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Applying the Household Economy Approach to Measure and Address Income Gaps in Agriculture Supply Chains

Guidance Note for the Living Income Community of Practice – December 2019

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The authors would like to thank Kristin Komives and Adam Romo from ISEAL Alliance, along with GIZ for making this work possible, as well as the Living Income Community of Practice Steering Committee and Technical Advisory Committee* for their questions and considerations. Input from these individuals and groups has helped shape the content of this document. Special thanks also to all of the communities, organizations, researchers and practitioners who have participated in the research which has provided examples for this guidance note.

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I. Introduction

A. About HEA

Household Economy Analysis (HEA) was originally developed over 20 years ago to improve humanitarian assistance and food security programming. Since then, more than 500 HEA studies have been conducted, across various contexts and purposes, in over 70 countries. HEA has been widely applied by dozens of international non-profit organizations; bi-lateral and multi-lateral donors including the World Bank, USAID, DFID, UNDP, UNHCR, GIZ, and FAO; and several for-profit companies and research institutions. In addition to its original intent to improve humanitarian aid, HEA is now used by international development programmes, animal welfare initiatives, sustainability standards, social safety net programmes, and others. For the purpose of this short guidance note, the authors focus on how HEA is used to measure and analyse total household incomes, and how these income measurements can be used with different thresholds/benchmarks to, **a.** calculate income gaps and **b.** help design and target supply chain interventions.

Household Economy Analysis is both a research methodology and analytical tool. The methodology¹ involves the use of standardized semi-structured interview formats and qualitative tools for gathering (primarily) numerical data. It incorporates a system of cross-checks at several levels, including within the interview process itself. HEA training programmes are also standardized, with data collectors completing classroom and field modules over the course of about a week, in order to maintain consistency in data collection. Data collectors are often professionals from local governments and/or international development organizations and typically have some field experience, though student researchers have also been engaged. Given the skill level required for this type of field research, data collectors are supervised in the field by an experienced HEA researcher for much, if not all, of the interviews. This guidance provides a fairly brief overview of Household Economy Analysis. Readers can learn more about how to apply the methodology from wide range of publicly available books and resources, several of which are listed in Annex 2.

It is also worth emphasizing at the start, the importance of the *analytical framework* aspect of HEA. Some of its greatest value lies in how the information is organised and used for the practical purposes of intervention modeling, programme design, and ongoing analysis. It is a systems-based approach in that it considers all aspects of local livelihood economic systems and captures the dynamism of these systems both within individual households and within wider communities. This means that HEA data not only provides a comprehensive picture of household incomes and livelihoods at a moment in time, but can be used to demonstrate how livelihoods are affected over seasons and years, as prices, weather patterns, market dynamics and other conditions change. It also demonstrates how livelihoods of different wealth

¹ HEA interview formats can be (and have been) implemented in focus group discussions or in individual household interviews with randomized household sampling. In both cases, livelihood zoning is done first to stratify the sample geographically. Within each geography, wealth groups are identified and clustered based on qualitative/focus group discussions. Within each of these wealth groups, households, or groups of households, are then selected for household economy interviews.

groups within a community relate to one another – as sellers and buyers of labour and commodities, and as social support.

While many HEA studies have been conducted over the years, not all of these are publicly available. FEG is currently consolidating a global database of existing HEA studies for HEA practitioners with some access restrictions. Annex 3 of this report offers a list of known HEA studies through 2018 by country and Annex 2 lists those HEA reports that are publicly available

B. Purpose of the Guidance Note

"Using a living income benchmark as an aspirational goal has the advantage that it encourages actors to think more holistically about household livelihoods and how their own actions affect them"

As the quotation above implies, there are 3 essential components in living income work: 1. Living income benchmarks; 2. Household livelihoods (including incomes); and 3: Actions to improve incomes. This guidance note was commissioned to show how the HEA analytical framework aligns with each of these components. In doing so, the document provides an introduction to how HEA serves the stated goal of the Living Income Community of Practice - to support activities focused on improving smallholder incomes towards living incomes, aiming to enable smallholder farmers to achieve a decent standard of living.

Section II, and largest part of this guidance, will address component #2 of living income work – measuring household livelihoods and actual (or total) incomes with HEA studies. This section will describe HEA's comprehensive approach for measuring and analyzing total annual household income, illustrating distribution of income seasonally, and articulating income from various commodities and livelihood activities. Section III will discuss income benchmarks that indicate the costs/expenditures necessary to meet different standards of living, and which are used with household income data to estimate income gaps. This section will describe benchmarks that are commonly used alongside HEA total income data, compare them with Anker Methodology living income benchmarks, and explain how these can be used together on an income ladder. Section IV briefly describes the decision support and scenario analysis capabilities of HEA, which help users identify appropriate actions/levers for improving household incomes toward different income targets and model future impacts.



In the final section, **Section V**, the authors compare and contrast the opportunities and costs associated with new HEA research vs using existing studies, and discuss the conditions under which one or the other may be more appropriate. This guidance note is meant to serve as introduction to HEA for the purposes of the Living Income Community of Practice (LICoP) community, and is not intended to be a comprehensive 'how to' guide. A number of publicly-available books and documents have been written which dive deeper into the methodology, analytical capabilities, and uses of HEA for those who wish to learn more (see Annex 2).

C. Terms and Concepts

Glossary of Terms

Household Economy Analysis	assess how households secure a livelihood in a baseline year, how household income changes from year to year depending on seasonal production and market conditions or as the effect of a project intervention, and whether income gaps emerge in a bad year. HEA involves a village-based inquiry into all the ways households produce food and earn cash income, including food sources that are grown, collected, purchased or received as aid, gifts or payment, and income sources that include local and migratory labour, milk, butter and crop sales, self-employment, trade, credit and sales of bush products. Data on expenditures is also collected and is balanced against income earned.		
Consumption Year	The start month for the reference year begins with the consumption of crops from the primary harvest and typically marks the end of the hunger season. The year covers a full 12-month period. In pastoral areas, the consumption year starts with the onset of the main milking season.		
Reference Year	All baseline data refers to a reference year. Typically, the reference year reflects a year that is neither very bad nor very good but a middling year with respect to production, rainfall and market conditions.		
Livelihood Zone	HEA data is collected by livelihood zone (LZ). The LZ is a geographical area defined by a common system of production (agricultural, agropastoral, pastoral and so on); common access to markets; and common hazards.		
Wealth Groups	Baseline data is disaggregated by wealth group. Typically, in HEA, there four wealth groups: very poor; poor; middle; and better-off. Stand baseline data does not reflect a statistical average but rather what is m common for each wealth group.		
Food Income	Food income is the amount or value of all food secured and consumed by the household from their own production, in-kind payments, wild collection, or gifts.		

