MEB was calculated for a household of 5. In Ireland, a different approach was used. The MESL (Minimum Expenditure Standard of Living) gets around the “equivalency” discussion by defining the cost of a basket of goods for different household types based on an analysis of costs by gender and age. Their system includes 6 different household types. In addition, MESL offers a Minimum Income Calculator, a tool which enables individuals to assess how much income their particular household type needs based on the cost of their minimum needs.

6) Inter-Country and Intra-Country Differences

The MEB threshold should be calculated separately for urban and rural populations. Urban populations face different costs due to market price advantages but also due to additional expenditures, such as housing/rent and utilities.

MEB thresholds will also differ from one country to the next. It is obvious that prices will not be the same from country to country depending on local currency values and national market systems. But the other key factor is that services are delivered through different types of systems. For example, health services in one country may be available free of charge but in another country the same health care may be provided on a fee-for-service basis. Another consideration is that some standards may differ from one country to another and this affects the type (quality) of some items and the amount. The clothes basket and/or the community contributions basket are examples of sectors that are shaped not just by international standards but also by standards at the national and community-level.

Section 2 – How to Calculate a MEB

A 5 Step Process

Overview

Calculating a sector MEB involves a number of steps. Key steps in the process are described in the table below.

Step	Key Activity
Step 1	<u>Define the composition of the MEB</u> – Review sector standards (international and national). Develop a list of items that are required to meet these standards.
Step 2	For each item, <u>quantify how much is required</u> to meet the minimum acceptable standards in the sector. The process requires addressing which items are shared within a household, and how much is needed per household as well as per person.
Step 3	<u>Collect prices for each item</u> identified in the sector MEB list. Prices must be specified by unit (i.e., per day, per item, per year and so on). When prices are collected, attention must be paid to seasonal price differences for certain items, and to the different varieties and quality of items (local vs imported for instance). The gender and age of people in the household also needs to be defined for precise price monitoring.
Step 4	<u>Calculate each sector cost</u> of the MEB. Ensure that the composition of a typical household has been defined because the number and age of girls & boys, men & women in the household will affect the calculation of health, education, hygiene and clothing costs. <u>Calculate the total MEB cost.</u> Add the sector costs to derive the total sector MEB cost. This calculation represents the cost of those goods and services required to meet certain minimum standards of a healthy and dignified life.
Step 5	<u>Analyse the total sector MEB cost</u> compared to actual household expenditures. This should be a comparison of same year expenditures and costs. Per person or per household calculations can both be done, and all assumptions must be explicit. (i.e., the household size must be identified).
Step 6	<u>Monitor sector MEB costs annually and provide current year updates.</u> The sector MEB current year analysis can be combined with HEA Outcome Analysis to provide an assessment in any given year of household <i>total income</i> (per wealth group) compared to sector MEB costs.

A detailed manual, the *Sector MEB Operational Guidelines*, provides a step-by-step guide to the process of calculating a MEB by sector. Below is a short summary of the main activities at each step of the process.

Step 1 – Define the Sector Standards

Whose Standards

The premise of a MEB is that it defines the minimum expenditure or minimum income needed to pay for a basic standard of well-being, health and dignity. Certain standards must be chosen, and, in this case, there was a two-step process: (i) align the baskets to the higher standards when comparing international, national and local; and (ii) include national and/or local standards when there were gaps in the international standards as long as the national and/or local standards were not too low.⁵ The common source for the international sector standards was the Sphere Project's *Humanitarian Charter and Minimum Standards in Humanitarian Response*. ***The MEB calculated here represents the total expenditure needed to cover the standard (that is to say the basic needs) for each sectors. This expenditure is different from the amount that the household is willing to spend for each sector during a normal year or after the shock.***

Example

Two examples of how the sector standards were defined are provided below. The two examples are illustrations of the water sector standards and the standards for lighting, cooking and food storage. **Annex 1** contains the details for all of the sector standards included in this MEB.

Table 1 – Water Sector Standards (WASH sector)

⁵ Focus group discussions were held at the village level to determine local standards. At the national level, key informant interviews were held to determine national standards. Where there were multiple standards for a sector, the higher standard was chosen.

Sector	Sphere International Sector Standards	National Sector Standards
WASH		
Water		
Water - drinking	3 L/person/day for drinking + hand washing	Senegal -2-5 L / day is required. Payment depends on pump availability.
Water - other use	7.5-15 l / person / day to cover all needs for drinking, cooking, bathing and hygiene.	Minimum of 1 x jerry can (@ 15-20 L) / day / pers for all use. Cost is 0,275 FCFA / L
	Quality of water should be free from risk of water-borne disease. Water purification or treatment tablets may be needed.	Niger - 2-5 L / day is required for drinking water. Payment depends on pump availability.
	The standard for water access is no more than 500 metres distance from water source to household (and time to collect water not more than 30 minutes).	Minimum of 1 x jerry can (@ 20-25 L) / day / HH for other use
Water containers	2 x 10-20 L water container per household to transport water and to store water.	

Table 2 – Lighting, Cooking and Food Storage Sector Standards (Shelter & Home sector)

Sector	Sphere International Sector Standard	National Sector Standards
SHELTER and HOME		
Utilities & Household Goods		
Lighting	1 x lantern per household and candles with matches or torch and batteries	Niger + Senegal- Chinese torches + batteries are most common. Candles are also available.
Cooking	Stove (with good ventilation and energy efficient)	New stove is not included in the MEB.
	Fuel / firewood with dry storage	Niger + Senegal- Firewood is most common. It is collected free from the bush.
	2 x cooking pots with lids	1-2 x cooking pots per year
	1 x tray / basin to prepare and serve food	Spoons, calabash, ladle, cup, kitchen knife
	1 x knife + 2 cooking / serving spoons)	
	1 x plate, spoon, glass or cup per person	
	Grinding fees (see food section on whole grains) - whole grains are preferred in terms of their nutritious value and these have to be ground.	Niger + Senegal- No set standards except the reference in Sphere on the value of whole grains.
Storing food	Unit to store food that keeps it free from contamination and parasites and is in a cool, dry place.(<i>UNHCR</i>).	Granary not included in the MEB. Include a food storage container.

In calculating a sector MEB, it is important to show assumptions. Being clear about assumptions leads to transparency in analysis. A sector MEB calculation, therefore, should be accompanied by a note that justifies the list of items.

Step 2 – List and Quantify Items in the Sector Baskets

Using the Standards to Create a List of Items

After identifying the standards for each sector, Step 2 involves finalizing a list of items in each sector basket and quantifying how much of each item should go into the basket. Many of the standards found in the Sphere Handbook had a correlating item (such as the number of liters of water required per person per day). These items could then be listed directly and the quantity per person and per household determined. The decision to calculate the initial sector MEB by household was to recognize that a sector MEB per person would be the most expensive as a single-person household does not benefit from certain shared costs and economies of scale. Equivalency rates were not used although a simple per capita MEB threshold can be calculated by dividing the total MEB value by the household size. The household size is determined by the average household size of the poor wealth group in any individual livelihood zone. The Niger case study had a household size of 8 and in Senegal, it was 11.

Some standards, such as the shelter standard which requires a well-ventilated, well-lit, low fire-risk home with a shady area for cooking, were not easy to convert into specific items. Moreover, other standards, such as the cooking standard which requires an energy-efficient stove in a well-ventilated area, mean larger investments. It was decided not to include large, one-off costs in the sector basket.

In summary:

- Each standard was converted into an item (or items);

- The quantity required for each item was recorded (per person and per household, using the average households size of the poor as the unit of measure);
- Costs for one-off items such as furniture or appliances were not included;
- Recurrent costs (i.e, items bought daily, monthly or seasonally) are included. Also included are smaller items bought annually or bi-annually. For kitchen items and tools, it is assumed that their replacement is every two years so as to ensure standards of quality and safety (thus when the quantity shown is 0.5, it means 1 new item every 2 years);
- Items that can be accessed for free (either because they are supplied by the government or by humanitarian agencies, or they are gathered for free and still meet quality standards) were not included in the basket. Prices may be monitored outside of the basket.
- Items that are difficult to standardize (such as transport or grinding fees) were not included.

Example

An example of the finalized list of items for the shelter and home sector basket is shown below. The full list is provided in **Annex 2**.

Table 3 – Finalised list – Basket of Household Items (Shelter and Home Sector)

Final list	Quantity (HH 8)	Additional Items to monitor
Lantern	0.5	Firewood
Torch/flashlight	4	Mosquito net
Batteries (packet)	12	Grinding fees (per kg)
Iodised salt (packet, xx grams)	12	
Cooking pot	1	
Cooking spoon / serving spoon	0.5	
Kitchen knife	0.5	
Ladle	0.5	
Serving bowl + serving tray	0.5	
Large tumbler	0.5	
Container to keep food fresh	0.5	
Storage to protect food from contamination		Local granary
Sleeping mats / floor mats – large size	2	
Baby blanket	1	

Step 3 – Collect Price Data

Seasonality, Quality, Market, and Other Factors

Before collecting the price of items in the sector baskets, there are five variables to consider first:

- Quality of the item (local; imported; new; second-hand, and so on)
- Market (urban market center; sub-district market hub and so on)
- Seasonality (food prices should be the average price during the main period of food purchase).

- Household composition: the age and gender of household members affects the price of items from clothes, to school level, to health care costs

Example – Clothes Basket

Table 4 – Clothes Basket – Specifying the Price per item by market, quality, season and age/gender

Item	Market	Quality	Season	No. per HH per year	Price (FCFA)	TOTAL (FCFA)
Clothes, child 0-5 years	Mainé	new, local	June or Sept	2	2,500	5,000
Shoes, child 0-5 years	Mainé	new, local	June or Sept	2	500	1,000
Sweater/coat, child 0-5 years	Mainé	new, local	June or Sept	2	2,000	4,000

Calculating the Cost of the Food Basket

Calculating the cost of the food basket follows the same the process as calculating the cost of the non-food baskets. First, standards for a healthy diet are established by determining what proportion of the diet are filled by the basic food groups (cereals/roots/tubers; protein foods; fat; and vegetables and fruit). The healthy diet food basket is not the same as the Cost of Diet which addresses food diversity and nutrient diversity. However, the MEB food basket is meant to represent a healthy diet in terms of reasonable dietary diversity, drawing from food items available locally. If a Cost of Diet has been completed in the area under study, the results can be substituted for the food basket in the sector MEB.

Once the standard is established, selected food items are listed based on patterns found in the local diet. A spreadsheet tool helps to calculate the kilocalorie contribution of each food item per person per year, and the kilogrammes thus required per year. Once the per kilo price is entered in the spreadsheet, the total cost per household per year is calculated. To ensure rigorous price data, it is important to note what months poor households typically purchase each food item, and then enter the average price over that period of purchase.

In summary:

- The food basket in the sector MEB is a more limited calculation than the Cost of Diet. The food basket focuses on dietary diversity and does not calculate nutrient values.
- When establishing prices, key variables are: market, quality (imported/local); and season.

Step 4 – Calculate the Total MEB Value

Process

The estimation of the total MEB value involves a simple multiplication of the number of each item needed per household per year by the price of the item. The annual cost of each item (per household) are then added to reach a sum for each sector basket. The total value of the MEB is the sum of the 9 sector basket costs.

Example – Diffa town (Niger)

Table 5 – Calculating the total MEB Value

Sector	Per HH 8 per year
	Cost - FCFA
WASH	103,130
Shelter and Household Items	116,950
Clothes	57,000
Education	18,000
Health	22,000
Agriculture and Livestock	1,680
Tax and Community Contributions	2,000
Protection and Security	0
Healthy Diet	1,037,317
TOTAL	1,358,077

Step 5 & 6 – Baseline and Outcome Analysis**Applying the MEB Threshold**

A sector MEB calculation provides a measure of the resources required for a basic standard of living. For the baseline and outcome analysis, the MEB threshold is compared to the *total income* of households (by wealth group) to estimate how many households fall below the threshold, and what is the gap in their resources. This analysis is conducted for the baseline year and the current year. The results will inform development programming as the MEB threshold provides a target minimum income for well-being, health and dignity in the target area.

A sector MEB baseline analysis begins with a review of each sector basket compared to actual household expenditures (by sector). The second step is to compare the sector MEB threshold to household *total income* and convert this outcome into a MEB resilience score. The next section of the report shows how to apply this analysis using case studies from two livelihood zones (LZ) in Niger (Diffa town and Mainé Sorora Diffa / NE04) and one livelihood zone in Senegal (SN13 livelihood zone).

Section 3 – Analysis**The Sector Baskets - Diffa (Niger) Case Study**

A new rural HEA baseline in the Diffa Region (Niger) provided an opportunity to compare recent household expenditure data with individual sector basket costs. The rural Niger baseline covered 12 representative villages from several départements (Mainé-Soroa, Diffa, Goudoumaria, Bosso, N'guigmi, Gouré, Mirriah, and Damagarama Takaya) which are located in the far south-east of Niger near the border with Nigeria. This livelihood zone is characterized as agropastoral. The staple crops are millet,

sorghum and cowpeas with some income being generated from the sale of sesame. Other cash income sources include livestock sales, local labour, migratory labour, remittances and small business and/or petty trade. Since 2014, many refugees who have fled the violence of the militant group, Boko-Haram, in northern Nigeria, have settled in the Diffa Region. This has led to attacks by Boko-Haram in Niger, and further disruption to the local economy. Drought is also a recurring hazard in this dryland area. Furthermore, malnutrition is a chronic condition in many areas of Niger, and access to education has been highlighted by humanitarian agencies as a challenge facing many children in the country.

