Save the Children

HOUSEHOLD ECONOMY ANALYSIS (HEA)

Guidance

A practical guide on collecting key parameter data for carrying out HEA Outcome Analyses

HEASAHEL household economy approach analyse de l'économie des ménages

Save the Children

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I - INTRODUCTION

Save the Children and its partners have been implementing a regional HEA Sahel project since 2010, originally funded by ECHO and co-funded since 2013 by ECHO and OFDA. This project aims to improve the Early Warning and Response Systems (EWS) in the Sahel, through better understanding of the economic determinants of household food insecurity, in the holistic fight against malnutrition in the Sahel. The project was implemented in seven successive phases, which gradually contributed to the institutionalisation of the HEA approach in the Sahel and West Africa. The project also brought about a gradual increase in the level of technical capacity for carrying out HEA analyses as well as for using HEA tools in vulnerability assessments and early warning systems at the regional level.
In addition, the project contributes to informing the "*Cadre Harmonisé*" (the West African equivalent of the Integrated Phase Classification framework) analysis, by providing timely HEA results in all the countries covered by the project. The main analysis products generated by the HEA Sahel regional project are household baseline situation reports (Baseline HEA) and seasonal results analyses (Outcome Analyses, OA). In general, these products are much appreciated and provide substantial added value to the information available on community food security, livelihoods and nutrition. The HEA analyses also help to inform, among other things, the country response plans and the targeting of beneficiaries for intervention needs.

The results of the seasonal HEA analyses are key pieces of information used by the EWS at national and regional levels to predict, for a given consumption year, the level of access to food for different wealth groups and livelihood zones.

However, despite the importance of these seasonal analyses, it emerged from discussions with the technical implementing partners, that the major challenge remains the collection of data in the field to obtain good quality information in order to achieve a better analysis that best reflects the food situation and the evolution of people's livelihoods.

In order to meet this challenge, the HEA Sahel regional project, in accordance with its quality assurance mandate for HEA analyses, is resolutely committed to the development of a Practical Guide for Quality Analyses, based on the practical experience of its partners in the field in two important domains: collecting data on the key parameters within communities and outcome analyses. This document, without being exhaustive, presents the procedure to follow to collect data in accordance with the HEA analysis approach. This document should be used as a reference tool for collecting data on key parameters and following the outcome analysis process in all countries of the Sahel and West Africa where seasonal HEA analyses will be conducted.

II - REMINDER OF THE HOUSEHOLD ECONOMY ANALYSIS APPROACH

2.1 - The HEA Analytical Framework

Household Economy Analysis (HEA) is an analytical framework that has many advantages and makes it possible to generate quality information. This approach was developed based on the principle that information on events that affect a geographic area or community can only be well understood and interpreted by taking into consideration the lifestyle of the population living there. The analytical framework calls on various sources of information, including census results and data on crops and livestock etc. It is a powerful way to use information from both primary and secondary sources to understand the livelihoods of a community.

This guide is intended for HEA practitioners with a good level of analysis and who are involved in collecting key parameters within communities. It also targets the government data departments involved in HEA seasonal analyses so that they can familiarise themselves with the basic steps and calculations required to conduct a good quality OA. This guide is divided into four main sections: I) Introduction, II) Reminder of the Analysis Framework, III) Process for Collecting Data on the Key Parameters and IV) the Analysis Phase.

HEA provides information on a reference year, which describes (i) the economy of households in a "typical" situation, (ii) the strategies put in place by these households to access food and income, and (iii) the relationships between households in the community and the interactions with the national and / or regional economy.

Firstly, using this baseline information, it is possible to predict or model what the possible impacts of a shock will be on the livelihoods of these households. Secondly, the analytical framework considers households' ability to adapt to changes in their economic environment. Finally, the result is a clear indication of households' capacity to meet their food and non-food needs without external assistance during the coming year, called the consumption year.

2.2 - Outcome Analysis

Outcome Analysis (OA) is a participatory and inclusive analytical process through which information about a shock (e.g. an event such as a drought, conflict, or market upheaval), combined with data on a community's baseline situation, make it possible to predict change, in particular in terms of households' access to income, food and basic social services for the current year. This analysis is done by monitoring the factors that determine households' food security and livelihood security for the livelihood zone (LZ)[1] being analysed.

2.3 - HEA Key Parameters

A key parameter is a source of income or food that can significantly influence households' access to income or food. In the Sahel and West Africa, a source of income or food is considered a key parameter when this source contributes at least 10% of the total income in food and cash of a wealth group or at least 5% of the total food and cash income of two wealth groups within a community in a livelihood zone. The key parameters are identified during the development of the HEA baseline. In conducting seasonal analyses there are two types of key parameters, differentiated by their likely sources: the key parameters tracked through secondary data and the key parameters that require primary data collection.

2.3.1 - Key parameters informed by secondary data

Data on crops, the prices of staples, livestock prices, herd sizes and the rate of inflation is often available from government departments. As regards this category of information, a consensus was reached during the regional HEA workshop and a session specifically devoted to harmonising approaches to using this data. In the event that some of this data is not collected or does not meet the quality criteria required[2] for outcome analysis, it is strongly recommended that partners assist these departments in improving the quality of their data collection in these fields.