Total Income	Total income in HEA refers to total household resources that were secured during the reference year including food sources (i.e., food income) and cash income. Food and cash earnings are converted into a "common currency", so that they can be compared and analysed together. The common unit used is either kilocalories and/or the local currency, depending on the needs of the user. For the LICoP, all food income and cash income would be converted to local currency.
Survival Threshold	The survival threshold is calculated to provide a measure of whether household income is sufficient in any given year to meet basic survival needs - such as kilocalories, water and items to prepare and cook food - in the short- to medium-term.
Livelihood Protection Threshold	The livelihood protection threshold is calculated to provide a measure of whether household income is sufficient in any given year to meet livelihood needs, such as the maintenance of livelihood assets like livestock, land, inputs, and transportation, over the medium- to long-term. The results generated of numbers of people falling below the threshold should trigger a humanitarian intervention to protect lives and livelihoods and to prevent destitution.
MEB / Minimum Expenditure Basket	The MEB threshold in HEA involves calculating the cost of meeting basic but decent living standards based on international and national guidelines and targets ² , using prices collected from local markets and validated locally.

While HEA is well aligned with the Living Income Community of Practice concepts, there are some important terminology differences to note. Likewise, while many of the concepts are similar, there are a few differences in how these concepts are put into practice.

Terminology

In HEA, *expenditure thresholds* indicate the level of expenditure, or necessary costs, associated with achieving a defined standard of living. Household incomes are compared against these thresholds to estimate gaps in household income. The term *expenditure threshold* (or *consumption threshold*), therefore, means the same thing as *cost of living* threshold, and it equates to the LICoP's term *income benchmark*. One difference is that, while the LICoP generally talks only about the 'living income' benchmark, HEA identifies several thresholds against which current income can be compared.

In HEA, the term **total income** equates to the term **'actual income'** that is typically used by the LICoP. Total income is inclusive of cash income and non-cash income. Non-cash income includes, most importantly, the amount of food (crops, livestock products, and wild-food collection) that is consumed by the household itself (also referred to as **food income**). It also includes in-kind payments for labour or services. Total income can be expressed as either a cash value or converted to kilocalorie value, depending

² Note that the definition of MEB is the same as living income threshold defined by the LICoP, but differs somewhat from the Anker Methodology in how it is calculated. This is discussed in the section on thresholds below.

on how the figure is intended to be used (e.g., for food security, pricing, development, etc.). For the purpose of the LICoP, this data would most likely be presented in terms of cash value.

Concepts

In comparing HEA concepts to those applied by the LICoP in West Africa³⁺⁴, several differences emerge relating to measuring decent standards of living, data collection, and population disaggregation.

<u>Data collection</u>: As mentioned in the introduction, the power of HEA lies in its analytical capabilities, which is made possible through comprehensive data collection and data triangulation, and by using tools to organise the data to analyse livelihood *systems* within a particular landscape (as discussed and illustrated in later sections of this guidance). HEA income, expenditure and production data is collected either using focus group interviews (most common approach) or through semi-structured interviews with a randomized sample of households (less common approach) in each wealth group. In comparison, the household income research that was used to calculate income gaps for Cote d'Ivoire and Ghana, both conducted by the Royal Tropical Institute (KIT)⁵, relied on structured surveys to collect production, income and expenditure data. Focus group discussions were used by KIT as well, but to gather qualitative information and understand context.

<u>Household size</u>: Similar to the methodology used by KIT in West Africa, HEA uses a household size, rather than a typical family size⁶. Household size is defined as those "eating from the same pot". Size of household is determined through interviews with households in each wealth group, and for each wealth group, an *average* (or *typical*) household size is calculated. This means that the household size can differ by wealth group; however, a weighted average can be determined. If an Anker Methodology living income benchmark is used to calculate the gap, the researcher would need to adjust the Anker benchmark based on the household size that was determined in the HEA study⁷. This is the approach that was also used for the KIT studies in West Africa.

<u>Cost of production</u>: Most HEA studies calculate the cost of production for all livelihood activities together, meaning they do not typically capture input costs for each agricultural product individually. This is because intercropping is not uncommon, and inputs such as fertiliser can be shared across crops, making it difficult for farmers to estimate the amounts used on each. That said, new HEA studies can and have (when needed) calculated input costs for specific commodities. This is something that would need to be factored in to the design of a new study – for example, when users want to determine income gaps for one commodity only, or want to use commodity specific costs of production for (fair) reference price estimations.

³Tyszler, M., Bymolt, R., & Laven, A. (2018) *Analysis of the income gap of cocoa producing households in Côte d'Ivoire*. Royal Tropical Institute (KIT).

⁴ Tyszler, M., Bymolt, R., & Laven, A. (2018) *Analysis of the income gap of cocoa producing households in Ghana*. Royal Tropical Institute (KIT).

⁵ Bymolt, R., Tyszler, M., & Laven, A. (2018, July). Living income analysis: Measuring against the benchmark. Royal Tropical Institute (KIT).

⁶ The Anker methodology uses a typical family size, which is determined using a multiple step process described in *Living Wages Around the World*.

⁷ Using either the weighted average, or assessing the gap for each wealth group individually using the average household size for that wealth group.

<u>Labour input</u>: HEA typically captures the amount of labour that a household hires for different types of work, along with the wages that are paid. Most HEA studies do not capture household labour that is used for different types of work. However, an estimation of household labour usage has been done for certain studies in the past, and can be built into the design of new HEA studies when needed.

<u>Measuring "decent standard of living"</u>: A *living income benchmark* is defined by the LICoP as, "Calculating the cost of a decent standard of living in a particular place". This definition is the same as the definition for the *Minimum Expenditure Basket (MEB)* used in HEA. MEB includes all of the elements listed in the definition of living income as well⁸, and uses international standards to guide cost calculations. The results from a MEB analysis will differ from those of the Anker Methodology⁹ due primarily to differences in data collection methods and the international standards that are used. This is discussed in more detail in section 5.2.

⁸ Elements of a decent standard of living include food, water, housing, education, health care, transportation, clothing, and other essential needs including provision for unexpected events

⁹ Anker, R., & Anker, M. (2017). *Living Wages Around the World: Manual for Measurement*. Northampton, MA: Edward Elgar.

II. Measuring and Analyzing Income with Household Economy Analysis

Questions answered in this section:

- How do we think holistically about livelihoods?
- How do we measure mixed-income livelihoods including: (a) income from cash crops; (2) other farm income; and (3) off-farm income? How do we measure food grown for subsistence?
- How do we take into consideration farm assets?