The reference year for the new baseline was October 2015-September 2016. This reference year covers a full **consumption** year. October marks the start of the harvest and thus when households start to consume their own-crops. September marks the end of the annual lean season just prior to the new agricultural harvest. The 2015-2016 reference year was characterised by relatively good crop production. However, migratory labour and remittances had declined due to a weaker Nigerian Naira and the crisis in Libya (both are destination countries for Nigerien migrant labourers). On a positive note, cash transfers and food inputs had reportedly led to fewer households being classified as “very poor” compared to the old baseline results.

The standard HEA baseline process was adjusted to incorporate the additional information needs of a sector MEB resilience analysis. In practice, this meant that field teams collected more detailed expenditure data on household items, education, health and clothing. Typically, these sector expenses are reported as a global sum. The additional information needs of a sector MEB analysis add more time to the HEA Form 1 (district key informant interview), Form 2 (market survey) and Form 4 (household representative interviews) but should not require more than an extra 1-2 days in the field as well as 1 additional day for the sector MEB analysis.

In the case study that follows, the sector baskets will be examined in detail, addressing two key issues:

- (1) **Priority expenditures** - The analysis will highlight those goods and/or services that households choose to buy as their priority expenditure.
- (2) **Expenditure Gaps** - The analysis will highlight the gap between what households earn and the income required to meet basic standards of health and well-being. The gap analysis will expose those goods or services households cannot afford to buy to meet sector standards.

The final section will compare households’ total annual food + cash income (*Total Income*) with the total MEB threshold. This analysis will use the following concept:

- (3) **MEB Resilience Score** – The MEB resilience score is based on the MEB threshold which is a higher-level goal than the livelihood protection threshold and livelihood resilience score. The MEB threshold includes a broader range of sectors, a higher quantity of goods and a more diverse diet than the livelihood protection threshold.

The analysis is based on some assumptions that need to be clarified, including:

- (1) The reference year for the Niger and Senegal baseline data is 2015-2016 whereas the MEB price data is from 2017. According to the IMF, the inflation rate in Niger was 1% in 2015; 0.3% in 2016; and 1% in 2017. MEB data has been adjusted by deflating sector costs back to 2015-2016 at the adjusted rate of 0.987. This is a simple albeit a crude approach. A more sophisticated approach would investigate month by month inflation data in order to refine the calculation.
- (2) A rough per capita cost was calculated by dividing each sector basket cost by 8 and 11 (the average household size of the poor wealth group in NE04 LZ Niger and SN13 LZ Senegal respectively). The per capita calculation facilitates an analysis of the sector baskets by wealth

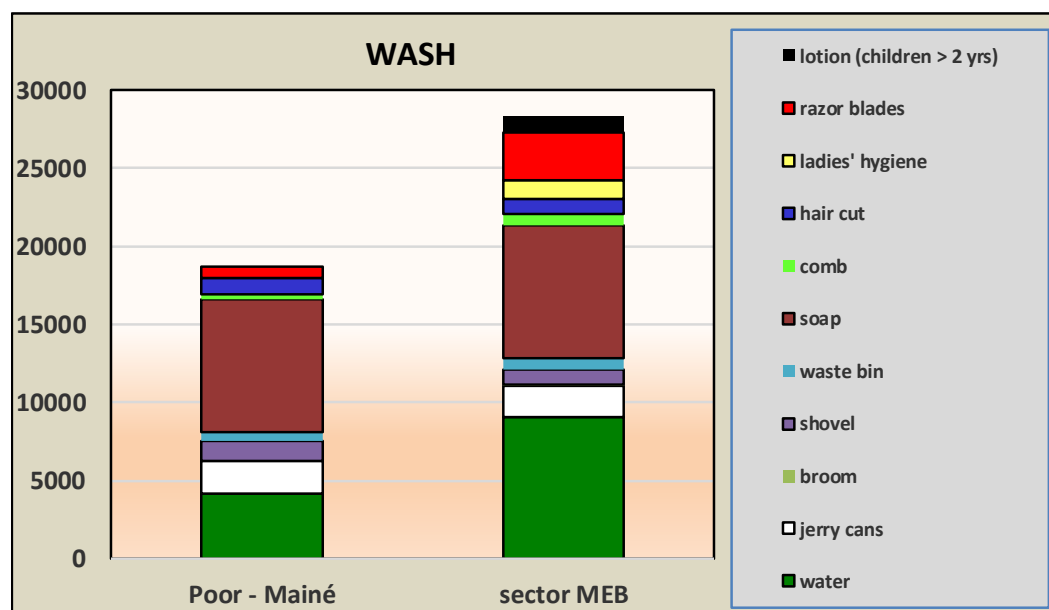
group. Note that in HEA, the *total income* calculation by wealth group is already adjusted to the average household size of the poor and thus no additional per capita calculations were required for this particular part of the analysis.

A further point to note is that the scale in each graph is different and so what looks like a major gap in one sector basket graph may not in fact be a major expenditure gap. See **Annex 3** for individual sector tables showing household expenditures and the sector baskets. Individual sector basket results can also be seen in a more global perspective in the *non-food basket* summary results (figure 7 & 8).

Wash Sector Basket (Water, Sanitation and Hygiene)

WASH Sector	
Initial Assumptions	In the initial sector basket, the cost included paying for water for one full year.
Rationale	Better quality potable water comes from hand pumps and constructed wells. This water is usually accessed on a fee-for-service basis (in rural Niger the cost is typically FCFA 0.42 / litre).
Adjusted Result	The adjusted sector basket includes the cost of water for 6 months only. It is assumed that for 6 months of the year, the rural community will access reasonably good quality water from natural sources.

Figure 1 – Adjusted WASH Sector Costs and Poor HH Expenditures (FCFA/HH 8/year) – NE04 LZ Niger



The results illustrate two important findings:

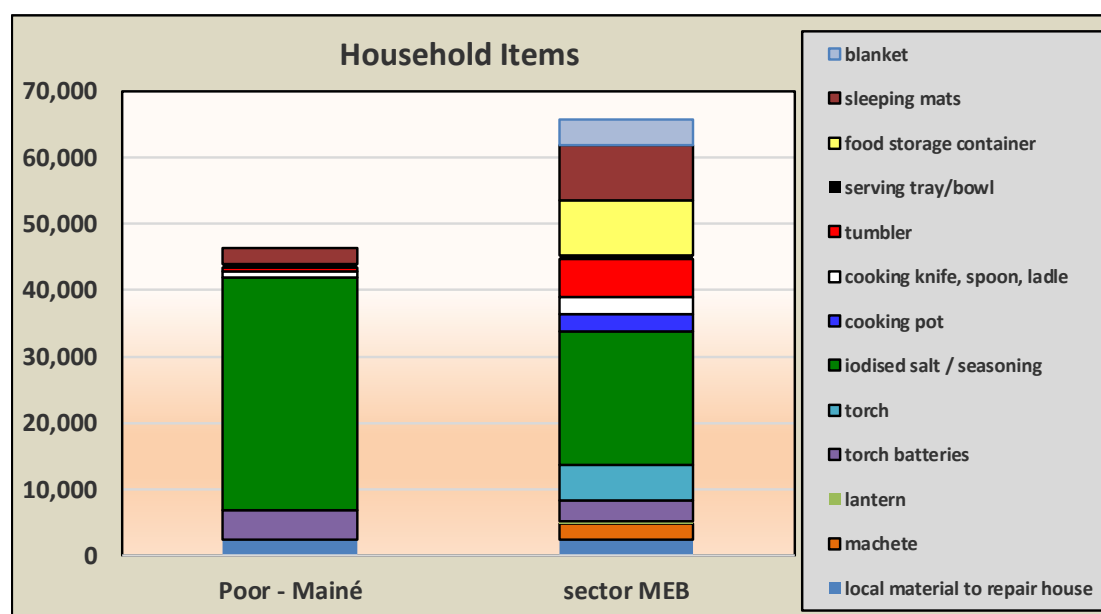
- 1) **Priority Expenditures** - Poor households are typically buying sufficient **soap** compared to sector standards. Soap is a clear priority expenditure even for the poor. The poor also spent more on water containers than was included in the adjusted sector basket.

- 2) **Expenditure Gaps** - Actual spending on water by the poor was lower than the *adjusted* sector standard. One reason is that water is often collected from natural sources without paying a service charge due to either lack of funds to pay for potable water or due to the poor availability of safe water from a constructed well or hand pump.⁶ Other sanitation and hygiene items that the poor were not able to afford included a broom to manage waste and personal hygiene items (such as baby lotion to prevent skin rashes and dry, cracked skin; feminine hygiene goods; and razor blades).

Shelter & Home Sector Basket

Shelter & Home Sector Basket	
Initial Assumptions	In the initial sector basket, the cost for paying for new items every year was included. Only small items with recurrent costs (daily, monthly, annually) were added to the basket. Major one-off purchases (furniture, stove, granary) were not included.
Rationale	Items for cooking, lighting, sleeping, and repairing homes are used daily and will therefore need replacing every year.
Adjusted Result	The adjusted sector basket includes the cost of replacing old items with new items every 2 years. Although used daily, arguably kitchen utensils, sleeping mats, blankets, <i>machete</i> and a lantern and/or torch will last for 2 years before needing to be replaced (for health and safety reasons).

Figure 2 – Adjusted Shelter & Home Sector Costs and Poor HH Expenditures (FCFA/HH 8/year) – NE04 LZ Niger



⁶ In each country, the final WASH sector basket cost will depend on whether there is a single, common source for drinking water and water for domestic use. In addition, water costs will depend on whether payment is seasonal or annual. This decision will be determined by the quality of water available to local communities from natural sources compared to constructed water sources.

The table above compares actual poor household expenditures from 2015-2016 with the estimated cost for the shelter sector basket (adjusted to 2015-2016 prices). In the case of the shelter and home sector, these standards represent those items that allow for a minimum acceptable standard of lighting, heating, cooking, sleeping, and home repair (i.e., after seasonal storms). In terms of kitchen items, the basket includes those items required to cook, serve, eat and store food according to health and hygiene standards. In urban areas only, the shelter sector basket includes utilities and rent.

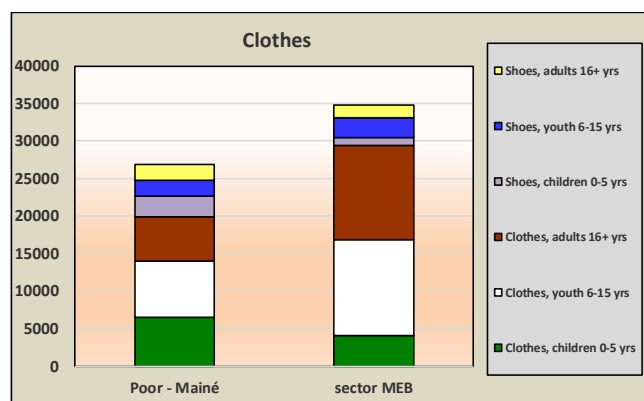
Although the sector basket includes only a very basic list of household items, the results show some major differences in actual expenditures and sector basket costs.

- 1) **Priority Expenditures** - Poor households prioritized their spending in the 2015-2016 reference year on salt and condiments. Condiments and seasoning include some basic vegetables (such as onions or tomatoes) that are cut finely and cooked with food to add seasoning. The addition of vegetables as seasoning explains why this item was so much more than the estimated cost for iodised salt in the sector basket.
- 2) **Expenditure Gaps** – With the single exception of salt and condiments, all of the other sector basket costs were not met by poor households. Poor households spent small amounts on lighting (torch and batteries); sleeping (mats and blanket); home repair; and a few kitchen items. However, there were gaps in the diversity of items purchased as well as the number and quality of items required to meet sector standards.

Clothing Sector Basket

Clothing Items Sector Basket	
Initial Assumptions	The clothing basket includes the cost of one new set of clothes for each family member, including a sweater or coat for cooler weather, and one pair of new shoes per year.
	The prices are based on the cost of new clothes rather than second-hand clothes.
Rationale	As the clothing sector basket only includes a single new set of clothes, these clothes will wear out by the year's end, requiring new ones the following year. Moreover, children out-grow their clothes every year.

Figure 3 – Clothing Sector Basket Costs & Poor HH Expenditures (FCFA/HH 8/year) – NE04 LZ Niger



Findings:

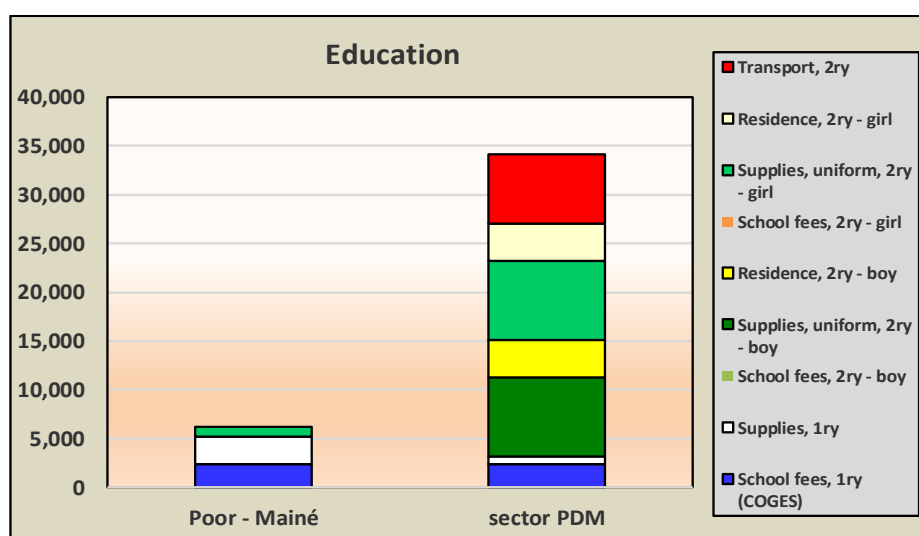
- 1) **Priority Expenditures** - Poor households in the 2015-2016 reference year spent money on clothes for all members of the household (from children to adults). Poor households also included shoes or sandals in their annual budget. This spending pattern reflects the importance of buying clothes for the family during key religious festivals.
- 2) **Expenditure Gaps** - The gap in poor household expenditures in 2015-2016 compared to the adjusted 2015-2016 cost of

meeting clothing sector standards was FCFA 7,910. This is not a major gap. The difference is attributed to the amount and quality of clothes allocated to the sector basket compared to actual household spending.