However, if this data is not collected by the government departments at all, it may be collected in the field. If these parameters are monitored but, for reasons of seasonality, are not available during the period of the seasonal analyses, practitioners are invited to estimate the degree of variation in comparison with the level in their reference year, based on consensus among analysts.

2.3.2 - Key parameters requiring primary data collection

The key parameters requiring primary data collection are all the key parameters which are not monitored by official statistics services. This data must be collected within the communities to assess their level in the reference year and in the current year. This data mainly covers those sources of food and income other than from crops and livestock, such as rates of remuneration, income from migration, etc. It should be noted that in the event of a major shock that affects, for example, livestock, it is possible to collect data on agricultural matters, although these are normally

[1]A livelihood zone is defined, primarily, as a geographic area in which the majority of households obtain their food and income through a combination of roughly similar means.
[2]The method for collecting data should meet appropriate standards, such as those outlined in the IPC. Consult Save the Children's HEA Technical Hub or HEA Sahel project team for further details.

monitored by government services, because in such circumstances these departments often lack the means to go into the field and then generally base their figures on estimates.

III - PROCESS FOR COLLECTING DATA ON KEY PARAMETERS

3.1 - Data inventories

The phase consisting in an inventory of key parameters is a crucial step in conducting a seasonal HEA analysis meeting quality standards. This involves taking stock of all the key parameters necessary for conducting a seasonal analysis for each of the livelihood zones being analysed. At this stage, the national HEA working group needs to identify the secondary and primary source key parameters for each livelihood zone. For all the key parameters from secondary sources, it is during this data inventory step that those responsible for the analysis must check whether the necessary data is indeed correctly monitored by the relevant government departments and accessible for the purposes of the analysis.

To this end, a tool has been designed to make it possible to list all the key parameters for all the profiles drawn up in the various livelihood zones. See the example from Mali below.

	ML05		ML13		ML14	
	Quantity	Price	Quantity	Price	Quantity	Price
Millet	Yes		YES		YES	
Sorghum			YES		YES	
Maize						
Rice					YES	YES
Cowpea					YES	YES
Peanuts			YES	YES		
Sweet potato					YES	YES
Shallot	YES	YES				
Market gardening					YES	YES
Gifts	YES					
Milk sales					YES	YES
Finished store cattle			YES	YES	YES	YES
Cattle sales	YES	YES	YES	YES	YES	YES
Goat sales	YES	YES	YES	YES	YES	YES
Sheep sales	YES	YES	YES	YES	YES	YES
Agricultural labour	YES	YES	YES	YES	YES	YES
Construction	YES	YES	YES	YES	YES	YES
Migration labour	YES	YES	YES	YES	YES	YES
Remittances/transfers	YES	YES	YES	YES	YES	YES
Petty trade	YES	YES	YES	YES	YES	YES

For better data collection, it is necessary to understand the seasonality of each of these key parameters (KP). For each KP, indicate the period of the activity (months and year) for which you will collect data for both prices and quantities. Include the reference year and current year. See the table below.

KP seasonality table

	Livelihoods Zone											
Consumption year (months)												
Reference year												
Current year												
1st season/harvest												
2nd season/harvest												
Milk sales												
Livestock sales												
Agricultural labour												
Migration labour												
Purchase of staples												

3.2 - Updating the collection sheet

Before collecting data in the field, the country's HEA working group, in accordance with its terms of reference, is responsible for developing a standardised collection sheet for each livelihood zone. The sheet should include all the key parameters of the livelihood zone as indicated in the LIAS[3] and the Summary Sheet of the Baseline Spreadsheet. Note that if an HEA baseline profile covers several counties / districts, each county / district covered by the profile must have its own sheet and the collection must be done by county / district. The sheet should be considered as an interview guide and not a questionnaire. Any explanation which contributes to describing the context of the change must be mentioned on the sheet.

3.3 -Training the data collection agents

3.3.1 - Training supervisors at central (national) level

Once the HEA country working group has updated the data collection sheet, we highly recommend organising training for the supervisors who will oversee data collection in the field. This one-day training session will give supervisors the opportunity to develop a common understanding of the data to be collected, the collection technique, the comparison period, etc. The precise responsibilities of the supervisors are left to the discretion of the HEA working group, depending on specific context of their country. However, the supervisors must play the role of trainer to the data collectors, supervise the data collection, cross-check the data, check the collectors' sheets, consolidate the data collected, and organise a verification meeting with the technical services in the livelihood zone, etc.

3.3.2 - Training the data collectors

In order to ensure that the intervention will be sustainable in the long term and taken up by the relevant local authorities, it is best that the field data be collected by technical services (agriculture, livestock, community development etc.) working in the livelihood zone being analysed. Before heading into the field, it is essential to organise a training or recall session on the collection sheet for the data collectors. The one-day training session on the key parameters and data collection techniques will give the collectors an opportunity to master the tools and better understand the techniques for collecting and cross-checking data.