The primary components of HEA that are used for calculating household incomes are: 1. Livelihood zones; 2. Wealth group breakdown; and 3. HEA baselines. The HEA framework allows income data to be collected and presented in terms of annual income as well as seasonal distribution of income (as well as annual or seasonal production and expenditures).

A. Livelihood Zones and Wealth Groups

Livelihood zones, established through livelihood zone mapping, are an essential starting point to understanding livelihoods, providing a geographical framework for clustering households that have common systems of production; common access to markets and infrastructure; and common hazards. Within each livelihood zone, communities are identified for sampling. Within each community, wealth groups are defined based on local definitions and discussions with key stakeholders. Wealth groups are thus the next level of disaggregation, establishing commonality among households with respect to productive assets and other characteristics deemed important. There are typically 4 wealth groups identified, corresponding roughly to very poor, poor, middle, and better-off groups. For each wealth group, <u>baseline data is gathered either through focus group interviews or individual household surveys</u>. It is worth noting that typical size of a household for each wealth group is also determined though these focus groups or surveys. Thus, different wealth groups can, and often do, have different average household sizes.

B. Quantifying Production and Total Income with HEA Baselines

HEA baselines quantify food and income from diverse sources for a reference year and express the data in a common "currency" (e.g., food that is produced and consumed by the household can be valued in cash terms and then expressed together with other cash income in local currency). Baseline data is the core input in the HEA farm economics model and is used both for scenario modelling and for comparison of annual total household income against various cost of living thresholds/benchmarks. An HEA practitioner is like a farm accountant. For each crop, they ask how much was produced annually; how much was used for seed or other purposes (such as gifts or *zakat*); and how much was sold. What remains is the net consumed (see table left for sorghum). A similar process is followed for each food source, the key questions covering how much was produced/ earned/collected or received as gifts; how much was sold; how much was used for other purposes; how much was lost post-harvest, and the net amount consumed. Once each food source is quantified, sub-totals are calculated and then added to reach a final total (see Step 2 below).

TITLE OF ASSESSMENT	(NG 04) NORTH-EAST SAHELIAN MI				
	SUMMARY	Y			
WEALTH GROUP	BASELINE				
District/Ward number	Very Poor	Poor	Middle	B/Off	
Sorghum: kg produced	167	235	1063	1788	
kcals per kg	3550	3550	3550	3550	
sold/exchanged (kg)	0	0	525	1000	
price (cash)			80	90	
income (cash)	0	0	42000	90000	
other use (kg)	14	29	119	206	
kcals (%)	10%	11%	18%	15%	

Step 1 – Shows how crop production is investigated by looking at total produced, total earned and net consumed.

TITLE OF ASSESSMENT	(NG 04) NORTH-EAST SAHELIAN			
	SUMMA	RY		
WEALTH GROUP	BASELI	NE		
District	Very Poor	Poor	Middle	B/Off
Food Summary: total (%)	100%	103%	107%	113%
crops	27%	31%	66%	70%
livestock products	0%	0%	1%	3%
payment in kind	0%	0%	0%	0%
purchase	60%	63%	40%	39%
food aid	13%	10%	0%	0%
other (gifts, wild food, fish etc)	0%	0%	0%	0%
Income Summary: total (cash per year)	382300	499550	1448475	2798370
crop sales	39350	94500	832075	1711370
livestock product sales	450	900	30000	72000
livestock sales	10300	28100	230000	475000
employment (e.g. labour) + remittances	262000	193200	0	0
self-employment (e.g. petty trade)	70200	182850	356400	540000
safety nets	0	0	0	0
other (gifts, wild food sales, fishing, etc)	0	0	0	0
Expenditure Summary: total (cash per year)	377429	484670	1411591	2630374

Step 2 – Shows how the amount of food energy consumed from each food source and the cash earned from each income source is synthesized

The inquiry into cash earnings follows a similar process. For each cash source, we ask how many family members carry out the activity (this can also be disaggregated by gender and age); how many days and weeks in the year they worked; how much was earned daily; and the total income earned. Sub-totals for

each food and cash income category are then added to reach gross annual cash income (see Step 2). Household annual expenditures are likewise accounted for by sub-category (such as household items, clothes, health & education, production inputs and so on). An important cross-check done during interviews and during data analysis ensures that income and expenditure by and large balance especially for the poorer wealth groups who are unlikely to generate savings.

TOTAL INCOME (CASH)	Note: Cash income adjusted to HH Size 9				
	V.Poor	Poor	Middle	Better-off	
own crops consumed	63360	71304	153124	163293	
own crops sold	50593	94500	680789	855685	
own milk/meat	0	317	2466	7404	
milk sold	579	900	24545	36000	
livestock sales	13243	28100	188182	237500	
wild foods	0	0	0	0	
labour	336857	193200	0	0	
employment	0	0	0	0	
self - employment	90257	182850	0	0	
small business	0	0	291600	270000	
gifts/remittances	0	0	0	0	
food aid	31337	22556	0	0	
PSNP	0	0	0	0	
other	0	0	0	0	
other	0	0	0	0	
other	0	0	0	0	
survival threshold	268305	268305	312487	314241	
l/hoods prot. threshold	431826	441208	782621	810911	
MEB threshold	831427	831427	831427	831427	
Total	586225	593728	1340706	1569881	

Step 3 – Shows how total annual household income from both food and cash is converted into a cash value

The next table (Step 3 above) illustrates **total annual (food + cash) income** per wealth group. The important difference between Step 2 and Step 3 is that Step 3 shows all food and income sources converted into a common "currency", in this case cash. For this study, food consumed was converted into a cash value using the weighted consumer price for a locally-defined staple food basket.¹⁰ This calculation is not done by hand but is written into the data storage spreadsheet so that results can be generated quickly. Step 4 shows how results are typically graphed, usually by comparing the findings across wealth groups. The important point is that the relative contribution of each food and income source toward annual household income can be seen and used for analysis.

In most current HEA studies, *total income* is expressed as total *gross income*. This is because most HEA studies, which have been done for the purpose of informing humanitarian programming, put the expenditure data (including input data) into the expenditure threshold (i.e., income benchmark) (discussed in Section III). However, net income can also be calculated either by calculating the net profit per commodity and/or by calculating total net household income (i.e., total gross income minus total

¹⁰ Cash value for food consumed can also be determined using consumer prices for the actual food consumed, but this add a level of complexity which we will not go into here.

livelihoods input costs). The calculation of total net income makes use of the baseline expenditure data. In an HEA baseline, households are asked to estimate their annual spending on inputs such as seeds, fertiliser, pesticides, agricultural tools, land rental, land tax, hired labour, water, feed, vaccinations and medication for livestock, and any investment and/or business credit. These costs can be subtracted from gross income to find net income. For the calculation of net profit per commodity, a detailed expenditure breakdown by commodity is added to the standard HEA expenditure question. This has been done in HEA work for companies and standards, most notably in Indonesia for Rainforest Alliance, and involves modifying forms prior to the start of field work to show input spending by commodity. ¹¹



Step 4 – Presentation of results. Shows the relative contribution of each food and income source to total income.