Education Sector Basket

The table below illustrates clearly the difference in actual spending by poor households on education in 2015-2016, and what it costs for a household of 8 to send 2 children to primary school and 2 children (1 girl; 1 boy) to secondary school.

Figure 4 – Adjusted Education Sector Costs and Poor HH Expenditures (FCFA/HH 8/year) – NEO4 LZ Niger



Education Sector Basket	
Initial Assumptions	The education basket for a household of 8 includes the cost of sending 4 children to school (2 to primary and 2 to secondary school). Secondary school is assumed to be a boarding school with associated residence and travel costs. Registration is free for children aged 4-18 in Niger but there are other associated costs for school (COGES, school supplies and so on).
Rationale	Secondary schools are primarily based in towns, requiring rural Nigerien students to board during term time.

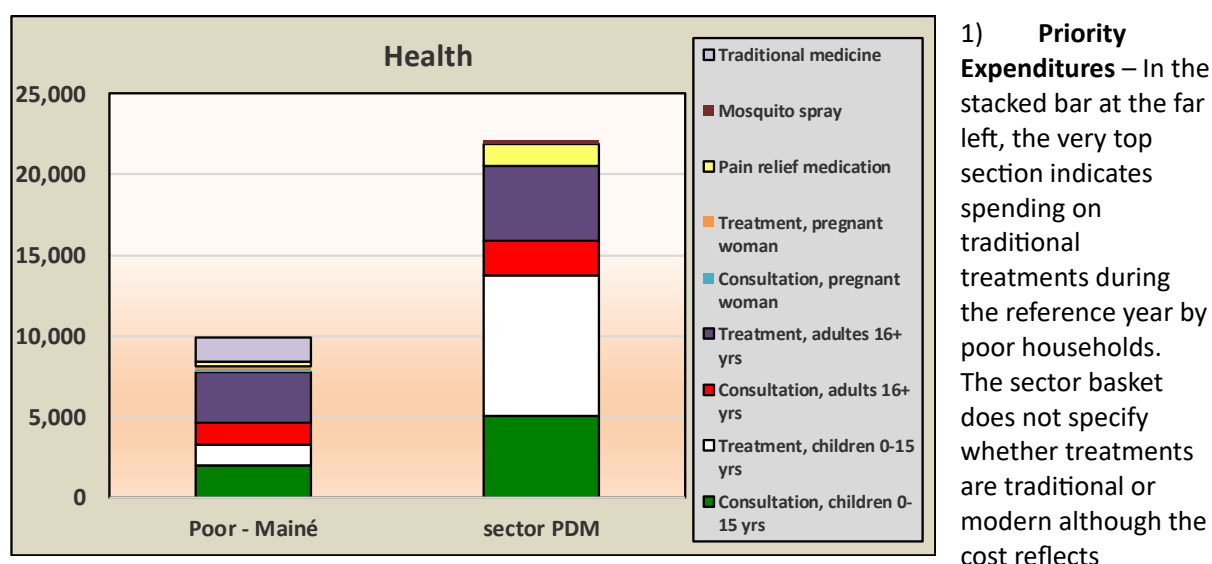
- 1) **Priority Expenditures** – Primary education is a priority for the poor and this is reflected in their budget allocations. The amount that the poor households typically spent on primary school supplies may reflect that some of their older children who are of secondary school age are in fact attending primary (not secondary) school.
- 2) **Expenditure Gaps** – On average, the poor spent only FCFA 1,000/yr on school supplies for their children in secondary education. This is very little money compared to the almost FCFA 31,000 that is in the sector basket for secondary school supplies, residence and transport for 2 students. In this zone, secondary school expenses for the middle and better-off households were also very low and certainly less than expenditures on primary school. This suggests that children in the rural NEO4 livelihood zone typically attend only primary school. It is not clear whether the results reflect the low availability of

secondary schools for rural students, or whether the cost to attend secondary school is too high; or whether secondary school is not a priority expense for rural households.

Health Sector Basket

Health Sector Basket	
Initial Assumptions	The Health sector basket includes the cost of one consultation and one treatment at a health facility per person per year. The sector basket also includes the cost of some items in a basic health care kit such as pain medication and mosquito spray.
Rationale	Not all family members get sick during the year but by putting in the sector basket 1 consultation and treatment per person per year, it supports the notion that households should be able to afford a minimal level of health treatment every year when needed.

Figure 5 – Adjusted Health Sector Costs and Poor HH Expenditures (FCFA/HH 8/year) – NE04 LZ Niger

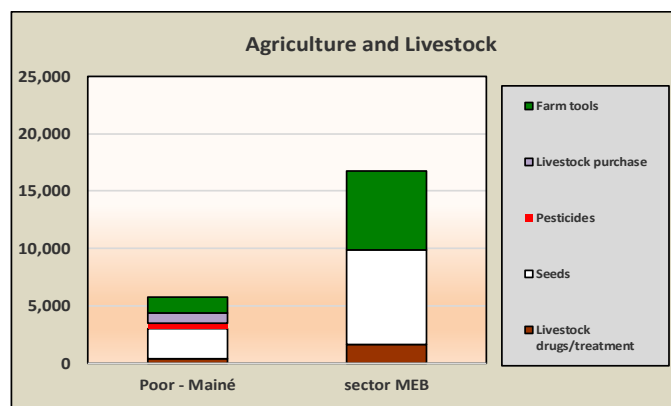


treatments at a clinic. Overall in 2015-2016, poor households spent the most on health treatments for adults. Actual spending on adults' health care by the poor was fairly similar to the sector basket cost and the difference was only FCFA 1,470/year.

- 2) **Expenditure Gaps** – There is an estimated gap of FCFA 12,184 between meeting basic health care costs of a household of 8 and the actual spending on health care by poor households in 2015-2016. The gap was primarily due to lower spending on children's health care. Notably, spending by the poor on their children's health care was only FCFA 3,230/year. This is FCFA 10,537/year less than what was estimated as the sector standard cost for health care at a clinic for 6 children. Perhaps some of children's treatments were traditional rather than at the clinic. Perhaps, children from poor households in this rural livelihood zone enjoyed good health in the reference year. However, the relatively high rate of malnutrition in Niger suggests that the poor likely lacked the money to pay for health care when their children are moderately ill (i.e., they followed a wait-and-see approach). To fully cover the sector basket costs, the poor would have to more than double their reference year spending.

Agriculture and Livestock Sector Basket

Figure 6 – Adjusted Agriculture and Livestock Sector Costs and Poor HH Expenditures (FCFA/HH 8/year) – Niger



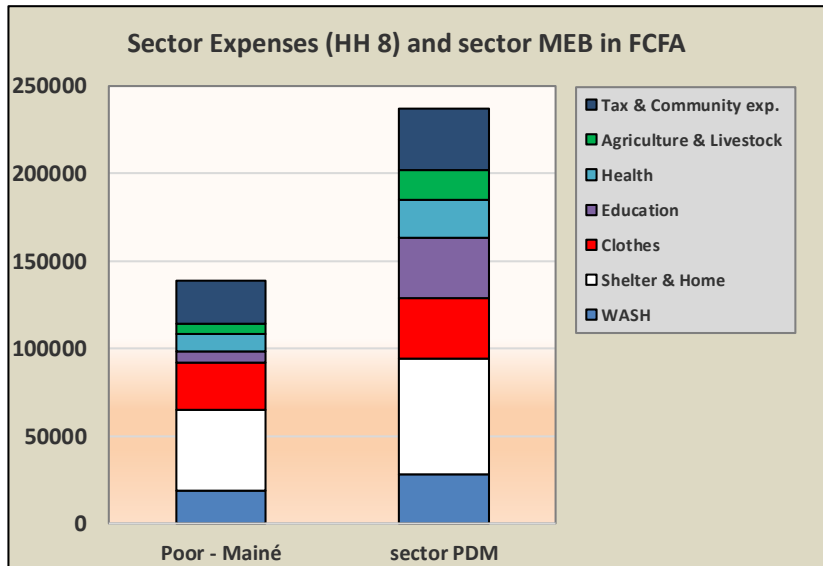
This sector basket includes very basic inputs such as seeds, tools and veterinary care. As international and national standards were not specific in terms of livelihoods, the sector basket remains very basic. However, a consideration of local standards and/or the actual expenses of the poor could lead to a review of what items are in the basket and whether additional items, such as livestock purchase, should be added.

Agriculture and Livestock Sector Basket	
Initial Assumptions	In the initial sector basket, the cost for 3 new tools (hoe, rake and <i>daba</i>) every year was included. In terms of calculating the quantity of seeds and veterinary care, the estimate was based on the typical land size and herd size of poor households. Chemical fertilizer and pesticides are not included.
Rationale	Chemical pesticides and fertilizer are associated with undesirable effects (i.e., for human health, water quality and so on). Therefore, they were not included in the sector basket. The purchase of new livestock is a desirable expenditure and could be reconsidered for the sector basket to reflect that poor households spent money on this item.
Adjusted Result	The adjusted sector basket includes the cost of replacing old tools with new tools every 2 years. Although used intensively during the year, arguably such tools will last for 2 years before needing to be replaced.

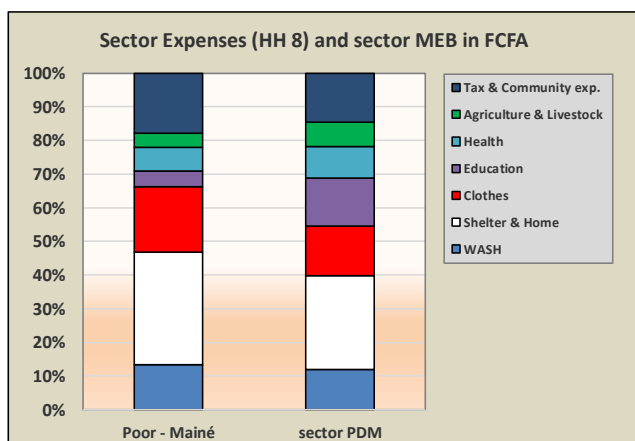
- 1) **Priority Expenditures** – The poor bought seeds and tools to support agricultural production. Seeds were their highest expenditures in the 2015-2016 reference year. On average, they spent a small amount on livestock purchase (FCFA 900) and veterinary care (FCFA 400).
- 2) **Expenditure Gaps** – The overall cost of this sector basket is low but spending by the poor was even lower. Thus, measured against all of the sector baskets, the **poor spent the least on the livelihood sector**, reflecting their few livelihood assets. Specifically, the expenditure gap for seeds and for tools was roughly FCFA 5,500 each. Whereas small amounts of seeds and tools were common purchases for most of the poor, by contrast middle and better-off households saved seeds from their harvest and generally did not purchase seeds in the reference year.

Non-Food Basket Summary

Figure 7 & 8– Adjusted Non-food Items Sector Costs and Poor HH Annual Sector Expenses (FCFA/HH 8/year) - Niger



As a first step, we reviewed each sector separately, comparing the sector basket cost to poor households' expenditures. The next step is to review the total cost for the **non-food items basket** and compare this cost to spending patterns in the 2015-2016 reference year. This combined picture is illustrated in figure 7. The stacked bar chart on the left illustrates actual spending by the poor. The stacked bar chart on the right is the cost of the non-food items basket.



Findings:

- 1) **Priority Expenditures, Poor Households** - Poor households' priority sector expenditures included WASH items, household goods, clothes and community contributions (including local tax, zakat, and festival costs). Proportional spending on **shelter and home** was **relatively high** (see graph, white bar, above). Nonetheless, the actual amount spent was less than the amount needed to meet sector standards (see figure 8).
- 2) **Priority Expenditures, Middle and Better-off Households** –

- (i) Middle and better-off households' **health** expenditures per capita (FCFA 2,392) almost matched the per capita sector basket cost in 2015-2016 (FCFA 2,762 per capita).
- (ii) **WASH** expenditures (FCFA 3,430/person/year and FCFA 3,191/person/year for middle and better-off households respectively) were only slightly below the sector basket cost (roughly FCFA 3,633/person/year) All but the very poor typically paid for some water during the year but per capita spending (i.e, FCFA 600-700/year for middle and better-off households) is lower than the per capita cost set in the sector basket (FCFA 1,125/year).
- (iii) Spending on **household items** for middle and better-off households (FCFA 9,150/person/year and FCFA 10,194/person/year respectively) was slightly higher than the shelter & home sector basket cost (FCFA 8,173/person/year). The sector basket does not include firewood costs or the cost to have whole grains milled although better-off households bought firewood and both middle and better-off households paid grinding fees during the reference year.

- (iv) Notably, **livelihood input** spending (FCFA 7,910 per capita) by better-off households was much higher than the sector basket cost (FCFA 2,094 per capita). This is because the sector basket reflects poor household's land and herd sizes, and thus the quantity and range of items in the basket is very narrow.
- 3) **Expenditure Gaps** - The poor spent very little on education, health and livelihoods (coloured purple, blue and green respectively in the bar chart; see figures 7 & 8). In particular, **education** spending (the purple colour bar) **was very low** compared to the sector basket. This was due to very limited spending on secondary school. Notably, **education spending was very low for all wealth groups** in the NE04 Mainé Sorora Diffa livelihood zone. In light of this outcome, **a review of the education sector basket may be necessary**. In particular, the reasons why households spent so little on secondary school should be investigated as this will help to determine if the sector basket cost is over-estimated.