3.4 - Methodology / Sampling

3.4.1 - Methodologies

The collection of key parameter data is carried out via focus group discussions with a limited number of people (roughly 3 - 4 men and 3 - 4 women) representing households from the different socio-economic categories present

[3] Livelihoods Impact Analysis Spreadsheet

within the village. In order to respect the philosophy of an HEA outcome analysis, it is important to conduct interviews with representatives who understand the situation of poor households in the village and to collect data which reflects the situation for each group, in order to take their specificities fully into account.

As a reminder, the goal in collecting data on the key parameters is to be able to make an objective appreciation of the evolution of the different sources of food and income between the reference year and the current year. It is therefore essential that the data for the reference year and the current year comes from the same source, according to the same seasonality.

HEA analysts often tend to keep the baseline data in the data collection sheet for collecting key parameters and ask the population about the evolution of these parameters in current year. This approach should be avoided because it could lead to inconsistency in the data collected. It is difficult to make objective and realistic comparisons over time using data drawn from different sources. Thus, in order to have data from the same source and to put the surveyed community in a position to reply consistently, we strongly recommend asking questions of the same group to assess the levels of income and food for both the reference year and the current year.

For the key parameters appertaining to "other sources of income and food", we must take into account not only the price but also the quantity: for example, as regards the annual exodus, we will need to know its contribution in terms of cash or food for the reference year and the current year. We will also need to know the level of access, i.e. the number of people leaving, the opportunities for accessing employment and the length of stay in the host areas.

3.4.2 - Sampling

The sampling for collecting data on key parameters within the community follows the same logic as that of the baseline study (Baseline HEA), in that it must be representative of the different livelihood zones and wealth groups. The data on key parameters is collected on the basis of a sample of 4 to 6 villages identified as typical[4] of the livelihood zone. There is no requirement to select the villages which were questioned during the baseline study. The most important thing is to visit villages which are typical of the livelihood zone. It is possible to include some of the villages that were involved in the baseline study. However, if possible, it is best to collect data on the key parameters in accordance with the administrative divisions used in the LIAS (county, willaya, district, etc.).

3.5 - Data to collect

The remainder of this guide presents a detailed description of the various key parameters and the technique for collecting information within communities in the livelihood zone being analysed. The document describes all types of key parameters while specifying the key parameters from primary sources (i.e. those which should be the subject of data collection in the field). However, if data on the key parameters from secondary sources is not available for lack of monitoring by the official services, these key parameters can be integrated into the data collection sheet in the same way as for other sources of food or income. For the sake of completeness, this guide will present in detail the collection of data on all the key parameters.

3.5.1 - Crops

Information on crops is official data provided in the agricultural statistics for the various administrative units (counties, provinces, etc.) covered by the profile within the livelihood zone. In this case, practitioners will need to list the information available for the reference year and the current year. For the duration of the validity[5] of the Baseline profile, the data for crops in the reference year does not change from one analysis to another. However, it is

[4]Representative village with the same opportunities for access to sources of food and income as in the livelihood zone as a whole.
[5]Except for significant changes to the livelihoods in the zone, the Baseline profile information will be valid for approximately five to ten years.

necessary to check this data to ensure its conformity with the official statistics. Table 1 shows an example of completed data collection sheet.

Table 1: Crops

Crop type	Yield (in tonnes)		Problem specification PS (%)	Explanation	Data Source
	Reference year	Current year			
Millet	5 000	3 500	70%	Drought	Official
Bananas					
Etc.					

If information on crops is not monitored by official services, it is possible to collect the necessary data on this subject within the communities. However, the HEA working group must agree whether it is necessary to collect data at the village level or whether to make use of the agricultural services to assess the rate of change compared to the reference year on the basis of their data resulting from periodic monitoring.

Should it be necessary to collect data on crops within the communities, take the Poor Household Group as a reference point and ask the focus group to assess the change, taking as an example a typical poor household which in the reference year produced 10 baskets (or any other unit of measurement of crops commonly used in the livelihood zone). In other words, ask the following question: "For a poor household that produced 10 baskets (depending on the type of crop) in the reference year (specify the year), how many baskets did it produce in the current year?" The problem specification is determined by calculating the data for the current year as a percentage of the data for the reference year. NB: The 10 baskets mentioned above are an example to illustrate our approach. The data collector can allow the key informants to say how many baskets typical households produced or received during the reference year and the current year.

3.5.2 - Livestock production

In Household Economy Analysis, several types of information on livestock production are used to conduct seasonal analyses. This information is presented as follows:

3.5.2.1 - Herd size at the start of the consumption year

Herd size is monitored by official statistics services in several countries of the sub-region. The aim here is to list the data available for each type of livestock present in the zone covered by the HEA profiles for the reference year and the current year. In the same manner as for crops, the baseline data is conserved for the duration of the profile's validity. An HEA analysis assumes that any change in herd size at the level of the administrative division (e.g. wilaya, county etc.) reflects the rate of change in herd size at the household level. Table 2 shows an example of completed data collection sheet. In general, official livestock data results from estimates based on the rate of change which is applied to livestock census data, itself dating back several years. It is important to include the livestock services of the livelihood zone in evaluating the rates of change.