The HEA baseline also includes a breakdown of household productive assets by wealth group. Productive assets include family labour (or household size), land owned, rented in and cultivated, herd sizes by livestock type and finally other assets owned by the household such as coffee bushes, trees grown for sale, vehicles and so on. HEA studies can be designed to capture individual crop productivity as production per hectare. This has been done in the past for studies designed to inform supply chain initiatives. This calculation could be adapted in future work to address land productivity by commodity although it is not yet part of a standard HEA.

¹¹ JL Conaway, 2013: *HEA Pre-Intervention Baseline for Impact Evaluation of Rainforest Alliance Cocoa Certification Programme in South Sulawesi*, Rainforest Alliance and ISEAL.

C. The HEA Analytical Framework

Questions answered in this section:

- How is data collected and analysed?
- How is data analysed and used for targeting?
- What is the return on labour for target commodities? How do we value family labour?
- How do we measure labour return for different livelihood activities in mixed farming economies?
- How does HEA provide seasonal context, and why is this important?
- Do farmers have the resources to weather shocks and protect their livelihood assets?

The strength of HEA lies in its analytical framework, which converts all production and cash earnings into a common unit (kilocalories or cash). This allows for a full and proper accounting of gross and net income from diverse small-holder farming economies where livelihoods often comprise a range of activities. HEA is sufficiently flexible to cover all types of small-holder economies from pure crop-based economies to pastoral and mixed agropastoral-fishing communities. Notably, the HEA method and field tools can be deployed in different ways. For instance, a standard HEA uses focus group interviews (a qualitative method) to quantify gross income. However, randomised control methods have been applied as well.¹² The results of an HEA analysis all answer the core question, "Do households earn enough total income to meet their needs?" using various cost of living (or expenditure) thresholds to measure basic needs.

Analyzing Incomes and Labour Return on Investment

The completeness of HEA data combined with its analytical framework allows users to express incomes in various ways. This includes calculating total annual household income as well as net income from specific livelihood strategies or commodities. Combined with data collected on labour inputs, the HEA framework can be used to calculate true costs of production, by factoring in the value of households' own labour. This same data can be used to calculate a return on labour investment for different income-earning activities.

Expenditure on Cocoa Production				
	Whole			
Expenditure per person per year	Sample			
Fertilizer, pesticides	130,736			
Land and trees	71,039			
Payment for labor	11,426			
Estimated value of HH labor	618,328			
Estimated interest on cocoal loans	2,357			
Total Cost of Production	833,885			

To illustrate with a specific example, in Indonesia, farmers in a cocoa growing region were asked to estimate the amount of family labour spent on cocoa production. Family labour input was converted into

¹² ibid

a cash value using local daily wage rates. This labour data was then added to the other input costs of cocoa production including fertiliser, pesticides, land, trees, interest on cocoa loans and hired labour (see table at left). Total production costs were then subtracted from the cash earnings from cocoa sales to estimate net cocoa profit. This process showed the significance of putting a value on family labour. It also helped assess the production costs and real profit of a commodity; helped planners to better understand the opportunity cost of an activity; and gave insights into the seasonal peaks and troughs in labour demand and supply.

We can use this same data to calculate the return on households' labour investment. To do this we would remove the value of the HH labour from the table above and divide the recalculated net income by average number of household labour days (which in this case, was 93.7). HEA itself can take all these strands of data and weave them into a single, cohesive analytical framework with the end picture always being total household income, but with each part of the equation accessible for further analysis.

Calculating the Cost of Resiliency

HEA analysis incorporates an understanding of household resiliency. Resiliency is the ability of a household to recover from periodic events or hazards, such as price drops or poor rainfall, which can negatively affect household income. When these events recur, households may need to sell off productive assets in order to meet basic needs. This is often referred to as livelihoods erosion. The *cost of resiliency* is the extra cash resources that households need in reserve (i.e., savings¹³) in order to sufficiently cope with and recover from these types of periodic events, avoid livelihoods erosion, and maintain living income over time. These resiliency costs can be determined using HEA analytical tools by combining scenario modeling (using historical data from hazard years with HEA household coping information), alongside HEA baseline data to determine the savings required to protect living income levels. It is worth considering whether resiliency costs should be subtracted from household incomes as an additional cost of production¹⁴. For more information about how this is done, please refer to additional tools and resources in Annex 2, on resiliency.

¹³ The *cost of resiliency* savings is different than the savings that is factored into Anker-methodology living benchmarks. The latter is savings for event that can affect anyone regardless of their livelihood, such as death or

¹⁴ Note that resiliency cost, which is on the income side of the equation, is different from 'percentage savings for unforeseen events' that is incorporated into Anker Methodology living income benchmarks on the benchmark side of the equation. The latter amount covers unforeseen events, such as death, illness, etc. that could be experienced by any family/household regardless of how they make their living. Resiliency costs, as defined in this guidance, are specific to agricultural livelihoods which are inherently more vulnerable to variations in weather, market prices and other external factors than most other livelihood activities.

Intervention Targeting

By measuring total income, we come away not just with a more holistic understanding of mixed farming livelihoods but also with the tools to target interventions. The starting point is geographical targeting, then household targeting. HEA answers central questions about where a particular commodity is produced and **who** (which wealth group) is involved in producing the commodity (see livelihood zoning in 3.1. Glossary of HEA products). Thus, we seek first to understand how differences in assets or ecology become drivers of poverty and/or food insecurity and second to understand the typical economy for each different sub-group. Once target groups are selected, leverage points within the local production system can be assessed by comparing net income to gross income using HEA baseline resources and economic modelling. This analysis reveals where the margins for profit can best be found whether by affecting the cost of inputs or by affecting productivity gains through higher quality outputs. Effective targeting, therefore, uses the range of HEA components, from livelihood zoning and wealth breakdowns to baseline food, income and expenditure data and scenario modelling.



The following graphs illustrate how HEA, by mapping income differences across landscapes, can be used for geographic targeting. The graphs compare household income levels across three livelihood zones in Yobe State, Nigeria, and measure these against different HEA income targets. The purple line shows the MEB threshold. The HEA analysis delivers 4 key results, including a. numbers of people below the threshold(s), b. the extent of the income gap, c. where households facing food and income gaps live, and d. what assets and income are required to close the gap.