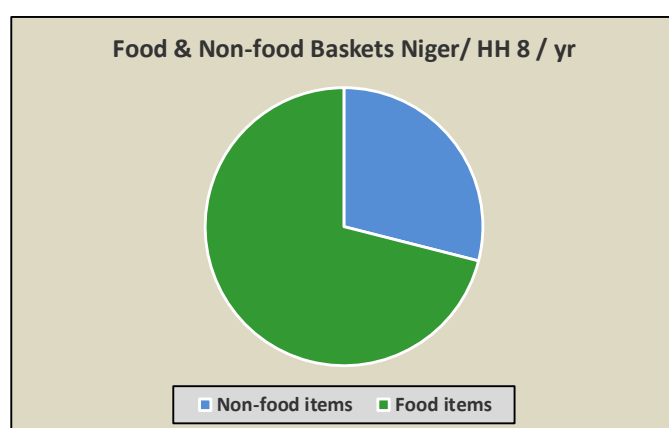
The Food Basket

The total sector MEB includes the cost of a food basket. This basket comprises healthy diet standards that reflect a reasonable diversity of cereals and tubers, protein foods (animal products, fish, legumes and nuts/seeds), vegetables or fruit, and fat. The proportion of each food group in the healthy diet calculation is outlined in the table at right.

2100 kcal pppd pppd = per person per day	MEB Food Basket	kcal pppd
Cereals/Roots/Tubers	55%	1,155
Legumes, Nuts, Animal Products	20%	420
Oil/Fat	24%	504
Fruits and Vegetables	1%	21
	100%	2,100

The cost of the food basket in the MEB calculation is FCFA 576,669/HH 8/year. This is significantly higher than the cost of the non-food items in the sector MEB. The pie chart below illustrates the proportional importance of the food basket compared to the non-food items basket.

Figure 9 – Proportion of the Food Basket to the Non-Food Item Basket (HH 8/year) – NE04 LZ Niger



As illustrated at left, the food basket comprises roughly 70% of the total sector MEB cost. This proportion is similar to the finding by FSNAU (Food Security and Nutrition Analysis Unit, Somalia) that food costs typically comprise 70-80% of the total MEB in Somalia. This also reflects the proportional cost of food in the actual spending of poor households. For instance, in the NE04 agropastoral livelihood zone in Niger, food purchases comprised an estimated 64% of poor households' annual expenditures during the reference year.

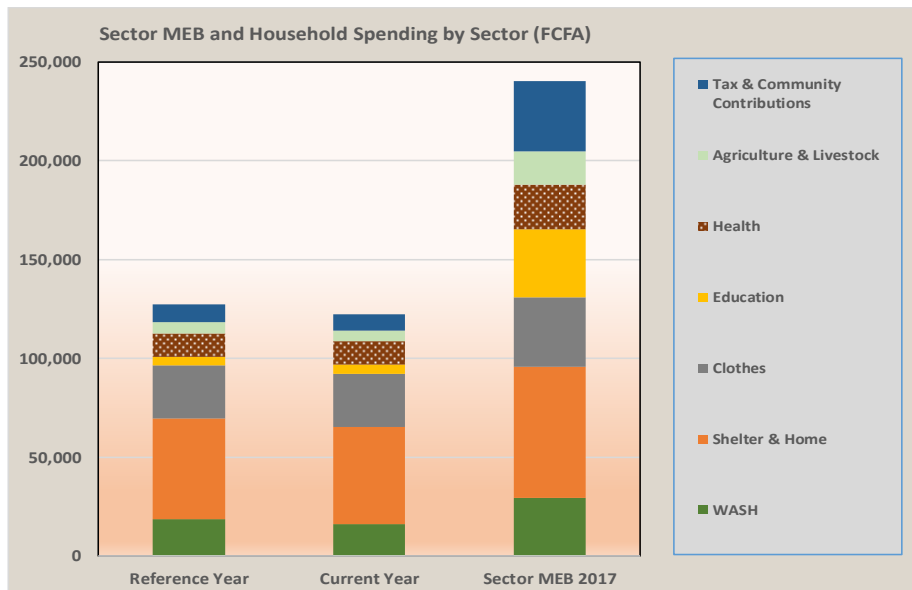
Note that poor farmers in this zone produced enough crops for consumption in the reference year to last about 5 months, and therefore their purchases did not represent 100% of their households' food

needs. In the sector MEB, the food basket represents the cost of 100% of a households' annual food energy needs and this is why it is a higher proportion of the total MEB cost.

Reference and Current Year Changes - Diffa Agropastoral (Niger)

Household spending on sector items changes from year to year as does household total income which is affected by production conditions and price changes in any given year. Sector MEB analysis can take account of these changes in two ways. First, HEA outcome analysis addresses how production and price changes in the reference year and the current year will affect **household total income**. Current year household total income can in turn be compared to the **current year cost of the sector MEB**. Second, household spending on various items in the sector baskets can be collected every year. Changes in household spending patterns can then be compared to changes in the cost of the sector MEB. Key questions to ask are: (i) have price changes led to significantly more spending on some sector items and significantly less spending on other sectors? (ii) If sector basket costs have increased, has household income and spending been able to keep pace with rising prices? If not, what sectors have been most affected?

Figure 10 – Changes in Poor HH Sector Spending and the 2017 Sector Basket costs (HH 8/year) – NE04 LZ Niger



The example at left from the agropastoral zone of Diffa, Niger compares poor household spending on the different sectors between 2015-2016 (reference year) and 2017 (current year). The result shows that WASH sector spending was a little lower in 2017 but overall there was not a great difference between these years. This indicates that there

were no major price changes and/or production shocks. When compared to the 2017 sector MEB cost (see the bar chart on the far right), the poor spent roughly 50% of what it costs to meet sector standards. The income of poor households was lower than the sector MEB threshold but spending patterns also reflect that the poor chose to buy some items not included in these particular sectors. To understand to what extent the poor can afford the sector basket, we need to look at their total income and how their income measures up against the sector MEB cost. This is addressed in the next section.

The sector MEB Threshold & HEA Resilience Analysis

2 Case Studies – Senegal & Niger

The sector MEB Threshold

The combined cost of the food basket and non-food item baskets is the total cost of the sector MEB. This cost represents the minimum income required to meet sector standards of well-being. In rural agropastoral areas of Niger, the sector MEB threshold was an estimated FCFA 101,733/person/year and in rural agropastoral areas of Senegal, the threshold was calculated at FCFA 104,726/person/year (adjusted for 2015-2016 prices).

The sector baskets in Niger and Senegal were calculated for two rural agropastoral zones. In many ways, these rural sector baskets were very similar. For instance, they did not include the cost of items that can generally be obtained free of charge in rural areas, such as firewood or shelter/home rental as well as free water for six months (the baskets included water payment for the other 6 months). By contrast, an urban basket may likely include a full year of water costs as well as higher costs for house rental or maintenance, and electricity.

Nonetheless, the two countries' rural baskets differed in some ways too. In particular, the health and education sector baskets varied depending on what services are provided free and what services have an associated service charge. In Niger, for example, students up to 18 years old do not pay a school fee whereas in Senegal there is a registration charge both at the primary and secondary school level. Moreover, in Niger, children 0-5 years receive many treatments free of charge whereas in Senegal there are more associated health care fees for children. The food basket also differed because the staple food items are not the same in each of these zones. Thus, the components of the health, education and food sector baskets were different in Niger and Senegal, and together with country-specific prices, this led to a slightly different total sector MEB threshold in each country.

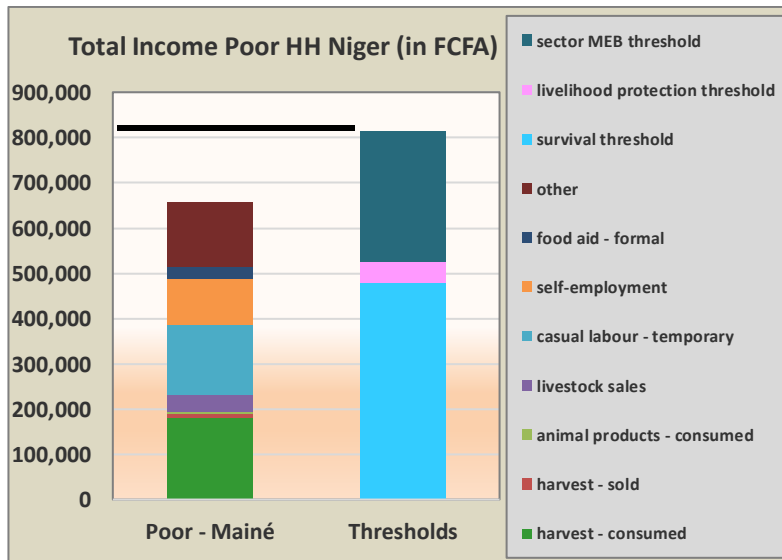
Nonetheless, in each country, the value of the sector MEB threshold is that it allows the user to evaluate which households fall above or below this particular measure of wellbeing. In HEA analysis, there are already two other thresholds used to measure the economic welfare of households: the survival threshold and the livelihood protection threshold. The survival threshold is the cost of the food energy required for physical survival as well as the associated cost to prepare the food.⁷ The livelihood protection threshold represents the minimum cost required to maintain a livelihood (including seeds and fertilizer for farming, hired agricultural labour, veterinary care, fodder, water and salt for livestock production; health and education, and taxes). If household resources fall below these two basic thresholds, a humanitarian response should be triggered. By contrast, households who fall below the sector MEB threshold require longer-term income support to help lift them out of poverty.⁸

⁷ Non-food survival items include salt, soap, cooking fuel and water.

⁸⁸ Note that the livelihood protection threshold varies in value by wealth group as it is meant to protect the existing livelihood level of the poor, middle and better-off groups. By contrast, the sector MEB threshold is a single value, applied in the same way to all wealth groups, and calculated per capita or by a standard household size. In terms of the MEB threshold, the key question for all wealth groups is whether their income can pay the minimum cost of a basic standard of living.

We can now view how to apply these three thresholds by first using the example from poor households in the Mainé Sorora Diffa agropastoral livelihood zone in Niger. The stacked bar chart on the right side of the graph below shows the different threshold levels. The stacked bar on the left side of the graph shows the total food + cash income (*total income*) of poor households in the 2015-2016 reference year. Note that the *total income* calculation includes the value of food produced and/or gathered, and the cash earned per household during the reference year.

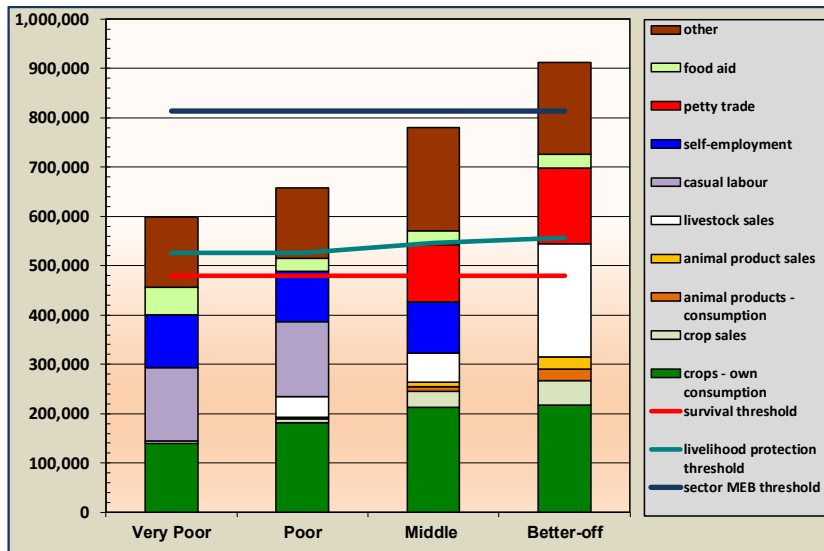
Figure 11 – Poor Household Total Income (HH 8/year) and the 3 HEA Thresholds – NE04 LZ, Niger



The reference year was not a crisis year and the poor, hence, earned and produced more than was required to meet their emergency survival and livelihood protection needs. However, their total income fell below the sector MEB threshold. In short, the poor did not earn not enough to meet minimum standards of well-being. The gap was FCFA 156,079/HH 8/year (adjusted for 2015-2016 prices). This represents about 24% of their total income. In other words, the poor would have to earn and/or produce roughly 124% of their

reference year income to meet the sector standards of well-being.