Table 2: Herd size

Livestock type	Ref. year	Current year	PS (%)	Explanations	Data sources
Camelid					
Cattle	150,000	132,500	88%	Diseases	Community
Sheep					
Goats					
Pigs					
Etc.					

If information on herd size is not monitored by official services, it is possible to collect the necessary data on this subject within the communities. However, the HEA working group must agree whether it is necessary to collect data at the village level or whether to make use of livestock services to assess the rate of change compared to the reference year on the basis of their data resulting from periodic monitoring.

Should it be necessary to collect data within the communities, take the Middle household group as a reference point and ask the focus group to assess the change, taking as an example a typical household which had a herd of 10 animals in the reference year. In other words, ask the following question: "Imagine a typical, middle-income household that had a herd of 10 animals (choose the species which is most representative of the livelihood zone) at the start of the reference year (specify the year); how many animals would this household have had at the start of the current year?"

3.5.2.2 - Number of lactating females

Statistics on the number of lactating females[6] are not monitored by government data departments in most countries. This data must therefore be collected in the field. This will involve collating the information available for the reference year and the current year to assess the change in the number of lactating females in a herd. Table 3 shows an example of completed sheet.

Table 3: Number of lactating females

Livestock type			PS (%)	Explanations	Data sources
	Ref. year	Current year			
Camelid	3	3	100%		Community
Cattle					
Sheep					
Goats					

[6]Female of reproductive age and in a physiological state to produce milk during a period called lactation, the duration of which can vary from one zone to another and from one species to another.

In order to collect this data, take the Middle or Better-off households as a reference group and ask the focus group to assess the change by taking as an example a household which had 10 breeding females in its herd in the reference year. In practical terms, the agents should question the focus group to find out, for a typical middle-income household that had 10 breeding females in its herd (choose the species which is most representative of the livelihood zone - cows or camels) at the start of the reference year (specify the year), how many lactating females they would have had in their herd? The same approach should be used in reference to the current year to determine the number of lactating females in a herd of 10 breeding females.

3.5.2.3 - Milk production

For milk production, it is important to be able to determine the change between the reference year and the current year in the daily milk yield per lactating female in a livelihood zone being analysed. Table 4 shows an example of completed sheet.

Table 4: Milk production

Livestock type	1st season		PS (%)	2nd season		PS (%)	Explanations	Data sources
	Ref. year	Current year		Ref. year	Current year			
Camelid	1.5 L	1 L	66%	1L	1L	100%	Pasture	Household
Cattle								
Sheep								
Goat								

In practice, refer to the figures for the group of Middle households that have animals to assess the change in milk yield between the reference year and the current year. Data collectors should question the focus group to determine the number of litres of milk produced by a lactating female (for the species present in the zone - cows or camels) during the reference year (specify the year), over the different seasons of milk production. The same approach will need to be used for the current year to determine the quantity of milk produced per lactating female per day.

3.5.2.4 - Excessive loss of animals

Another aspect to consider when analysing the livestock situation is whether there are any factors emerging that could affect livestock and cause excessive (unusual) losses in the livelihood zone. Note that this information could be provided by the community during focus group discussions or result from data collectors' having noticed several dead animals in the field, for example. In the first place this information should simply be reported, for subsequent use during the analysis.

3.5.3 - Market prices

The market prices used for the seasonal analyses, provided by the existing monitoring systems, mainly concern the price of the staple cereal, the selling price of agricultural products and the prices of livestock and of the items which compose the livelihood protection basket.

3.5.3.1 - Price of staples

As regards the price of the staple cereal, in practice data collectors will need to ascertain the purchase price during the lean period of the reference year and the current year. In the Sahel and in arable areas, the lean period covers the months of June, July, and August. In pastoral areas, this period stretches from May to July. In countries with a price database, the exercise will consist in determining the average price for the staple cereal during the lean season of the reference year and projecting the average price of the same staple cereal for the lean season of the current year. It was decided during the regional HEA workshop held **in Dakar in December 2016**, to use **the price projection method developed by FEWS NET** and to make use **of the different countries' Agricultural Market Information Systems (AMIS)** to support price projections.

In countries where prices are not tracked, the approach will consist in collecting this information from traders or consumers in the area for the reference year and making the projection with the same traders or consumers for the

lean season of the current year. However, the problem specification can be revised during the results analysis workshop. Table 5 shows an example of completed sheet.

Table 5: Price of staples

Products	Reference year (lean season)		Current year (lean season)		PS (%)	Explanations	Data sources
	Quantity	*Price*	*Quantity*	*Price*			
Millet	1kg	200	1kg	250	125%		AMIS
Rice							
Bananas							
Etc.							

3.5.3.2 - Sale of agricultural products

As regards the selling prices of agricultural products, it is a question of collecting data on the prices to producers during the different seasons of sale of each agricultural product. As a rule, in the Sahel the sale of agricultural products takes place during and after the harvest, except in areas with irrigation systems where the sale of certain products can continue even in dry periods. In practice, the idea is to compare the average price in the reference year with the average price in the current year for the same period. If data from different seasons is not available, we recommended assessing the change with respect to the reference year.