Livelihood Zone NG05

Seasonal Analysis





In the graph, the red color indicates months during a given year when there are predicted income gaps and when poor households will not be able to meet food and non-food cost of living thresholds. These deficit months occur right before the new harvest in September.

In addition to calculating annual household income, HEA calculates the total income each month to illustrate seasonal variations in both cash income and food consumption. This analysis is important so that interventions are informed by periods of deficit. The data also points to high and low labour periods, which helps in planning interventions around household availability. Finally,

the seasonal income data is compared to income benchmarks, which allows users to identify the months in which household fall below or above the benchmark. It is not uncommon for households to be above a benchmark over the course of a year, but fall below the benchmark during certain lean periods. This again aids intervention design and planning.

III. Measuring Household Economies Against Thresholds/Benchmarks

Questions answered in this section:

- What percentage of farmers have household incomes above the living income benchmark in their area?
- What is the gap between reference year farmers' incomes and a living income?
- What is the gap between reference year net income from a crop and the crop income benchmark?

A. Typical HEA Thresholds – Survival, Livelihood Protection and the MEB

HEA baselines are often described as a **quantification** of livelihoods (including incomes). This accounting process involves a full investigation of all food and income sources, the sum of which is typically expressed in cash terms. In HEA, total household income is typically measured against at three thresholds (i.e., targets) that ask variations on the question: *is household income enough?* These three thresholds are the *survival threshold*, the *livelihood protection threshold*, and *minimum expenditure basket (MEB)*, respectively. Each of these thresholds can be thought of as a rung on an income ladder, with each successive threshold representing improvements in household livelihoods. Other thresholds or benchmarks, such as the Anker Methodology living income benchmark, could be added to the ladder¹⁵.

The first two targets are the *survival threshold* and the *livelihood protection threshold*, respectively. Survival and livelihood protection thresholds calculate costs of living based on the actual expenditures and quality of life that households have in a typical year, as opposed to a higher/aspirational quality of living. The data used to calculate these thresholds comes from the baseline data itself. The primary purpose of the survival threshold and livelihood protection thresholds is to inform humanitarian aid. With a baseline understanding of how households survive and maintain their livelihoods in a typical year, researchers and analysts use climate, market and other data during bad years (or forecasted bad years) to model the likely livelihood impacts. These 'bad year' income levels are examined against the thresholds to measure the income gaps and determine the point at which household incomes are likely to fall to crisis levels. This information, coupled with population data, helps decision makers determine the scale of humanitarian assistance needs, enables better targeting, and triggers timely response efforts.

The survival threshold, as illustrated in the diagram on the next page, answers the question: *Are households food secure? Do we need to save lives?* The livelihood protection threshold answers the question: *Are households able to maintain their livelihoods and rebuild post-crisis? – i.e., are they livelihood secure? Do we need to protect assets and prevent livelihood erosion?*

The third threshold is the **Minimum Expenditure Basket** threshold (**MEB**). Unlike the survival and livelihood protection thresholds, which use data from the HEA baseline and calculate costs of living based on *actual* quality life, the MEB gathers and uses new information to construct a cost of living basket that represents a decent standard of living for households. While MEB is often done simultaneous to HEA

¹⁵ Though it has not been well tested, we would expect the Anker Methodology benchmark to sit higher than the MEB threshold. This is largely because the MEB is based entirely on local primary data. MEB housing costs also tend reflect the better housing available in a geography rather than ideal minimum housing standard.

baseline studies, the methodology can also be implemented independently. The MEB threshold is most similar in concept to a living income benchmark, as it answers the question: *What does it cost to achieve a decent standard of living?* Of all thresholds typically used in HEA, MEB provides the highest income target, reflecting the cost of a basic and decent standard of living based on combined international and national standards.



It is up to the users of an HEA study to determine which thresholds are most useful. This will depend on the purpose of the study and state of current incomes in the communities. For members of the LICoP, one would expect that the MEB thresholds would be needed at a minimum. If the gaps between current incomes and MEB thresholds are significant, then the first target may be the livelihood protection threshold, followed by the MEB threshold. If households near or surpass the MEB threshold, then an Anker Methodology living income target or other higher target should be used. The next section discusses the similarities and differences between an MEB and an Anker Methodology benchmark.

B. Comparison between MEB and the Anker Methodology Living Income Benchmark

Is the MEB and the Anker's Living Income benchmark the same?

Both estimate the cost of a basic but decent lifestyle

Both use local food prices and reflect local food preferences

	How is the MEB and the Anker's Liv	ving Income benchmark different?
	Living Income benchmark (the Anker method)	МЕВ
Food	Model diet uses WHO recommendations for calories, protiens, fats, carbohydrates, fruits and vegetables. Process for creating the model diet is iterative, starting with available model diets (from nutritionist, poverty line, or houshold survey) and then adjusting to local preferences, WHO nutritional recommendations, and low cost options to meet those recommendations. Prices are from local markets.	The MEB food basket is based on Sphere, WFP, FAO and WHO guidelines on the proportion of fat, protein and staple carbohydrates in the diet. 10 food items in total are in the MEB basket. The specific items reflect the staple foods in the region and are based on actual consumption and purchase patterns from the HEA baseline. Food prices are based on primary data collection from 1-2 local markets.
Housing	Based on principles of housing standards from international conventions, international standards (e.g., UN HABITAT) and standard setting organizations. Considers also normative standards as set by local goverment and housing conditions in a location. Prices are determined using local rental rates for housing that meets the quality standards and adequate size for the reference family.	The shelter basket includes the basic cost for post-storm repairs as well as the cost of items to keep a home clean (broom, garbage bin with lid, mop and bucket etc). Other household items include basic items for lighting, cooking, eating and drinking, sleeping, and, where needed, for heating.
Other	Non-food and non-housing (NFNH) cost calcuations are done initially by using recent household expenditure surveys, multiplying the NFNH to Food Expenditure ratio by the cost of the living wage model diet. Post checks are done through primary data collection in the study location.	The HEA MEB uses Sphere standards to inform what items are selected for each sector basket and in what quantity. Calculating the cost of water for drinking and domestic use is a core task. Costs for school, health care, clothes, personal hygiene, transport, mobile air time, tax, and community contributions reflect local market prices and are collected directly by HEA field teams. Livelihood inputs are also currently added to the MEB.
Contingencies	5% for unexpected events and sustainability (does include agriculture specific hazards)	A small amount for contingencies was added to recently completed HEA MEBs.
Unit of analysis	Typical size family, determined through a multi-step process	The MEB is calculated on the basis of the average household size for poor households in a specified zone.