Figure 12 – Total Income (HH 8/year) by Wealth Group and the 3 HEA Thresholds – NE04 LZ, Niger

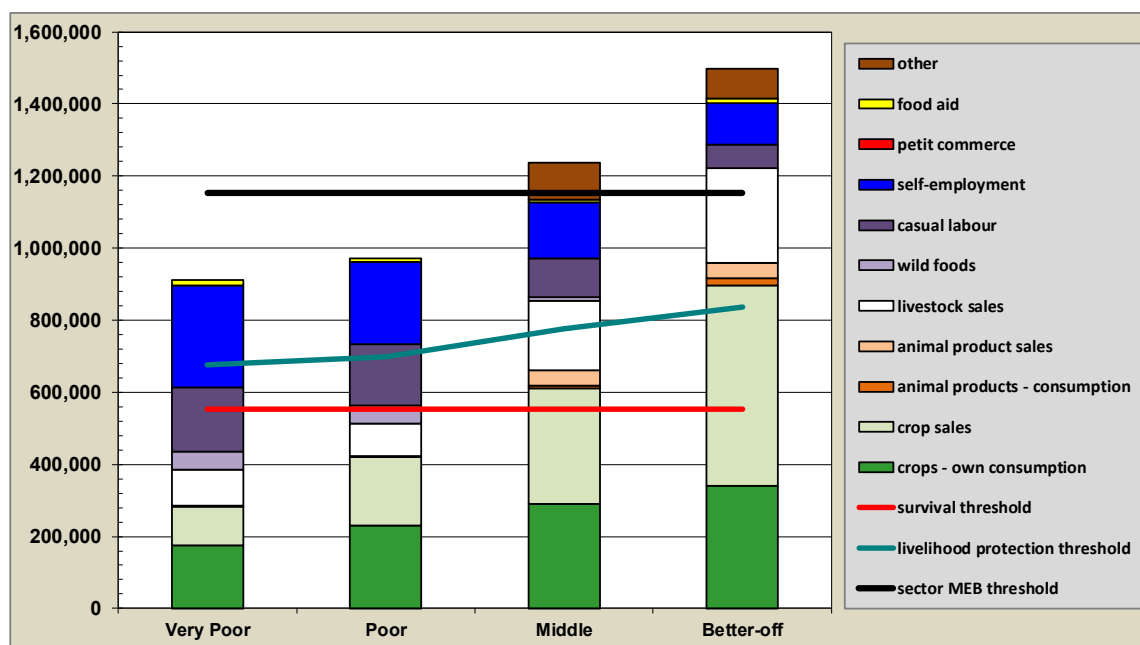


To broaden the analysis, we can look at where 4 different wealth groups fall in relation to the three thresholds. The better-off are above the survival, livelihood protection and sector MEB thresholds but three wealth groups – the very poor, poor and middle households – are below the MEB threshold. Thus, only better-off households in the reference year earned and produced sufficient food and income to meet the cost of a minimum standard of living.

We can now look at the example from Senegal (SN13 livelihood zone). In the example (figure 12), *total income* for each wealth group is illustrated in the 4 bar charts. In the reference year, which was a

reasonably good production year, all wealth groups fell over the survival and livelihood protection thresholds (and thus a humanitarian response was not required). However, in this case, only middle and better-off households fell above the sector MEB threshold.

Figure 13 – Total Income (HH 11/year) by Wealth Group and the 3 HEA Thresholds – SN13 LZ, Senegal



SN13 represents the Tambacounda Goudiry Kolda agropastoral livelihood zone in south-western Senegal. In this zone, the sector MEB threshold is an estimated FCFA 1,151,982/HH 11/year (adjusted for 2015-2016 reference year prices). Total income for each wealth group has also been adjusted for a household size of 11 (i.e., the average size of poor households in the SN13 livelihood zone). As illustrated in the graph (figure 12), the very poor and poor face expenditure gaps of 27% and 19% of *total income* respectively. In other words, poor households would have to increase their *total income* to 119% of the reference year level in order to meet the full cost of the sector baskets.

The MEB Resilience Score

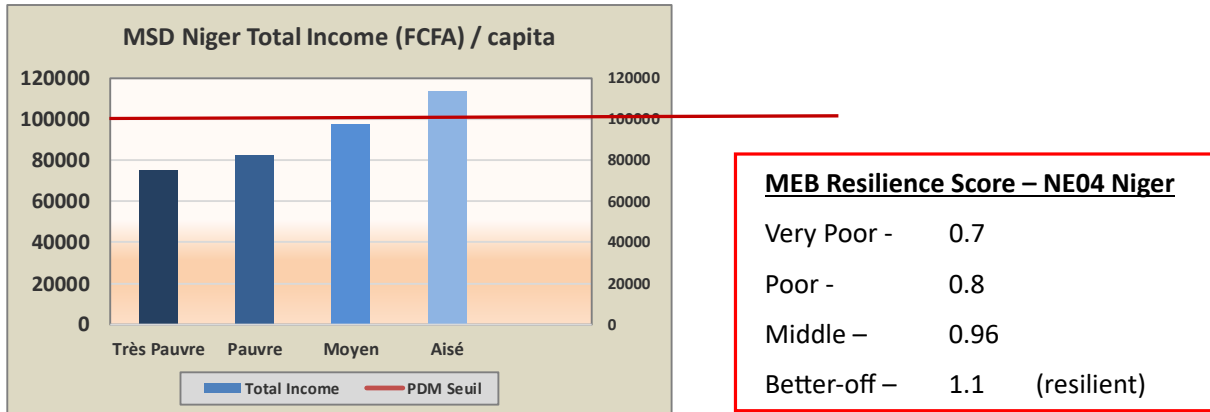
From an analysis of the sector MEB threshold, we can then calculate a MEB resilience score for each wealth group. This can be done on a household basis (using the average household size of the poor), or on a per capita basis. For illustrative purposes, we will use the per capita calculation.

To calculate the per capita MEB cost, a simple way is to divide the total MEB cost by the household size. The rural MEB was based on a household size of 8 in Niger and a household size of 11 in Senegal. The per capita result is thus an estimated FCFA 101,466 in Niger and FCFA 104,521 in Senegal (adjusted for 2015-2016 prices).

The next step is to compare the per capita MEB cost to the per capita *total income* by wealth group from which we can calculate a MEB resilience score. The results for Niger and Senegal are shown in figure 13 and figure 14 respectively. In both cases, the very poor and poor wealth groups fall markedly below the MEB threshold. Middle households fall just below or just above the threshold, and only the better-off are well over the line. In practical terms, about 60% of households in the two Niger and Senegal agropastoral livelihood zones are estimated to be markedly below the minimum standard of

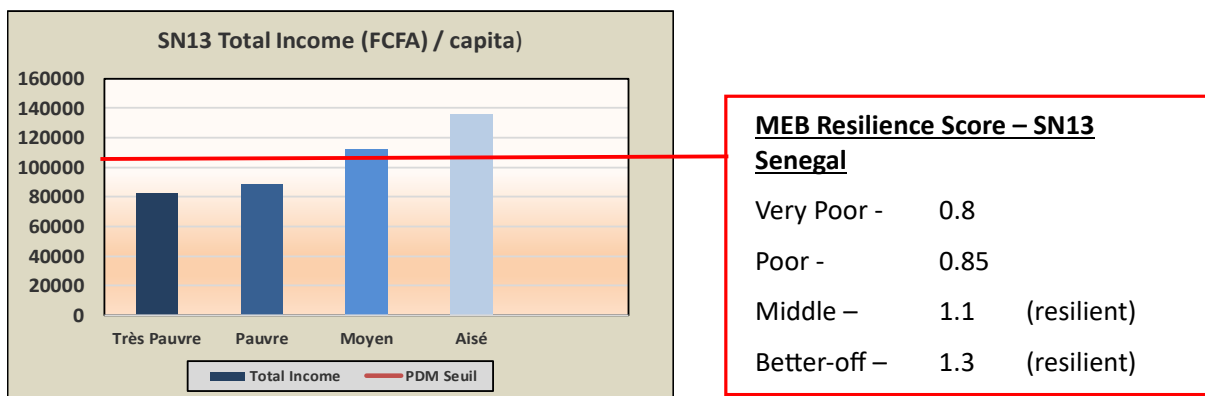
well-being; about 27-29% of households earn about enough income to meet sector standards; and just 11-13% of households comfortably meet more than the minimum standard.

Figure 14 –Per capita Total Income/year by Wealth Group and the MEB Resilience Threshold – NE04 LZ Niger



These findings can thus be summarized in terms of a **MEB Resilience Score**. The score is calculated by dividing total income by the sector MEB cost. A score that is higher than 1 means that household income is high enough to cover the cost of sector standards in that zone. Those households, therefore, are relatively **robust**. A score that is lower than 1 means that household income falls below the cost of meeting minimum standards of well-being.⁹ In the two Niger and Senegal agropastoral livelihood zones in 2015-2016, only the better-off and middle wealth groups had a score higher than or near to 1.

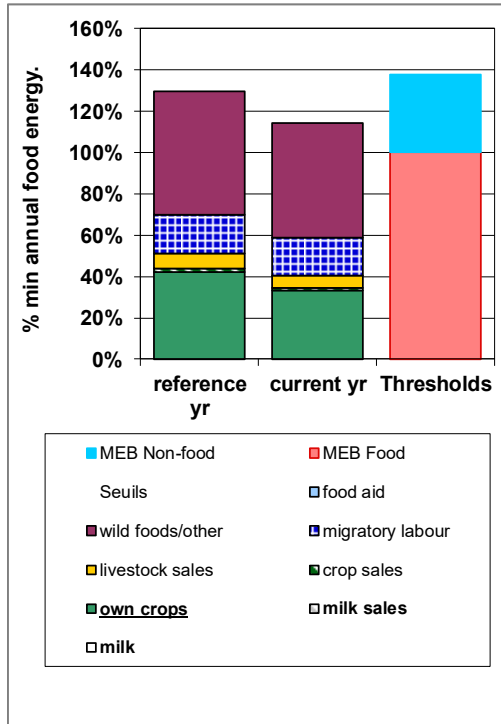
Figure 15 –Per capita Total Income/year by Wealth Group and the MEB Resilience Threshold – SN13 LZ Senegal



⁹ The MEB Resilience Score borrows the calculation method from the HEA Livelihood Resilience Score but the two differ in one fundamental way. The Livelihood Resilience Score addresses the degree to which households are resilient to common shocks. To calculate the score, a typical hazard scenario is modeled using HEA baseline data. Wealth groups who fall above their livelihood protection threshold (i.e, a resilience score higher than 1) are considered resilient to the hazard. By contrast, **the MEB Resilience Score is a measure of well-being in a relatively normal year** and compares reference year and/or current year household income to the cost of achieving minimum acceptable living standards.

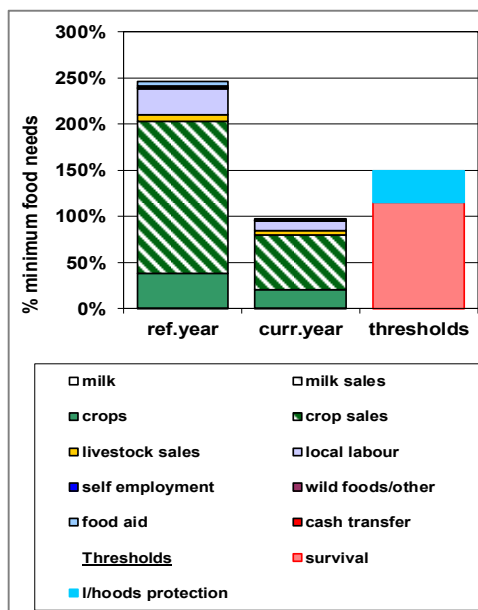
HEA Outcome Analysis and the sector MEB

Figure 16 –Poor HH Ref and Current Year Total HH Income + the Current Year sector MEB Threshold--MSD Niger



The previous section addressed how the **sector MEB threshold** can be compared to **household total income** in order to generate a **sector MEB Resilience score**. We also discussed how changes in the **cost of the sector MEB** can be compared to changes in **household spending** on sector items. We can also assess how **changes in the cost of the sector MEB** compare to **changes in household total income**. In HEA, the calculation of the impact of current year price and production shocks on household total income is called **outcome analysis**. Outcome analysis can be applied to a sector MEB inquiry by using a specialized excel spreadsheet called the **MEB LIAS** (Livelihood Impact Assessment Spreadsheet). The MEB LIAS is designed to look and operate like the standard HEA LIAS. The key difference is that in the standard HEA LIAS, sheet M is used to record changes in the price of items in the survival and livelihood protection baskets. This has been replaced in the MEB LIAS (sheet M) by items in the sector MEB food basket and by the non-food sector baskets. Up to 10 food items in the food basket are included in the MEB LIAS. For the non-food baskets, only the total cost of each sector basket is entered.

Figure 17 –Poor HH Ref and Current Year Total HH Income + Current Year HEA Thresholds--MSD Niger



The final outcome is an analysis of how reference year and current year household total income compares to the current year cost of the sector MEB. In the graph above at left, the bar on the far right shows the current year MEB threshold. This threshold replaces the survival and livelihood protection threshold as is seen in the standard HEA outcome analysis (i.e., see graph at left). In both cases, the bar has been divided into two sections. In the standard HEA, the pink section represents the survival threshold. The blue section represents the livelihood protection threshold. In the sector MEB analysis, the pink section represents the cost of the food sector basket. The blue section represents the cost of the non-food sector baskets.

The sector MEB threshold is higher (i.e. costs more) for good reason. For example, the HEA survival basket includes the local staple food item plus salt, soap and cooking fuel, and sometimes grinding fees. By contrast, the MEB food sector basket contains only food. However, this

basket comprises a diversity of food items (i.e., up to 10 items) covering the major food groups for a healthy diet.

The blue section of the MEB threshold bar is the cost of the non-food sector baskets. It represents the cost of all the items in the WASH, shelter & home; clothing; education; health; agriculture and livestock; tax and community contributions; and (where needed) protection and security sector baskets. By comparison, the livelihood protection basket contains many of the same items as the non-food MEB but the range of items is smaller and the amounts are less because they are based on actual spending by the poor rather than on desired spending to meet sector standards.

In order to compare household total income in the current year with the HEA survival and livelihood protection thresholds, and with the MEB threshold, separate analyses and separate graphs will be generated using the two separate LIASs. Only one set of baseline data is required which is used to set up both the standard LIAS and the sector MEB LIAS.

HEA outcome analysis is carried out for separate wealth groups as well as for separate livelihood zones. In the sector MEB outcome analysis, household total income changes by wealth group but the same sector MEB threshold is applied for all wealth groups. The analysis is more complex for the different livelihood zones. Ultimately, it rests on the user's decision whether to apply a single MEB threshold across all rural zones or, alternatively, to collect data in each zone and to calculate a separate MEB threshold for each livelihood zone.

There are different implications for each decision.