As for the staple cereal, if prices are not tracked by the official data services, collectors will need to obtain this information from producers in the area for the reference year and the current year. However, the problem specification can be revised during the results analysis workshop.

Table 6: Sale of agricultural products

Products	Reference year		Current Year		PS (%)	Explanations	Data sources
	Quantity	*Price*	*Quantity*	*Price*			
Cowpea	1kg	175	1kg	200	114%		AMIS
Peanut							
Mango							

3.5.3.3 - Price of livestock and livestock products

Livestock prices are tracked by state structures in several countries. As for the prices of basic staples, this information does not generally need to be collected in the field. The exercise will consist in determining the average price for different animal species for the period of data availability in the current year. For example, when analysing the month of March, data from October to February is available from the country's Livestock Market Information System (LMIS). Depending on the period of availability of prices in the current year, agents should select the same period for the reference year so as to determine the average price of the different animal species in order to make a comparison (problem specification); example: when the analysis is done in October and the reference year begins in October, agents will need to compare the price of livestock in October of the reference year with the month of October of the current year.

In countries where these prices are not tracked, the approach consists in collecting this data from the communities of the zones analysed for the reference year and the current year, and requesting in particular the current prices of animals and the prices for the same species for the same period in the reference year.

If prices are tracked, when collecting data and calculating averages and comparisons, use data relating to the most commonly sold breed within each animal species. The same approach should be employed for the price of milk, by

considering the price of a litre, or otherwise the price of the unit most frequently used by the community for the purchase and sale of milk, in different seasons.

Table 7: Prices for livestock and livestock products

Livestock type	Ref. year	Current year	**PS (%)**	**Explanations**	**Data sources**
Cattle					
Sheep	30,000	25,000	83%	Border closure	Official
Goats					
Milk (L)	500	600	120%	Scarcity of milk	Community

3.5.3.4 - Items in the livelihood protection basket

Data on the items in the livelihood protection basket must be collected in the field wherever this data is not readily available. Depending on the nature of the item, the idea is to collect the price per unit for the reference year and the current year, taking into consideration the seasonality of the product or service. Taking the example of agricultural labour, it is clearly important to know whether, between the two periods, the wages of agricultural day labourers have changed.

Table 8: Price of the livelihood protection basket

Products	Reference year		Current Year		PS (%)	Explanation	Data Source
	Unit	*Price*	*Quantity*	*Price*			
Cattle input	1 kg	400	1 kg	500	125%	Scarcity of the product	Community
Labour							
Other inputs							
Etc.							

***Note**: In this case it is not a question of asking households the amount they spent on the purchase of the product or service but of knowing the change in the unit price of the product or service between the reference year and the current year.*

3.5.4 - Other sources of food and income

Certain sources of income and food are key parameters in terms of price and quantity. For example, in terms of quantity, for households in the lowest income group who produce mats, if a family made 10 mats in the reference year, how many mats can it produce in the current year? For the prices, it will be a question of knowing how much the mat cost in the reference year and the current price of the same type of mat. Note that the 10 mats are just an example to illustrate the process. In reality the data collector can allow the key informants to say how many or how much of a certain item typical households produced during the reference year and during the current year.

For a better data collection and a better analysis, it is important to have a good understanding of these income sources which are not generally tracked by the state statistics departments and which can vary from one zone to another.

A few details by type of source:

Exodus: To better appreciate the variation, collectors need to ask themselves certain questions, namely: What was the migrants' principal destination? What is the main activity carried out there? The duration of the exodus? Do they send money home? How much do they earn per day, week, or month? Ask the same questions for the reference year and the current year. Data collectors should not forget that the migrant labour opportunities are available in the host zone.

Self-employment: First, it is necessary to identify what is considered as self-employment in the area, i.e. which activities are included in self-employment? For this, data collectors will have to refer to the Baseline. If people in the livelihood zone undertake several types of activity to increase their income, see which one is the most important in terms of revenue generation. In the same way, try to understand the variation in this source of income by comparing the reference year and the current year, taking into account the daily or monthly income, the duration of the activity, the number of people involved in the activity as well as nature of the self-employment opportunity. You must also pay attention to the unit used because the comparison must be made with the same units; for example the price of a pile of bundles of firewood in the reference year compared to the price of the same type of pile of bundles in the current year.

Gathering: By referring to the Baseline, it is possible to know which products are picked and which in particular generates the most income, in order then to be able to appreciate the variation in terms of the quantity and price of this product. However, it is sometimes difficult to obtain this information clearly from the Baseline. In this case you will have to ask the community.

Petty trade: In some Sahelian countries, petty trade is an activity of better-off and middle-income households. If petty trade is carried out by Poor households, agents will also need to inquire into the type of trading. In terms of quantities, if the number of people taking part in the activity has increased, it must be asked who the buyers are.