When households fall below the **MEB**, income support to reduce poverty and to help households reach decent living standards is the central priority. Living income benchmarks that use the Anker methodology¹⁶ serve a similar purpose to the MEB threshold in this regard. Both approaches attempt to reflect the cost required to meet a basic but decent standard of living. However, the two thresholds differ with respect to the international and national norms that they reference and the manner in which data is collected. The composition of items in the HEA MEB by and large reflects Sphere¹⁷ humanitarian standards. Because of the international standards used for the MEB, the food basket is likely to be less micronutrient rich (about 1% is derived from fruits and vegetables) and less expensive than the model diet in the Anker methodology¹⁸. Moreover, the MEB is calculated using primary data from local markets and therefore each MEB calculation is specific to the livelihood zone¹⁹. Price data is typically collected in conjunction with HEA baseline field work (also for the sake of efficiency) and sector basket costs are compared to actual household expenditures as a practical cross-check to aid in determining that the results make sense. Items of local significance (such as zakat payments and purchase of a sheep for Eidal-Adha in Muslim areas) are also typically included. Finally, validation by local stakeholders, such as a local Cash Transfer Working Group, is important²⁰. Living income benchmarks, calculated using the Anker methodology, rely on a combination of field data from markets in the covered districts along with analysis of national household survey data. Notwithstanding some differences in how the threshold is calculated, the Anker Living Income benchmark serves a similar purpose as the MEB and both are based on aspirational targets (i.e., what it costs to afford a decent and therefore desired standard of living). To this end, the two thresholds (Living Income benchmark and MEB) can be used in combination as two different rungs on the income ladder.

C. Estimating Income Gaps Using HEA Household Income Analysis with Anker Methodology Living Income Benchmarks

HEA baseline income data is optimal for measuring against MEB and living income benchmarks that utilize the Anker methodology, for several reasons. First, HEA data allows users to estimate and express income gaps in various ways. First, total net annual household income, collected through an HEA study, can be compared to living income thresholds to estimate annual income gaps. If using an Anker Methodology living income benchmark, which estimates costs of living based on family size, the benchmark will first need to be adjusted to reflect the average household size determined during the HEA study. It is important to keep in mind that each wealth group identified during the HEA study can have a different average

¹⁶ Anker, R., & Anker, M. (2017). *Living Wages Around the World: Manual for Measurement*. Northampton, MA: Edward Elgar.

¹⁷ https://spherestandards.org/

¹⁸ The MEB threshold has been around for two years as of 2019, and while it has been used in several places for programming by Save the Children and donors, modifications are still occurring. Save the Children has another tool, called Cost of the Diet which, since 2007, has been used for detailed calculation of the cost of a nutritious deit: heacod.org.

¹⁹ Livelihood zones are the geographic area that is used for collection and analysis of HEA data. MEB is calculated by livelihood zone so that it can be compared to HEA baseline data. Livelihood zones are an important unit of analysis because they represent areas with similar agro-ecology, hazards, infrastructure, market access, where households earn their livelihoods in similar ways.

²⁰ For more information on MEB, go to heacod.org

household size and composition. Therefore, benchmarks may need to be adjusted for each wealth group gap analysis.

Second, gaps can be calculated by target commodity. In other words, we can use HEA baseline income data and data on household labour inputs to calculate whether or not a households' return on their own labour investment for a given commodity is equivalent to a living income for that commodity. We can answer the question, "Is the net income earned from cocoa (or other commodity) proportionately contributing to living income?" HEA data can also show the relative contribution to living income of every other income earning activity, including food production and collection for household consumption. However, it is important to note that, in most cases, this second question can only be answered with new HEA studies or studies that have previously been designed to answer similar commodity-specific questions. Most HEA studies that have been done in the past looked at agricultural inputs and costs together, rather than disaggregating these costs by crop or commodity. As with the first question, living income benchmarks would need to be adjusted to reflect the household sizes determined during the HEA studies.

The detailed breakdown in HEA analysis of food consumed that is produced, gathered, received in-kind or purchased (cash, in-kind and food) also allows users to compare current diets with the nutritious diets of the food baskets used in living wage benchmark calculations, which is useful for nutrition programmes that might go alongside other living income interventions. Likewise, current costs of other basic needs can be compared to estimated costs for housing and non-food/non-housing items in a living income basket of goods.

Finally, HEA income and cost data can be updated as prices change and production scenarios shift, providing data that is typically valid for more than five years. These updated data sets can also be easily compared to benchmarks as they too may be updated annually for inflation and other factors.

IV. Identifying Actions to Improve Incomes with Scenario Modelling

Questions answered in this section:

- How does HEA help us understand how our actions affect farmers?
- How does HEA help practitioners build income toward aspirational living income goals and close the income gap?

A farm economic model allows us to analyse the impact of a range of intervention options to test for unintended or harmful consequences prior to implementation. The HEA toolbox provides an effective means to understand how our actions may affect farmers by combining core HEA data, the modelling tool itself and new research into probable costs and benefits of any new intervention.

To carry out scenario modelling of potential market interventions, there are 4 essential steps. Step 1 is the baseline which sets out the livelihood context (i.e., what households earn, produce and spend). Step 2 is creating a business plan that breaks down the likely costs of the intervention (both capital and recurrent) and the likely net profit. Step 3 is running a bad year scenario for each intervention option and comparing the result (gross and net household income) to the living income benchmark. The bad year scenario is necessary because many regions face periodic but frequent hazards (drought, flood and so on). The critical question in running a bad year scenario is whether households can cover their production costs when overall production is poor. If they cannot cover the cost, is the unintended effect of a new intervention simply more debt? Finally, step 4 involves comparing the bad year income contribution of each option to bad year net income without any intervention. A positive result is one that raises income in both good years and bad, and thus helps households to be more economically secure and economically resilient (they can afford a decent standard of living and they can recover faster from a bad year). Indeed, the best choice is one that in a bad year generates a net household income above the livelihood protection threshold (LPT) and close to the living income benchmark.



A. Key questions answered by modelling outcomes

- 1. What is the proportional importance of a selected commodity in the household economy? Can improvements in one commodity be leveraged to bring households out of poverty?
- 2. If workers are paid a living wage, what effect will this have on total input costs and net income? How do these new costs compare proportionately with household income? Is there potential to lower other input costs, and if so, what effect would this have on total net income?
- 3. Will predicted income gains from various intervention options be sufficient to cover the production costs even in a bad year?
- 4. What is the opportunity cost of a new intervention and how will this affect total household income?
- 5. If planners are considering a menu of different market-based interventions, which option is predicted to have the best return in the long-term (i.e., over the next 5 years)?
- 6. If a specific intervention option is implemented, which wealth groups will likely meet living income benchmarks and which wealth groups will still face income gaps? How large will the income gap be?