- 1) Single sector MEB threshold for all rural zones – (i) The non-food sector basket costs will be applied in the same way to all of the rural zones. However, the final cost of each sector basket will need to be adjusted for the reference year of each zone. (ii) The food sector basket cost will be updated based on actual reference year data for the food items in each different livelihood zone. Therefore, the prices will be livelihood zone specific. If there is not an actual price for a specific food item in the baseline data, the price in the original sector MEB will be used. Note that using different food prices for each different livelihood zone will mean that the MEB cost will have a different value (both in food and cash terms) in each livelihood zone. Only if the same prices are applied to all rural livelihood zones will the sector MEB threshold be the same across all rural zones. An adaptation to this approach is to calculate a single MEB threshold for each main category of livelihood zone (agropastoral, pastoral, agricultural and irrigated zones).
- 2) Livelihood zone specific sector MEB thresholds – (i) The non-food sector basket costs will be based on prices specific to each livelihood zone for the particular reference year; and (ii) The food sector basket costs will be based on prices specific to each livelihood zone for the 10 staple food items common in the zone and using the zone-specific reference year data.

Currently, the sector MEB analysis uses a MEB LIAS based on pilot data from the MSD (NE04) livelihood zone in Niger. This LIAS and the corresponding LIAS setup file could be adapted for all of the agropastoral livelihood zones in Niger by adjusting the non-food sector basket costs for each livelihood zone's specific reference years and by updating the food sector basket based on actual food costs in each livelihood zone (i.e., option 1). To pursue option 2 above (that is, a sector MEB threshold specific for each livelihood zone) a different and separate LIAS setup file will need to be generated.

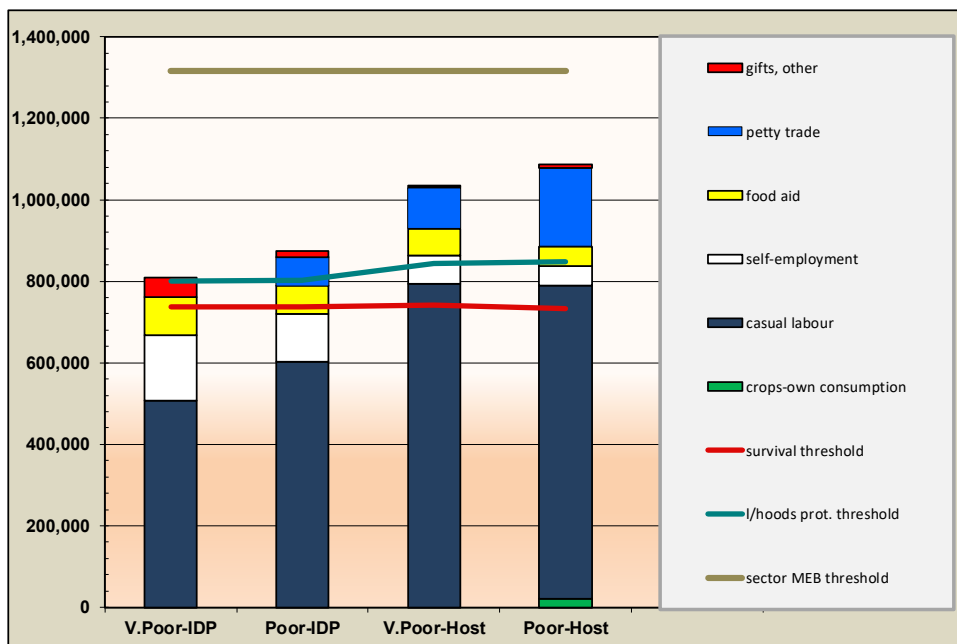
Child-focused Sector Spending

Diffa Town (Niger) Case Study

A recent HEA baseline in Diffa town covered very poor and poor households from two population groups (the internally displaced population or IDPs and the host community). The reference year for the study was December 2016 – November 2017. A separate HEA livelihood profile summarizes the results of the baseline assessment. The following discussion, therefore, focuses on how the baseline results compare to urban sector MEB costs, noting in particular how to incorporate an analysis of child-focused sector expenditures.

Before looking in detail at two examples of child-focused expenditure analysis, we will look at the urban sector MEB threshold and then review overall sector spending compared to sector basket costs. The first graph (figure 16 below) compares the *total income* of each wealth group to the urban MEB threshold which has been calculated for a household of 8. The urban basket contains higher water and firewood costs, a slightly more diverse food basket, and fewer livelihood inputs than the rural basket. Moreover, in the urban case study, *total food + cash income* is a mix of cash income earned during the year plus some food aid and gifts. Only the poor from the host community accessed some food from their own peri-urban crop production.

Figure 18 – Total Income by Wealth Group and the sector MEB Threshold (FCFA/HH 8/year) – Diffa town, Niger



The four stacked bar charts represent the *total food + cash income* per household of 8 for the 2016-2017 reference year. The results for the **IDP** population (very poor and poor) are shown in the two bar charts at far left. The resources of these groups hover at, or just above, the livelihood protection threshold.

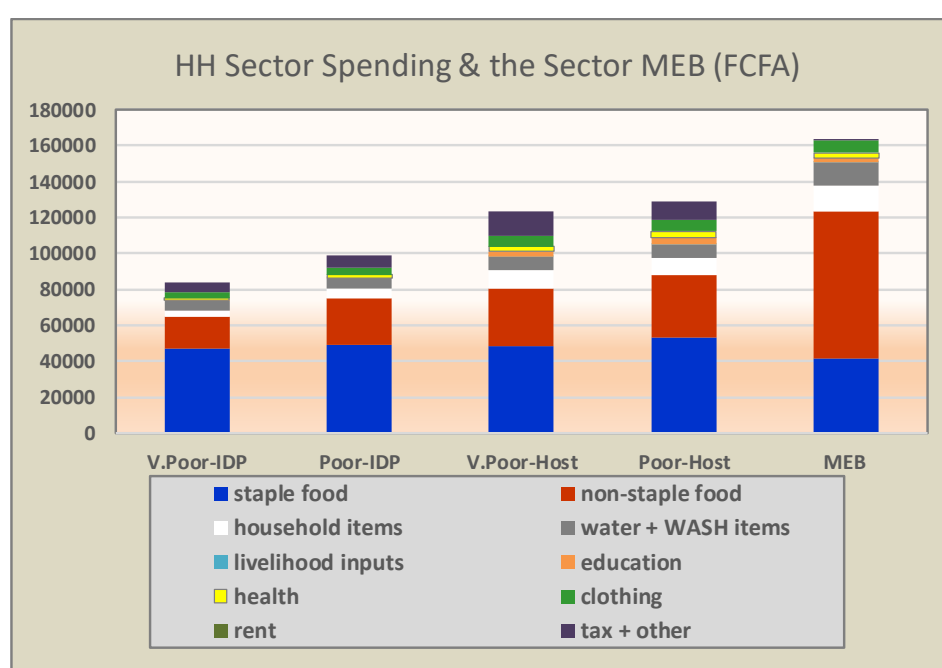
threshold. For these households, life is lived on the very edge of survival. The MEB resilience score for the urban Diffa IDP population is 0.64 for the very poor and 0.7 for the poor. The two stacked bar charts on the right side of the graph above illustrate the *total income* of the **host** population (very poor and poor households). By comparison, their resources fall above the livelihood protection threshold. Nonetheless, their income does not meet the minimum expenditure standard of well-being. Their MEB resilience scores are 0.8 for the very poor hosts and 0.84 for the poor host households. The total value of the urban Diffa sector MEB threshold is an estimated FCFA 164,509 per capita/year. This is FCFA

27,025 per capita/year higher than the *total income* of the poor host households (who had the highest total income of the 4 wealth groups). Poor host households need to increase their income to roughly 120% of their reference year income to meet the urban Diffa sector standards.¹⁰

Child-focused Spending and the Sector Baskets

Calculating detailed sector basket costs facilitates a closer look at how much households spend on children and whether it is sufficient to meet health, hygiene and education standards. As a first step, we will look at an overview of household spending by sector as compared to the sector baskets in the urban Diffa case study.

Figure 19–Sector Expenditures by Wealth Group and the Sector Baskets (FCFA/pers/year) –Diffa Town, Niger



Findings:

1) **Priority Expenditures** – Food is the priority expenditure and comprises 65-77% of the expenditures of the very poor and poor in the IDP and host communities. This proportion is similar to the food basket in the urban Diffa sector MEB which accounts for 76% of the total MEB cost. Firewood, water and clothes were

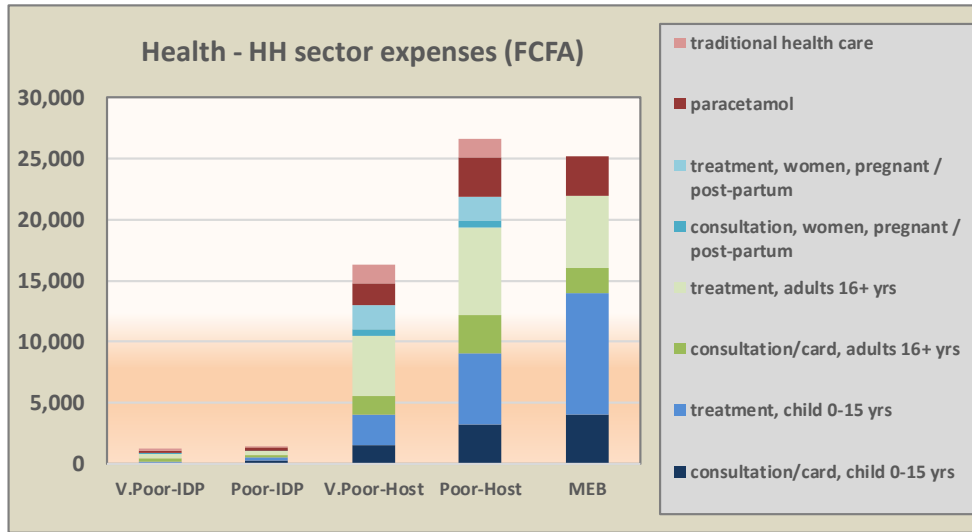
other common priority expenditures.

- 2) **Expenditure Gaps** - In absolute terms, household spending on non-staple food items was a lot lower than the urban sector standard. The urban food basket contains more diverse items to meet healthy diet standards than the actual diet of the poor and very poor, and this accounts for the expenditure gap. The other main gap was WASH sector spending. The very poor and poor households paid for water and soap but on average they did not buy the other hygiene and sanitation items that are included in the urban sector basket.

Health and education sector baskets are less costly than the WASH basket but they are essential to children's well-being. The urban Diffa baseline contained detailed expenditure information and this information can lead to insights on child-focused spending.

¹⁰ Recall that poor households in rural Diffa (NE04 Livelihood Zone) likewise need to increase their total income to an estimated 123% of reference year levels to meet sector standards.

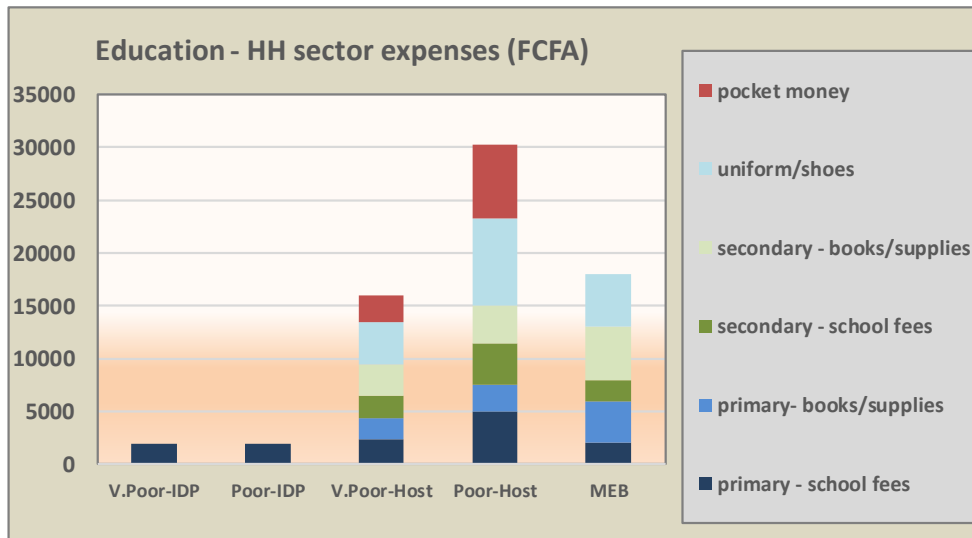
Figure 20 – Per Capita Health Sector Expenditures by Wealth Group and the Health Sector Basket (FCFA/year)



Poor households in the host community spent money on health care for both children and adults in the family. However, the very poor in the host community as well as the two wealth groups in the IDP community spent very little

on children’s health care. Health care for children in these population groups may have been provided free of charge but most likely children’s health suffered due to lack of income.

Figure 21 – Per Capita Education Sector Expenditures by Wealth Group and Education Sector Basket (FCFA/year)



The detailed education expenditure breakdown shows that in urban areas, the very poor and the poor in the host community spent money on education both for primary and secondary school students.

Indeed, their expenditures were higher than the estimated urban education sector basket which should prompt a review of the basket costs. The school expenditures of the host community contrast starkly with the IDP population who could afford to pay for primary school only. These households may have accessed school sponsorship programs or perhaps they had access to free education but the results suggest that the average poor and very poor IDP household cannot afford secondary school costs for their children.

The results from Diffa town are interesting when compared to the results from rural Diffa (Mainé Sorora Diffa Livelihood Zone). **Education spending in the rural zone was very low compared to the rural sector standard. Spending was concentrated on primary education only. In the urban zone, the poor host households not only spent a lot more on education in general but they also paid for**

secondary school expenses in particular. Was this an issue related to secondary school access and availability, or a question of household income level and spending priorities? The answer would require a further investigation but would be an important follow-up study to the pilot MEB work.