Table 9: Other sources of food and income

Others sources of food/income	Reference year 3		Current Year		PS (%)	Explanation	Data Source
	Quantity	*Price*	*Quantity*	*Price*			
Exodus	2 people, 3 months	10,000 per month	3 people, 3 months	10,000 per month	150%		
Self-employment							
Construction							
Gathering							

The list is not exhaustive (there may be other sources such as credit, construction, etc.) but the reasoning and the approach are the same for a better appreciation of each activity.

3.5.5 - Analysis and checking

The person in charge of supervising data collection is also responsible for compiling data collected in the field, as well as its consultation and verification by the technical services operating at the level of the livelihood zone. This

will involve consolidating the data collected and highlighting the typical values for each key parameter analysed. For this exercise, there is no need to systematically calculate the average value for each indicator; it is rather a matter of agreeing on a typical value for each key parameter. For each key parameter, it is good to keep the explanations because as informative as the data itself is, the story behind each piece of data is also important for the quality of the analysis.

The results of the field consolidation will then be presented to HEA analysts at country level during the first days of the analysis workshop for in-depth analysis, before this data is integrated into the LIAS.

The data is consolidated using an Excel spreadsheet. See the table below:

			Quantity produced															
			Reference Year								**Current Year**							
	Month or Season	**Unit**	V1	V2	V3	V4	V5	V6	V7	V8	V1	V2	V3	V4	V5	V6	V7	V8
Crops																		
Sweet potato																		
Irish potato																		

			Reference Year								**Current Year**							
	Month or Season	**Unit**	V1	V2	V3	V4	V5	V6	V7	V8	V1	V2	V3	V4	V5	V6	V7	V8
Livestock production																		
Herd size																		
Camel																		
Cattle																		

			Reference Year								**Current Year**							
	Month or Season	**Unit**	V1	V2	V3	V4	V5	V6	V7	V8	V1	V2	V3	V4	V5	V6	V7	V8
Livestock production																		
Number of lactating females																		
Camel																		
Cattle																		

3.5.6 - Important note:

Information collected at the community level is often subject to interpretation and the exercise can raise expectations among villagers if the objectives are not clearly defined at the start of the survey. It is therefore essential to introduce the team well and to present the objectives of the data collection exercise clearly. Remind the villagers that there will be no distributions/interventions directly related to this work. Their village was chosen because it is representative of the livelihood zone being analysed. Explain to the focus group that for the duration of the interview, they are the representatives of a socio-economic group, so they must speak on behalf of all households, not just based on the situation of their own household. Explain the reference year and the current year.

IV- ANALYSIS PHASE

4.1 - Reminder of Outcome Analysis

Outcome analysis or scenario analysis (e.g. carried out through seasonal assessments) aims to conduct a survey on the effect of hazards (or any other change) on the future access of households to food and income.

4.2 - Inventory of available data

An inventory of the data available for the analysis is necessary at the start of the workshop to identify missing data in advance and take the necessary measures before filling in the LIAS. The HEA focal points must present the participants with an inventory of data from both primary and secondary sources, using an Excel spreadsheet provided for this purpose. If some data is still missing, the participants in the analysis must agree on how to obtain this data and perform rigorous follow-up to obtain it before anyone begins to fill in the LIAS. It would be exceedingly difficult to collect any missing primary data during the analysis, so analysts can agree on a problem specification which they will include in the revision part of the analysis. This solution is also applicable to missing data from secondary sources.

4.3 - Presentation of the LIAS

Various spreadsheets are used to conduct seasonal HEA analyses. We can cite the Dashboard, the single zone spreadsheet, and the Livelihood Impact Analysis Spreadsheet (LIAS). In this sub-region, the LIAS is the most commonly used spreadsheet for HEA outcome analyses. The LIAS is used to conduct outcome analyses covering up to 20 districts, 12 livelihood zones and 4 wealth groups. The LIAS has 9 sheets as follows: Baseline (B), Population (P), Livestock (L), Crops (C), Market (M), Other sources of income and food (O), Results (R), Graphs (G), Seasonality (S). The problem specifications are entered into the sheets L, C, M and O. The sheets R, G and S visually display the results of the analysis. Sheet B contains the baseline data for each livelihood zone, whilst sheet P contains the population data as well as the distribution of socio-economic groups drawn from the Baseline. There are two versions of the LIAS, one for pastoral areas, and another for arable areas. Their difference lies in the number and types of speculations and livestock contained in Sheets C and L.

At the start of the analysis, it is strongly recommended that facilitators present the LIAS well and explain the stages of the analysis. This approach will allow new participants to understand the logic and be able to contribute effectively to the analysis.

4.4 - Filling in the LIAS

4.4.1 - Population sheet (P)

Population data is needed to estimate the number of people in need of assistance. Consequently, the population data used in the analysis must correspond to the number of people living in the livelihood zones covered by the HEA baseline profiles. The population sheet records the population growth rate since the country's last population census, using the growth rate for the districts located in the livelihood zone or the country as a whole, depending on what information is available.