V. Advantages, Opportunities and Costs of Existing and New HEA

A. When does it makes sense to use existing HEA data, and when is a new study needed?

HEA studies can answer the critical questions raised by living income research. This capacity – to provide answers to questions decision-makers have – is the crucial advantage provided by using HEA baselines for further research. New HEA baselines have the advantage of being commissioned for the specific region where, and purpose for which, an intervention is planned and will be the most up to date. Existing HEA baselines offer an excellent resource to draw from without paying the cost of implementing a new one. However, the region covered in the existing baseline may not align exactly with the targeted area. Additionally, existing HEA baselines may not disaggregate livelihood input costs and labour inputs to the level desired for full analysis of living income gaps and return on labour investment for specific commodities. These design elements are however easily prioritized in new HEA baseline studies.

Two important factors come into play when deciding whether to use existing HEA data sets or conduct new HEA studies for living income gap analysis and programming – intent and cost. The following table outlines situations that are appropriate for using existing HEA data versus those that require new HEA studies, along with illustrative costs. A more detailed table outlining the level of effort and cost breakdown for different types of HEA assessments follow the table of summary questions.

Key questions that HEA can answer	HEA product	Sample Cost by LZ			
Existing HEA studies		USD 11,000 – USD 12,500			
The user is in the exploratory phase, and just r	needs to get a sense of	what livelihoods and total			
household income levels look like in a given area a	and for different wealth g	roups.			
The user just wants to compare total (i.e., actual)	annual household incom	es to existing living income			
benchmarks.					
The user can work with total net household incor	me data plus commodity-	specific gross income data,			
but does not need net commodity-specific income	e data.				
New HEA studies		USD 23,500 – USD 32,000*			
In addition to measuring total (i.e., actual) annua	al household incomes ag	ainst existing living income			
benchmarks, the user also wants to calculate net i	ncome and return on labo	our investment for a specific			
commodity (or other individual livelihood activitie	es).				
The user wants to understand income not only as	an annual picture, but als	o the distribution of income			
across a year, including lean periods and periods of	of higher return.				
The user wants to know how much change in land	d area, price, productivity	, input costs, etc. is needed			
to get average farmer incomes up to the benchmark? Can building assets also be examined in the					
model?					
The user wants to know what impact other interve	entions could have on hou	usehold incomes, be it asset			
building, diversification, risk sharing/management mechanisms, etc.?					
The user wants to understand opportunity costs associate with intervention options?					
The user wants to understand the impact of externalities on household incomes over time, and the					
potential impact of externalities on intervention r	esults.				

* These costs are illustrative and only represent direct consultant costs. Not included are the costs to hire and field local data collectors, domestic travel or workshop costs.

Annex 1: Level of Effort (or person days required) and Illustrative Budgets

Level of Effort Required for HEA Activities

Standard HEA baseline	Comments	LOE per	Total
		person	LOE
1 x Livelihood Zone			
International Consultant – Level of Effort (LOE)			
- HEA baseline training - FEG	Includes assignment setup, training prep,	11	
	international travel days, travel to field		
	site and actual training of 6 days.		
 Field work & data entry – FEG 	Assumes 8-10 villages covered in the	15	
	baseline assessment		
 Analysis and reporting - FEG 	Assumes that the outputs include a	8	
	standard livelihood zone profile and ppt		
	presentation of the results		
- Outcome analysis spreadsheets - FEG	OA spreadsheet is called the LIAS. The	1	
	second UA tool is called the Dashboard		
-	TOTAL (International TA)		35
National (in-country) LOE			
- 1 field team (4 x team members	In-country field team costs are budgeted	26	
minimum; 1 x team leader; 1 x driver; 1	in local currency.		
x admin/logistics coordinator;			
translators as needed)	Costs include per diem during the		
	training, field work and analysis; fuel		
	costs; salary top-ups; shacks for village		
	TOTAL (National LOE per team)	X 7	107
MED add an			Total
	Comments	LUE per	
1 v Livelihaad Zana		person	LUE
International Consultant - LOE			
 Adapt BSS and field forms for MEB 	Add the MEB data storage and	1	
	calculation sneets to the BSS and adapt		
MED analysis and calculation	NEB forms for the inventional zone	2	
	the draft MER (food and non-food)	2	
- Support MER validation process	Support client to run the validation	1	
Support WEB valuation process	process with stakeholders	1	
- Setup OA MEB spreadsheets	Setun MEB LIAS	1	
- Report	Synthesise the results in a report	2	
	TOTAL (International TA)		7
National (in-country) LOE			-
- Training on MEB data collection forms	This training is an add-on to the standard	0.25	
	HEA baseline training		

- Data collection	LOE depends on number of markets	2	
	visited to collect reference year market		
	price data. Assume 2 x markets		
- Data entry	Price data is entered into the standard	0.5	
	HEA baseline storage spreadsheet (BSS)		
 Validation process 	LOE depends on the number of	1	
	stakeholder meetings required to		
	validate the MEB calculation		
	TOTAL (National LOE per team)	3.75 X 7	26.25
HEA Scenario Modelling / Outcome Analysis	Comments	LOE per	Total
/ Poverty Analysis		person	LOE
1 x Livelihood Zone			
International Consultant - LOE			
 Outcome analysis training 	Includes assignment setup, training prep,	7	
	international travel days and actual		
	training of 3 days. Note that the 5-day		
	training is also offered to HEA		
	practitioners.		
 Scenario modelling and reporting 	Includes either predictive modelling of a	5	
	hazard or modelling actual intervention		
	options. All OA modelling requires price		
	and production projections as well as any		
	new input expenditures		
	TOTAL (International TA)		12
National (in-country) LOE			
 OA training (participants) 	In-country participant costs are budgeted	3	
	in local currency.		
	LOE indicated at right is for a 3-day		
	training. Assumes no local travel to the		
	training site.		
- Collect current year monitoring data	Costs include per diem during training	12	
and/or collect the "business plan" data	and field work; fuel costs; salary top-ups;		
for intervention options	snacks for village participants; and		
	Field time varies depending on number		
	of field sites selected and how much		
	monitoring data is available from reliable		
	secondary sources.		
	TOTAL (National LOE per team)	15 X 5	75