Section 4 – Next Steps

The pilot activities undertaken in Niger and Senegal to test the process of calculating a sector MEB and using the MEB threshold for resilience analysis should now be implemented elsewhere in the region as well as scaled up in Niger and Senegal. The next steps are summarized below.

Niger and Senegal – Scaling up use of the sector MEB Threshold

1) Single MEB Threshold or Multiple MEB Thresholds

This current work on the sector MEB and HEA Resilience Analysis involved setting up MEB tools and establishing a procedure that could be scaled up in the future in the region. To test the process and tools, a sector MEB was piloted in two rural agropastoral zones in Niger and Senegal. The pilot also involved integrating the MEB into standard HEA data collection and analysis tools so that there would be one cohesive approach.

To scale up this pilot and to implement HEA Resilience Analysis using the sector MEB Threshold, there are two possible ways forward:

(a) Develop a single rural sector MEB threshold and a single urban sector MEB threshold per country

The goal of this approach is to have a **single** sector MEB threshold that is applied to all rural zones as well as a separate, single MEB for all urban zones. The advantage of this approach is that it is relatively simple and requires the least amount of data collection. One rural and one urban market hub will be selected for current year price data collection of non-food items. These prices will need to be **adjusted** to the specific reference year of each rural and urban livelihood zone baseline by applying the inflation rate. Prices for food items in the healthy diet sector basket will be collected from the key rural and urban market hubs as well. Alternatively, food prices will be drawn directly from the BSS for each specific livelihood zone. The disadvantage of this single sector MEB approach is that if prices vary widely across the country then the sector MEB threshold will be rather crude. A further disadvantage is that some sector baskets such as the agriculture and livestock sector basket and/or some items (such as *zakat*) may also differ quite widely by type of livelihood zone (agricultural, agropastoral or pastoral).

(b) Develop multiple sector MEB thresholds (i.e, for each livelihood zone)

A more complex but rigorous approach is to calculate a sector MEB for each different livelihood zone (old and new). The goal is to develop a sector MEB threshold that is specific to each zone (both rural and urban). The composition of the baskets should be more or less the same for all rural zones (and an urban MEB should have a similar basket composition for all urban zones). However, prices for individual items as well as the overall cost of the sector baskets will differ as this will be determined by local prices in each zone. This approach is more time-consuming as it requires more data collection although it will better reflect the real cost of meeting a certain standard of living in a particular zone.

2) New Baselines

For new baseline work in rural Niger and Senegal, teams will need to undertake 2 additional tasks in order to integrate sector MEB analysis into the standard HEA:

- (i) Gather disaggregated household expenditure data by sector during the baseline assessment;
- (ii) Update prices in the sector baskets as well as the total sector MEB cost using the new zone's **reference year**. Use local market prices if multiple sector MEB thresholds are being developed. Otherwise, if a single sector MEB is being used for all zones, update prices by applying the inflation rate. Food prices should, however, be local.

With this information, the standard HEA baseline analysis can be expanded to include the MEB results. The analysis will focus on **who** falls below the sector MEB threshold (which wealth groups and what proportion of households they comprise); **how much below** the threshold they fall and how much more income is needed to reach the threshold; and what items in each sector basket are unaffordable for those wealth groups who fall below the threshold.

3) Outcome Analysis

The standard HEA outcome analysis will incorporate sector MEB results by including some additional data collection. The goal is to assess the difference between household *total income* by wealth group and the sector MEB threshold in any given year. To this end, sector basket costs will be monitored and updated annually.

The process will involve generating problem specifications for the food basket and non-food basket and running an outcome analysis using the MEB LIAS. The analysis will focus on **who** is affected (i.e., which wealth groups fall above or below the current year MEB threshold); by **how much** (i.e, the extent of the expenditure gap between household total income and the sector MEB threshold); and which items in the various sector baskets households cannot afford. The goal of using the MEB resilience score is to inform decision-makers about how much income is required to boost poor households to the minimum threshold of well-being.

Tracking price changes can be carried out three ways:

- Collect current year prices for each individual item in the sector baskets
- Collect current year prices for key items in the sector baskets. Apply the consumer price index (CPI) and inflation rate to the other prices.
- Apply the consumer price index and inflation rate to the whole sector MEB. If the price index for food items is significantly different from the non-food items price index, a separate inflation rate will be applied to the food basket and non-food baskets.

Note that the specific markets selected for price monitoring will depend on whether there is a single national MEB (rural and urban) or multiple MEBs. In general, applying the national consumer price index and inflation rate will likely be the most simple and straightforward approach to current year price monitoring.

Once current year prices and/or the food and non-food items inflation rates are collected, the analysis follows the same process as a HEA outcome analysis, as follows:

- **Problem Specification** – A problem specification is applied to the sector baskets. The calculation for the problem specification is the reference year cost divided by current year cost multiplied by 100.

The percentage change is then applied to the sector basket. In the LIAS, the problem specification is calculated automatically after entering reference year and current year sector basket costs.

- **Outcome Analysis** – The current-year sector MEB threshold is compared to current year changes in *total income* (by wealth group) to assess whether household income has moved closer to, or further from, the MEB threshold. This analysis allows decision-makers to see the effect of shocks and/or development inputs on household resources and to assess the extent to which household economies improved or worsened during the year as measured against the sector standards.

New Baselines in Other Countries of the Sahel Region

In countries introducing the sector MEB analysis for the first time, the first step is to modify the **composition** of the sector baskets with a review of national sector standards. Some types of services are provided free of charge by the government (or other agencies) such as some school costs and/or health costs, and this will affect the cost of those sector baskets. Water is another item that will be reviewed on a country by country basis depending on whether good quality water can only be sourced from a fee-for-service pump or improved well, or whether it can be accessed free of charge from a good quality local source. Three other baskets (Tax and community contributions (i.e., *zakat*); Agriculture & Livestock, and Healthy Diet) will also need to be reviewed.

Once the composition of each of the sector baskets is verified, **price data** will be collected for each item. If a single national sector MEB (rural and urban) is created, then the same prices will be used for each livelihood zone (adjusted for the reference year in each zone). Alternatively, sector basket costs can be calculated for each new livelihood zone using local market prices.

The **quantity** of items in the sector baskets will be determined on a zone by zone basis depending on the typical household size of poor households in that zone.

Child-Focused Analyses

More detailed household expenditure data from HEA baselines will provide an opportunity to carry out child-focused analyses, as shown in the example of health and education sector spending from Diffa town. Gaps in child-focused spending will need to be investigated further to identify if the problem is access and availability of services, or poverty and income shortfalls but the initial results are critical to first identifying what poverty means for children's health and education opportunities.

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Annex 1 – Sector Standards

Sector	Sphere International Sector Standards	National Sector Standards
WASH		
Water		
Water - drinking	3 L /person/day for drinking + hand washing	Senegal -2-5 L / day is required. Payment depends on pump availability.
Water - other use	7.5-15 l / person / day to cover all needs for drinking, cooking, bathing and hygiene.	Minimum of 1 x jerry can (@ 15-20 L) / day / pers for all use. Cost is 0,275 FCFA / L
	Quality of water should be free from risk of water-borne disease. Water purification or treatment tablets may be needed.	Niger - 2-5 L / day is required for drinking water. Payment depends on pump availability.
	The standard for water access is no more than 500 metres distance from water source to household (and time to collect water not more than 30 minutes).	Minimum of 1 x jerry can (@ 20-25 L) / day / HH for other use
Water containers	2 x 10-20 L water container per household to transport water and to store water.	
Sanitation		
Latrines	Latrines (pit or modern toilet) should be the standard. Where no latrines, the standard requires specifying a defecation site away from human habitation and promoting proper management of human waste (ie., using soil to cover excrement). At minimum, human waste should not be left open to the air and should not be left near human habitation (<i>Sphere</i>)	Niger + Senegal - 1 latrine / HH. Handwashing after using the toilet is essential. Avoid co-habitation between humans and animals. <i>Include cost to maintain cleanliness of latrine but not the cost of the latrine itself.</i>
	1 toilet for 20 people is the household standard	
	Safe location and proper lighting and/or provision of a torch is essential for girls' and women's safety	Torches included under HH items.
	Communal latrines should be located more than 50 metres from human habitation.	
Waste management	Empty HH waste at least 2 x per week. The rubbish heap (or dump site) should be at least 100 m from living areas. Standard size for a communal garbage bin is 100 L for 10 households.	Niger + Senegal - 1 x broom / HH. 1 x container for waste. Proper placement of the waste bin is important.
Drainage	Standards aim to reduce risk of infection and disease transmission as well as to avoid soil erosion. Standing water should be avoided or treated to reduce malaria risk.	Shovel or other tool required to maintain good drainage. Include 1 shovel.

Sector	International Sphere Sector Standards	National Sector Standards
WASH		
Hygiene		
Personal - soap	1 x 250 g bathing soap per person per month	Senegal - 1 x 250 gr soap + 1 x 200 gr soap / day / HH = 200-400 FCFA / day
	1 x 250 ml shampoo per person per month	Niger - 1 x 250 gr soap bar (@ 175 FCFA) / day / HH. Bar soap is used to wash hair.
Domestic - soap	1 x 200 g laundry soap per person per month	Niger - 2 x sachets (100 gr) (@ 100 FCFA) / day / HH
Hair	1 x hairbrush and / or comb per person per month	hairstyling
Ladies' hygiene	1 x washable cotton cloth per person per month	
Dental	1 x toothbrush + 1 x 75 ml / 100 g toothpaste per person per month	In rural areas, local toothbrushes from indigenous trees are used instead of purchased toothbrushes + paste.
Other	1 x nail clippers per person per month	
	1 x 250 ml lotion for infants and children up to 2 years	
	1 x razor per adult man per month	Razor blades are bought not razors.

SHELTER and HOME		
Shelter		
building materials for house construction + home upkeep	Housing materials (for building and for upkeep) should be locally available and environmentally sustainable 1 x toolbox required to repair home after seasonal storms (see under tool box, HH items)	House construction not included. Niger + Senegal - Include <i>machete</i> which is used to repair home. Local thatch and poles can be collected free of charge.
windows, door	Position windows and door to promote good ventilation	These relate to building codes when constructing new homes and are too difficult to track for the MEB
ceiling, roof	Height of ceiling must provide good ventilation and be at least 2 metres high	
floor, mats	Mat(s) should cover the ground to limit dust and prevent the spread of air-borne disease	
home compound	Have a shaded area for household activities (cooking, bathing children etc)	Not included in the basic MEB because local materials can be used.
fire risk	Housing should conform to standards for low fire risk	Not included in the MEB. Too difficult to track.

Sector	Sphere International Sector Standard	National Sector Standards
SHELTER and HOME		
Utilities & Household Goods		
Electricity		Not included in rural areas.
Lighting	1 x lantern per household and candles with matches or torch and batteries	Niger + Senegal - Chinese torches + batteries are most common. Candles are also available.
Cooking	Stove (with good ventilation and energy efficient)	New stove is not included in the MEB.
	Fuel / firewood with dry storage	Niger + Senegal - Firewood is most common. It is collected free from the bush.
	2 x cooking pots with lids	1-2 x cooking pots per year
	1 x tray / basin to prepare and serve food	Spoons, calabash, ladle, cup, kitchen knife
	1 x knife + 2 cooking / serving spoons)	
	1 x plate, spoon, glass or cup per person	
	Grinding fees (see food section on whole grains) - whole grains are preferred in terms of their nutritious value and these have to be ground.	Niger + Senegal - No set standards except the reference in Sphere on the value of whole grains.
Storing food	Unit to store food that keeps it free from contamination and parasites and is in a cool, dry place.(<i>UNHCR</i>).	Granary not included in the MEB. Include a food storage container.
Sleeping	bed, mattress, sheets, blankets	Include just blankets for young children in non-refugee contexts.
	mosquito net	Niger + Senegal - Provided free by the government or NGOs
Salt & seasoning	Use iodised salt.	Senegal - The local seasoning is composed of salt, onions, tomatoes, carrots.
		Niger - The local seasoning includes salt, flavor, leaf powder, tomatoes
CLOTHES		
Clothes - children + adults	2 x sets of clothing for local conditions including undergarments per person per year	Senegal - 1 new set of clothes + shoes per year for each age group
	1 x shoes for the local climate per person per year	Niger - Nigeriens typically "must" purchase 1 set of new clothes for the <i>Eid</i>
	2 x pajamas for infants and children under 2 years per year	In hot climates, pyjamas may not be necessary.
TAXES & COMMUNITY CONTRIBUTIONS		
Taxes & Zakat		
Payment to village chief		Niger - Payment is made for members of the family 18 years and older. Also in Senegal , payment to the village chief is an essential expense.
Zakat - in kind		Niger + Senegal - Payment is post-harvest and the rate is 10% of the harvest.
Community contributions ("Social Inclusion")		
Savings & Credit	Community self-help groups should be promoted and supported as they are good vehicles for women, men and youth to share information and discuss issues.	
Community events / Religious festivals		Niger + Senegal - There are no specific standards but buying a sheep for slaughter during <i>Tabaski</i> is very important culturally.
SECURITY & PROTECTION		
Security & Protection		
Domestic security Village guards	The primary responsibility to protect people from threats to their lives rests with the government and other relevant agencies. However, the guiding principle is to help minimise threats; facilitate people's own efforts to stay safe; help reduce exposure to risk; and support community self-help mechanisms.	Niger + Senegal - The <i>machete</i> is included under home repair. It is also used as an agricultural tool.