4.4.2 - Crops sheet (C)

Data on crops is necessary in the HEA analysis to estimate the contribution of crops to covering annual household food and energy needs. For each crop, data is entered for the reference year and the current year. Should the data be unavailable, analysts can agree on a problem specification in relation to the reference year that they will enter into the revision part of the analysis. Data on crops is in most cases provided by the ministries who track agricultural statistics. Finally, make sure that the table of total crops is correctly configured (line 830 and following). This table allows you to group different types of crops to compare the overall evolution in production by district.

4.4.3 - Livestock sheet (L)

The livestock production data used in HEA results analyses are many and varied (see the section on collecting key parameters). Unlike the other LIAS sheets, this section does not include data for the reference year and for the current year separately. For all this data, analysts need to calculate and enter the problem specification for each key parameter in the corresponding column. If there is significant change in the problem specification for breeding females or the excessive death of animals, analysts should provide rigorous explanations. Any change in the proportion of lactating females among the breeding females in a herd is crucial information which has effects on milk production at household level and therefore has consequences on the level of income and the coverage of food needs. If a high animal mortality rate is expected in the different livelihood zones, this change must be expressed by entering the percentage of loss expected in terms of the number of animals. For example, for a loss of 20 animals out of 100, analysts must enter 20% and not 80%.

4.4.4 - Market sheet (M)

All the price data is entered into sheet M. These are the purchase prices of staple cereals, the selling prices of agricultural products, the prices of animals, rates of remuneration, and the prices of goods and services. As regards the items in the livelihood protection basket, it is not a question of entering the households' expenditure but rather the evolution of the unit price of the goods and / or services in the basket. Sheet M also includes the inflation rate: in a LIAS, the cumulative inflation rate differs from one livelihood zone to another depending on the reference year of the Baseline profile. The price indices for the different reference years should first be entered by assigning the value 100 to the livelihood zone with the most distant reference year. Then calculate the cumulative rate of inflation for each reference year that follows.

Since the aim to produce a seasonal analysis for a consumption year, it is the projected prices for the lean period that are used for each zone's staple foodstuffs, because it is assumed that it is during the lean period that foodstuffs are the most purchased.

HEA analysts often find it difficult to collect the education and health data that are part of the livelihood protection basket. If this situation arises, analysts are free to leave the problem specification box empty and the inflation rate will be used to update the costs.

4.4.5 - Other sources of income and food sheet (O)

Certain sources of income are included in two different places in the LIAS, on sheet M (market price) and on sheet O (access to or availability of the source of income). For sources of income such as work, this makes sense since the two parameters, the daily wage and the amount of work available, can often vary. The rate of pay is captured on sheet M whilst sheet O captures the level of access to work.

Analysts must be careful in checking that coping strategies (for example, increased migration for work) are not included in the problem specifications, since these are already taken into account in the expandability of the baseline. Quantitative problem specifications should only be changed to reflect changes in access to markets (for example, a decrease in access to agricultural work outside the zone because crops have failed). Unless there is such a problem, the problem specification boxes reserved for this purpose must remain empty (and therefore equal to 100%). The same approach applies to variations in access to / availability of petty trade, or in-kind or cash donations. As it is unusual to have information on these sources of income and food, the usual practice is to leave the problem specification blank. For the sale of firewood / charcoal, only enter problem specifications that indicate a change in market access (for example, a ban on the sale of firewood).

In general, it is advisable to keep food aid at 0%, even when food aid is distributed. This is in order to estimate the actual food requirements based on the production results and prices for the current year. Need estimations can then be revised by considering the quantity of food aid that has already been distributed or that is being distributed in a given zone.

In sheet O, analysts should check and enter the option of coping strategies. This is an important choice to make. Selecting option 1 indicates that no coping strategy is included in the analysis (no expandability of food and income sources), not even strategies with a relatively low impact on livelihoods (such as limited intensification of livestock

sales or increased sales of high-value crops). This option can be appropriate when the current year is a normal year or a good year (i.e. no coping strategy is necessary). The other options are detailed in the table in the appendix.

4.4.6 - Results sheet (R)

Sheet R enables practitioners to view the main results of the analysis for each district analysed. The situation of each socio-economic group is presented in terms of its survival deficit and livelihood protection deficit. For districts with a deficit situation, the sheet provides an estimation of the number of people needing external assistance to reach their survival threshold and / or the livelihood protection threshold, as well as an estimation of the amount of food and cash necessary to cover the deficits observed and the number of months over which intervention will be necessary.

4.4.7 - Graphs sheet (G)

Sheet G enables analysts to view the result of the analysis in graph form. To visualise the changes in expenditure and sources of food and income compared to the baseline, analysts need to select the district, the livelihood zone and the socio-economic group whose livelihood situation they want to analyse. Sheet G also shows the survival and livelihood protection deficits as a percentage, on lines 60 and 61, column AI.

4.4.8 - Seasonality sheet (S)

Sheet S allows analysts to visualise the seasonality of the deficit for each socio-economic group facing a deficit situation within the livelihood zone. Sheet S also provides a detailed view of the seasonality of expenditure and access to income over the twelve months of the consumption year, and the months during which households will experience a deficit situation.