HEA Baseline Assessments – Illustrative Budgets

Option 1 – Senior FEG Consultant

DRAFT BUDGET FOR HEA IN ONE LIVELIHOOD ZONE (and no OA training)					
		Number of people	Number of units	Cost per unit in USD	Total cost in USD
CONSUL	TANT FEES				
	HEA baseline consultant and team leader	1	35	\$825.00	\$28,875.00
INTERNA	ATIONAL TRAVEL				
	International flight for consultant	1	1	\$2,200.00	\$2,200.00
	International airport transfers	1	4	\$75.00	\$300.00
	Visa	1	1	\$100.00	\$100.00
PER DIE	M				
	Consultant nights in country	1	28	\$40.00	\$1,120.00
	Communication	1	28	\$2.00	\$56.00
TOTAL					\$32,651.00
Not inclu	ded:				
	national travel to field location				
	team member costs				
	workshop costs				
	fieldwork travel costs				
	field material costs				
	wiithholding tax				

Option 2 – Mid-level FEG Consultant

DRAFT E	BUDGET FOR HEA IN ONE LIVELIHOOD ZO	ONE (and no OA training)		
		Number of people	Number of units	Cost per unit in USD	Total cost in USD
CONSUL	TANT FEES				
	HEA baseline consultant and team leader	1	35	\$555.00	\$19,425.00
INTERNA	ATIONAL TRAVEL				
	International flight for consultant	1	1	\$2,200.00	\$2,200.00
	International airport transfers	1	4	\$75.00	\$300.00
	Visa	1	1	\$100.00	\$100.00
PER DIE	M				
	Consultant nights in country	1	28	\$40.00	\$1,120.00
	Communication	1	28	\$2.00	\$56.00
TOTAL					\$23,201.00
Not inclu	ded:				
	national travel to field location				
	team member costs				
	workshop costs				
	fieldwork travel costs				
	field material costs				
	wiithholding tax				

Outcome Analysis Training and Scenario Modelling – Illustrative Budgets

Option 1 – Senior FEG Consultant

DRAFT BUDGET FOR OA CAPACITY BUILDING				
	Number of people	Number of units	Cost per unit in USD	Total cost in USD
CONSULTANT FEES				
HEA outcome analysis consultant	1	12	825	\$9,900.00
INTERNATIONAL TRAVEL				
International flight for OA training	1	1	2200	\$2,200.00
International airport transfers	1	2	75	\$150.00
Visa	1	1	100	\$100.00
PER DIEM				
Consultant nights in-country	1	7	150	\$1,050.00
Communication	1	7	2	\$14.00
TOTAL				\$12,350.00
Not included:				
participant per diems				
workshop costs for refresher training				
in-country withholding tax (if relevant)				
accommodation and per diem (for meals, incident	tal costs)			

Option 2 – Mid-level FEG Consultant

DRAFT BUDGET FOR OA CAPACITY BUILDING				
	Number of people	Number of units	Cost per unit in USD	Total cost in USD
CONSULTANT FEES				
HEA outcome analysis consultant	1	12	690	\$8,280.00
INTERNATIONAL TRAVEL				
International flight for OA training	1	1	2200	\$2,200.00
International airport transfers	1	2	75	\$150.00
Visa	1	1	100	\$100.00
PER DIEM				
Consultant nights in-country	1	7	150	\$1,050.00
Communication	1	7	2	\$14.00
TOTAL				\$10,730.00
Not included:				
participant per diems				
workshop costs for refresher training				
in-country withholding tax (if relevant)				
accommodation and per diem (for meals, incide	ntal costs)			

Annex 2: Additional HEA Reasources

Key Links to HEA Resources heacod.org foodeconomy.com

Additional HEA baseline resources and tools

HEA Baseline Resources	Link	Where found
Animation video – What is HEA?	foodeconomy.com	What we do / HEA HEA Animation
Global Dashboard (library of all HEA baselines)		In progress
Livelihoods at the Limit: The Story of HEA	heacod.org	Resources / History of HEA
Livelihoods at the Limit: Food security in a changing world – evidence from the consolidated HEA database (2013)		Poverty Analysis
The Practitioner's Guide to HEA		Guidance
HEA: A Guide to Programmemers and Policymakers		Guidance
An Atlas of Ethiopian Livelihoods (2013)		Livelihood Profiles
An Atlas of HEA Information across the Sahel (updated 2017)		Livelihood Profiles
FEWS NET Livelihood products		Livelihood Profiles
All HEA products		All HEA & CotD Reports
HEA Sahel Profile Reports		Livelihood Profiles

Additional resources and tools on HEA thresholds

Resources on Thresholds	Link	Where found
HEA Analytical Framework	heacod.org	Resources/
The Practitioner's Guide to HEA		Guidance
Minimum Expenditure Baskets	heacod.org	Resources/
Operational Guidance for calculating a sector MEB		Guidance
Sector Minimum Expenditure Baskets – HEA Resilience Study		Resilience

Additional resources and tools on HEA and Resilience

Resources on Resilience	Link	Where found
Introduction to Resilience Analysis	foodeconomy.com	What We Do/
Using HEA to Measure Resilience (video)		Applications of HEA/
Webinar: Economics of Resilience (video)		Resilience
FEG 2-pagers	heacod.org	Resources/
Identifying which interventions support resilience		Resilience
Minimum Expenditure Baskets	heacod.org	Resources/
Sector Minimum Expenditure Baskets – HEA Resilience		Resilience
Study		

Additional resources and tools on HEA scenario modelling

Resources on Scenario Modelling	Link	Where found
Introduction to HEA and HEA modelling	foodeconomy.com	What we do
HEA: A Guide to Programmemers and Policymakers		HEA / Scenario Analysis
FEG 2-pagers	heacod.org	Resources /
Identifying which interventions support resilience		Resilience
Using Scenario Modelling to assess potential impact of	heacod.org	Resources /
IGAs on household income		
Graduation Pilot – Market Assessment and IGA		Poverty Analysis
Modeling, FSD Review, May 2017		

Annex 3: Existing HEA baselines up to year 2018

THE FOOD ECONOMY GROUP	ŀ	IE	A Bas	eli	ne Da	tal	base			
	National Cove	erage	e Sub-national Coverage		Sub-national Coverage		Sub-national Coverage		Sub-national Coverage	
	Angola	13	Botswana	5	Ivory Coast	5	Mauritania	7	Senegal	6
	Burkina Faso	9	Cameroon	1	Kenya	18	Mozambique	25	South	6
Africa	Ethiopia	173	Chad	13	Liberia	2	Namibia	9	Tanzania	13
	Lesotho	5	DRC	3	Madagascar	1	Niger	17	Haanda	40
	Malawi	18	Djibouti	6	Mali	13	Rwanda	5	7 ambia	1
	Swaziland	7							Zambia	-
Asia	Sub-nation Coverage Bangladesh Cambodia Indonesia Myanmar	al 7 1 2 6	Sub-natio Coverage Pakistan Palestine Philippines Yemen	nal ge 6 4 1 2						
South	Sub-nation Coverage Columbia Guatemala Haiti Nicaragua	al 3 2 9 1								