Sector	Sphere International Sector Standard	National Sector Standards
EDUCATION		
Primary and Secondary Education		
Primary - fees	Sphere Humanitarian Standards do not include a section on education.	Senegal - In the education sector, there are scholastic standards (ie., in French literacy and mathematics) but there are no standards with respect to the items required to achieve scholastic standards. Niger - Primary education tuition is free.
Primary - uniform		
Primary - supplies		Niger - 25,000 - 30,000 FCFA / child / year is the standard cost for supplies + food
Secondary - fees		Senegal - The government has scholastic standards in French literacy and mathematics for secondary students. Niger - Since 1998, the Niger government guarantees free education for children 4-18 years old. Attention is paid to increasing girls' education.
Secondary - uniform		
Secondary - supplies		
Secondary - residence		
Secondary - transport		

Sector	Sphere International Sector Standard	National Sector Standards
AGRICULTURE & LIVESTOCK		
Production inputs		
Production inputs - general	Example of production inputs include seeds, tools, fertiliser, livestock and livestock inputs, fishing equipment, hunting implements, loans & credit facilities, market information and transport facilities.	
Agriculture - seeds	Seeds should conform to national and local standards in terms of variety and whether hybrid or local (non-GMO) seeds are preferred	Niger - National plan in Niger is to increase access to seeds, fertiliser and other inputs.
Agriculture -fertiliser	Fertiliser should meet local standards of use	
Agriculture - pesticides		
Agriculture - tools		Senegal - At least 1 set of key tools including hoe, rake and <i>daba</i> (traditional hoe) are essential.
Agriculture - ploughing		
Livestock - water		Niger + Senegal - Appropriate inputs to meet standards of livestock production include water, fodder, immunisations and medications.
Livestock - fodder		Niger + Senegal - Water, fodder and salt are usually available free of charge
Livestock - salt		
Livestock - immunisations		Niger + Senegal - If the herd size is very small (2-3 animals) they are often immunised free of charge.
Livestock - medications		
Livestock - herding		
Micro-credit & local credit & savings	See comment below on loans and credits as a suitable livelihood input.	Niger - From 2010, the Niger government plan is to promote decentralised micro-finance modelled on local types of savings and credit (such as <i>les tontines</i>). Currently not included in the sector basket.

Sector	Sphere International Sector Standards	National Sector Standards
HEALTH and NUTRITION SUPPORT		
Health		
Health - under 5 yrs		
Clinic fee		Niger- In 2006, free health care for children 0-5 years was introduced. There is a small charge for the <i>carnet</i>
Treatment	Free vaccinations against measles. Target coverage is 90% of children 6 months-5 years (<i>Sphere</i>). Free immunisations in general recommended for infants and children (under 5) (<i>Unicef</i>)	Senegal- In 2013, the government launched a programme to increase health access and reduce mortality for children under 5. This includes free immunisations and free consultations. Niger- Immunisations 0-3 yrs: BCG, Hepatitis B, VPO, VPI, Pentavalent, Pneumo, Rota 1 & 2, VAR, Vaccin anti Amaril, Men A. Immunisations 3-5 yrs: Hepatitis B, Meningocoque A, oral polio vaccine, measles vaccine
	Free treatment for malaria	Free treatment of malaria
	Free antibiotics to treat pneumonia	Free antibiotics to treat pneumonia
	Free ORS + zinc supplement to treat diarrhea	Free ORS + zinc supplement to treat diarrhea
		There are charges for those treatments that are not provided free.
Health - 6-15 yrs (youth)		
Clinic fees	Minimum health standards depend on demographics (age and gender trends); the typical height and weight of the local population; climate (warm or cool); activity level of the population; and the prevalence of malnutrition and chronic disease.	Niger- Immunisations 5-15 years: VAT, VPH, HelpB, VAR, Men A
Treatment	There is no real threshold for medical consultations per year but the expectation is at least 1 new consultation per person per year. 2-4 new consultations per person per year is the expectation in a population affected by a crisis.	
Health - 16+ yrs (adults)		
Clinic fees		Niger- Immunisation 15-65 years: VAT, Hepatitis B, VAR
Treatment		Senegal- From 2013, some free services were introduced. Not all services are free.
Health - pregnant & post-partum women		
Clinic fees		Niger- There is a small charge for the <i>carnet</i>
Treatment		Niger + Senegal- Iron supplements up to the 40th day post partum to prevent anemia Niger- Treatment as necessary for malaria (TP1, TP2, TP3, TP4). Vitamin A during the 30 days which follow child birth. Tetanus vaccination. Iodine supplement. Care after removing the umbilical cord. BCG, VPO vaccination. Senegal- Blood work to check health status. Ultrasound. DPI and VAT. Systematic follow-up consultations for mothers and their newborns.
Traditional healer		
Home health kit	Basic pain relief, bandages for minor cuts, mosquito spray, dettol (or antiseptic cream) to clean minor wounds.	Niger- Use of ash is also advised as an antiseptic for minor cuts
Nutrition		
Nutrition support	Provide free supplements in cases of diarrhoea (ORS and zinc) and measles (Vitamin A). See also Health sector. Children 6-24 months, pregnant and nursing mothers, and people suffering from chronic illness may need vitamin supplements to ensure they are getting a nutritious diet	Niger- 2003-2013 plan is to reduce (1) incidence of under-nutrition from 20% to 10% in children under 5 yrs; (2) reduce growth delays (small for age) from incidence of 40% to less than 20% in children under 5s; and (3) reduce incidence of low birth weights. Free services are given to the treatment of malnourished children.

Sector	Sphere International Sector Standard	National Sector Standards
HEALTHY DIET		
Nutrition basics		
Nutrition basics	Local diet should meet standards for micronutrients, including sufficient niacin (found in dried fish or dried pulses) to supplement maize or sorghum-based diets; riboflavin; vitamin A & B; iron; and iodised salt	WFP Senegal- The appropriate basket includes cereal, pulses, oil, milk, salt, soap. The basket costs 5,000 FCFA / pers / month.
Healthy Diet		
	2100 kcal per person per day (<i>Sphere</i>)	
Staple grains	45-60% of daily energy should be staple carbohydrates (<i>South African healthy diet guidelines</i>).	
	Whole grain cereals have a longer shelf life and therefore if there is access to local mills then whole grains should be supported.	
Root vegetables	Sweet potatoes are an important source of vitamin A	
Animal products	53 g of protein (10% of energy in total) (<i>Sphere</i>). Other sources suggest 12-20% of daily energy should be protein	
Milk for children		
Pulses, groundnuts & oilseeds	foods (<i>South African healthy diet guidelines</i>).	
Fats	40 g of fat (17% of energy in total) (<i>Sphere</i>). Other sources suggest that fats should be no more than 25-30% of daily energy (<i>South African healthy diet guidelines</i>).	
Vegetables	Eat vegetables with colour such as dark leafy greens, carrots, tomatoes (<i>Unicef</i>)	
Fruits	Eat fruit with colour such as mangos, oranges, pineapples)	

Annex 2 – Items in the Sector Baskets

Sector / Item	Sector / Item	Sector / Item
Shelter and Home	WASH (water, sanitation, hygiene)	Clothing
shelter repair after seasonal storms	drinking water	clothes - baby/child (0-5 yrs)
tool for shelter repair (<i>machete</i>)	water for washing and cooking	clothes - boy (6-15 yrs)
firewood / fuel for cooking	water containers	clothes - girl (6-15 yrs)
lantern	broom (waste management)	clothes - men (16 yrs +)
candle and matches	shovel (waste management)	clothes - women (16 yrs +)
torch batteries	waste bin	sweater/coat - baby/child (0-5 yrs)
torch	soap (250 gr)	sweater/coat - boy (5-15 yrs)
iodised salt	laundry soap (220 gr)	sweater/coat - girl (5-15 yrs)
cooking pot	hair cut	sweater/coat - men (16 yrs +)
cooking and serving spoon(s)	comb/hair brush	sweater/coat - women (16 yrs +)
cutting knife	feminine hygiene (cotton pads)	shoes / sandals - baby/child (0-5 yrs)
calabash + ladle	razor blades	shoes / sandals - boy (5-15 yrs)
cups and glasses	lotion (for dry, cracked skin)	shoes / sandals - girl (5-15 yrs)
serving tray and bowl	toothbrush and paste (urban areas only)	shoes / sandals - men (16 yrs +)
food storage container		shoes / sandals - women (16 yrs +)
sleeping mats / floor mats (traditional)		
baby blanket		
Education - primary + secondary	Health	Agriculture & Livestock
school fees - primary	consultation fee - baby/child 0-2 yrs	seeds - local
school supplies - primary	treatment fee - baby/child 0-2 yrs	hoe
school fees - secondary	consultation fee - child 3-5 yrs	rake
uniform - secondary	treatment fee - child 3-5 yrs	<i>daba</i> (traditional hoe)
school supplies - secondary	consultation fee - youth 6-15 yrs	medication - livestock
residence fee - secondary	treatment fee - youth 6-15 yrs	
transport fee - secondary	consultation fee - adults 16+ yrs	
	treatment fee - adults 16+ yrs	
	consultation fee - pre-natal	
	treatment fee - pre-natal	
	consultation fee - post-partum	
	treatment fee - post-partum	
	paracetamol	
	mosquito spray	
Taxes & Community Contributions	Protection and Security	Items to Monitor (currently free)
tax - payment to the village chief	village guardian (in times of conflict)	mosquito net
zakat		zinc vitamin supplement
Tabaski (1 x religious event)		vitamin A supplement
		antiseptic soap (dettol)
		oral rehydration salts
		immunisations (children)
		immunisations (livestock)
		firewood (if free)
		salt, fodder

Annex 3 – Diffa Agropastoral Household Expenditures and the Sector Baskets

WASH	2015-2016	
	Poor - Mainé	sector MEB
drinking water	4200	9,078
jerry cans	2075	1,974
broom / latrine upkeep		99
shovel	1278	987
trash bin	515	659
soap	8522	8,571
comb	364	663
hair care	1000	989
ladies hygiene		1,184
razor blades	700	3,079
lotion (children 0-2 yrs)		1,783
TOTAL	18654	29,067

Shelter and Home Items	2015-2016	
	Poor - Mainé	sector MEB
local material to repair homes	2,500	2,500
<i>machete</i>		2,287
lantern		350
torch batteries	4,415	3,269
torch		5,306
iodised salt + seasoning	35,000	19,779
cooking pot	0	2,637
cooking knife, spoon and ladle	900	2,472
tumbler	500	5,769
serving tray and bowl	520	618
storage container		8,241
sleeping mats	2,500	8,241
blanket	0	3,948
TOTAL	46,335	65,420

Clothes	2015-2016	
	Poor - Mainé	sector MEB
Clothes, children 0-5 yrs	6500	4,035
Clothes, youth 6-15 yrs	7500	12,845
Clothes, adults 16+ yrs	5900	12,559
Shoes, children 0-5 yrs	2700	987
Shoes, youth 6-15 yrs	2100	2,637
Shoes, adults 16+ yrs	2200	1,747
TOTAL	26900	34,810

Education	2015-2016	
	Poor - Mainé	sector PDM
School fees, 1ry (COGES)	2,350	2,350
Supplies, 1ry	2,910	825
School fees, 2ry - boy		
Supplies, uniform, 2ry - boy		8,109
Residence, 2ry - boy		3,791
School fees, 2ry - girl		
Supplies, uniform, 2ry - girl	1,000	8,109
Residence, 2ry - girl		3,791
Transport, 2ry		7,154
TOTAL	6,260	34,129

Health	2015-2016	
	Poor - Mainé	sector PDM
Consultation, children 0-15 yrs	1,945	5,030
Treatment, children 0-15 yrs	1,285	8,737
Consultation, adults 16+ yrs	1,400	2,144
Treatment, adultes 16+ yrs	3,145	4,615
Consultation, pregnant woman	200	0
Treatment, pregnant woman	150	0
Pain relief medication	255	1,327
Mosquito spray		247
Traditional medicine	1,535	
TOTAL	9,915	22,099

Agriculture Livestock	2015-2016	
	Poor - Mainé	sector MEB
Livestock drugs/treatment	400	1,646
Seeds	2,600	8,241
Pesticides	520	
Livestock purchase	900	
Farm tools	1,320	6,861
TOTAL	5,740	16,748

Sector MEB - Non-food Baskets	2015-2016	
	Poor - Mainé	sector MEB
WASH	18,654	28,357
Shelter & Home	46,335	65,680
Clothes	26,900	34,810
Education	6,260	34,129
Health	9,915	22,099
Agriculture & Livestock	5,740	16,748
Tax & Community exp.	24,870	34,841
TOTAL	138,674	236,664

							HH size:	8
2100 kcal pppd pppd = per person per day	MEB food basket	kcal pppd	kcal/KG	KG pppd	price / KG	Cost pppd	Cost per HH per day	Cost per HH per year (x 365 days)
1	2	3	4	5	6	7	8	9
Cereals / Roots / Tubers	55%	1,155				88.83	710.65	259,386
millet		785	3630	0.216	250	54.06		
sorghum		196	3550	0.055	250	13.80		
maize		46	3630	0.013	500	6.34		
rice		128	3500	0.037	400	14.63		
Protein - legumes, animal products, nuts	20%	420				32.23	257.85	94,115
groundnuts, dry			5790	0.000		0.00		
sesame		168	5920	0.028	300	8.51		
cowpeas, dry		252	3400	0.074	320	23.72		
Fat	24%	504				56.00	448.00	163,520
groundnut or vegetable oil		504	9000	0.056	1,000	56.00		
Fruits & vegetables	1%	21				20.43	163.42	59,648
onions		11	480	0.023	268	6.14		
tomatoes		10	210	0.048	300	14.29		
	100%	2,100				TOTAL		576,669

TOTAL INCOME (CASH)		
	Poor - Mainé	Thresholds
harvest - consumed	181,272	
harvest - sold	9,000	
animal products - consumed	2,281	
livestock sales	41,250	
casual labour - temporary	152,148	
self-employment	103,100	
food aid - formal	25,515	
other	143,138	
survival threshold		478,885
livelihood protection threshold		47,174
sector MEB threshold		286,980
TOTAL	657,704	813,039