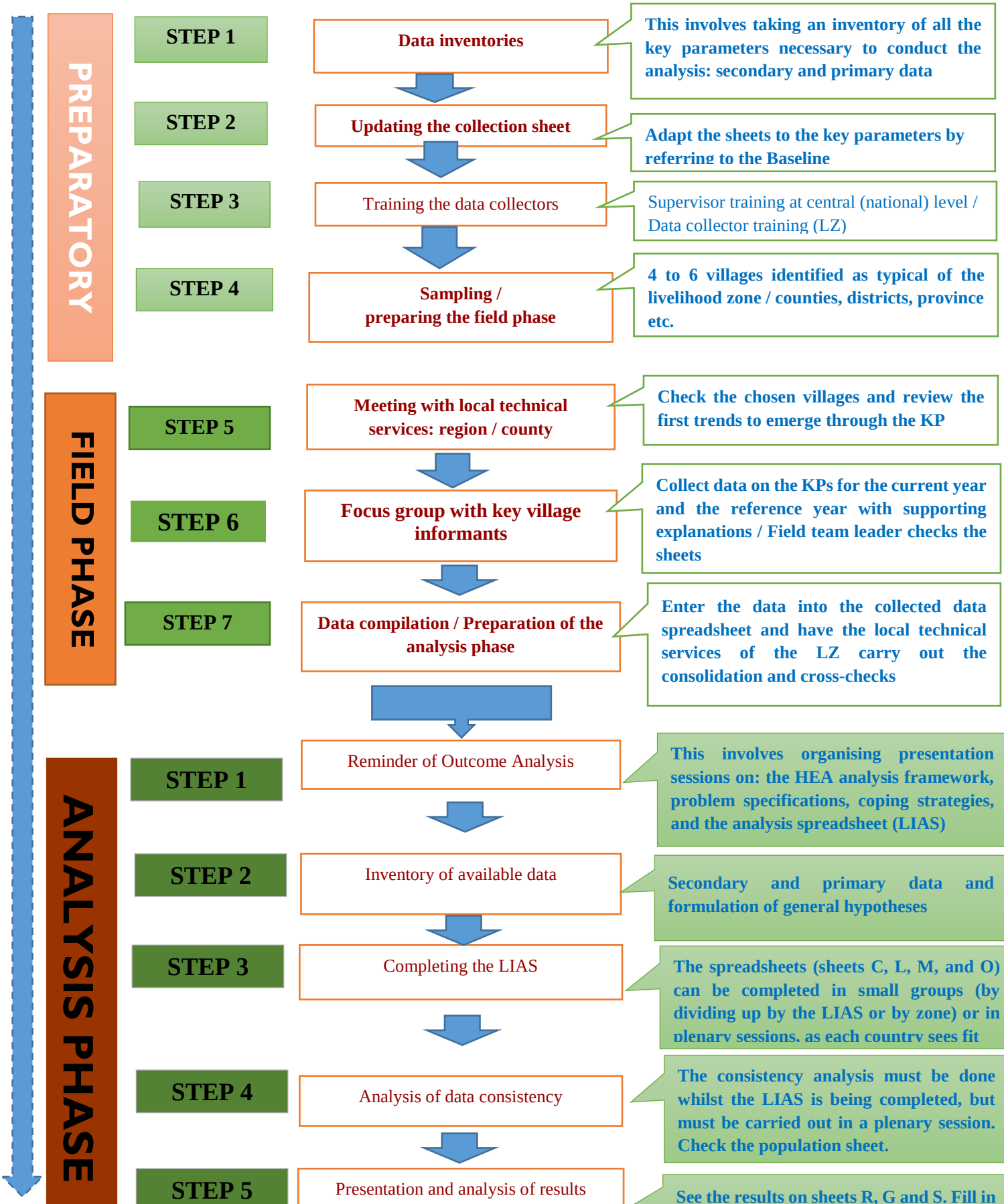
4.5 - Analysis of data consistency

After filling in the LIAS, the next step is to check the consistency of the data entered for each key parameter. Analysts must go through the different sheets to agree definitively on the problem specification for each key parameter. It is at this stage that analysts can adjust certain problem specifications, as necessary. Explanations must be provided for each key parameter presenting an abnormal situation to account for the change with respect to the reference year.

4.6. - Presentation and analysis of results

The presentation of the results at the end of the analysis is an important step serving to highlight the study's main results. In addition to the members of the HEA working group who conducted the analysis, those in charge of the early warning system, the IGOs, in particular the CILSS if available, those in charge of United Nations agencies, in particular FAO and WFP, the National Technical Coordinator of FEWS NET if one exists, and the donors who finance food assistance interventions, must all attend this presentation of the results. The presentation should be planned for whilst the analysis is still in preparation, not at the end of the workshop. At this session led by the focal points of the lead organisation and the EWS, the main trends emerging from the results as well as the accompanying explanations should be presented.

IV- DIAGRAM OF THE DIFFERENT STAGES OF THE DATA COLLECTION AND ANALYSIS PROCESS



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