World Food Programme

SAVING LIVES
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Minimum Expenditure Baskets

Guidance Note

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Minimum expenditure baskets

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The essential needs analysis workstream

This guidance note is part of a package of essential needs analysis guidance. WFP's essential needs analysis workstream is a collaboration between the Research, Assessment and Monitoring (RAM) Divsion and the Cash-Based Transfers (CBT) Division of WFP.

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Preface – the essential needs approach

What are essential needs?

This guidance note on minimum expenditure baskets is part of a package of guidance on the analysis of essential needs. This preface provides a brief introduction to the concept of essential needs, the rationale behind the package of guidance for the analysis of essential needs, what this analysis entails and how the different analytical pieces can be used.

The concept of essential needs originates in the basic needs approach proposed by the International Labour Organization (ILO). The ILO report on the 1976 World Employment Conference defined basic needs in terms of household private consumption of goods such as food, clothing and housing, and services such as water and sanitation provision, education and public transportation.[1] Since then, **basic – or essential – needs have been broadly defined in several analytical frameworks as the essential goods and services required on a regular or seasonal basis by households to ensure survival and minimum living standards, without resorting to negative coping mechanisms or compromising their health, dignity and essential livelihood assets.**[2]

> ***What counts as essential will greatly depend on the context and on what people themselves consider the most important aspects necessary to ensure their survival and wellbeing.***

This amounts to a working definition for a highly contextual concept. The definition is not a universal list of what constitutes essential needs. International humanitarian and human rights law offer a useful starting point for that, protecting the rights of crisis-affected populations to food, water, sanitation, clothing, shelter and lifesaving healthcare. However, what counts as essential will greatly depend on the context and on what people themselves consider the most important aspects necessary to ensure their survival and wellbeing. In order to move from the concept to concrete analysis and action, **any definition of essential needs should always be contextualized** and verified through consultations with the population of interest and other stakeholders.

Why is WFP interested in essential needs?

The analysis of essential needs, how people meet them and where there are gaps or constraints to meeting them enriches insight into food insecurity, its drivers and how it is connected with meeting other needs. A thorough understanding of essential needs helps in the design of effective food security responses.

Among essential needs, food is central. Often, food is the need on which poor households spend the largest share of their resources. But a household's ability to meet its food and nutrition needs also depends on its ability to meet other essential needs. When households have limited resources, they will constantly have to prioritize between often equally urgent needs. They may have to decide between spending money on healthcare or school fees or on buying different types of food. At the same time, being in poor health or having limited access to clean water negatively impacts a household's ability to be food and nutrition secure. This illustrates the importance of analysing essential needs together and explains why adopting the lens of essential needs can be of great value for understanding food security and designing food and nutrition security interventions.

Recognizing this connection between food security and the fulfilment of other essential needs is paramount when working to reach the Sustainable Development Goals (SDGs). The WFP strategic plan for 2017–2021 points out that in order to achieve SDG 2 – End hunger, achieve food security and promote sustainable agriculture – WFP needs to integrate a life-changing strategy along with its lifesaving focus. This means working towards sustainable food security and nutrition goals while understanding how achieving SDG 2 is linked to progress towards other SDGs.

Building strategic partnerships for stronger synergies is key to improving food security. SDG 17 – Strengthen the means of implementation and revitalize the global partnership for sustainable development – recognizes the crucial role of partnerships in achieving holistic and sustainable

1. Employment was considered both a means and an end, and participation in decision making was also included.
2. See the Cash Learning Partnership's *Glossary of terminology for cash and voucher assistance* (CaLP glossary); and Save the Children UK, 2018.

outcomes for affected populations. Another key international agreement, the Grand Bargain, committed its signatories to working together in a more efficient and harmonious manner in order to better assist the growing number of vulnerable people affected by crises around the world.

Against this backdrop and based on best practices by WFP and partners, an integrated analytical package has been prepared to provide guidance on how to analyse essential needs. This package builds on existing guidance and research together with practical experience and lessons learned. It is designed to provide analytical results that can be used to inform strategic and operational decision making and programme design.

As analysing, understanding and assisting people in meeting their essential needs is by definition not a single-agency undertaking, the package developed by WFP is intended as an analytical starting point for interagency collaboration. It offers data-driven approaches and quantitative indicators but also allows for analytical flexibility, emphasizing the importance of collaboration, qualitative inquiry and contextual adaptation.

Essential needs analysis is particularly relevant where WFP and partners seek to support government strategies and policies such as informing the design of social safety nets, as a toolbox to support the design of multi-stakeholder joint assessments, or joint, harmonized or complementary interventions. Essential needs analysis has proven useful in a variety of contexts, from refugee camps to chronic food insecurity settings. It is often highly relevant when assessing the situation of poor urban populations: urban households depend heavily on markets to meet their food and other essential needs, including housing; high living costs and unstable income sources make them vulnerable to shocks, forcing households to choose between meeting different essential needs in times of hardship.

What is essential needs analysis? The analytical package

The WFP essential needs analysis package consists of three parts:

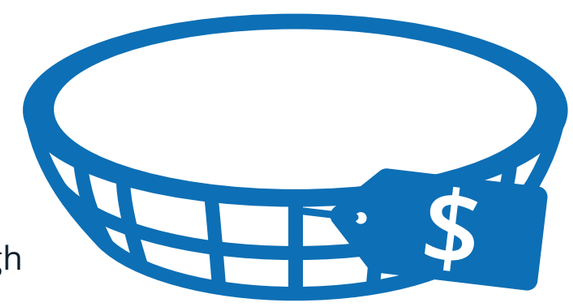
The **essential needs assessment** is a household and/or community assessment that helps to understand if and how people are meeting their essential needs; as such, it focuses on the demand side of essential needs. The assessment seeks to identify and analyse essential needs and gaps, estimate the number of people in need and profile them by describing their main characteristics. It aims to answer the following questions:

- What are the population's essential needs and how do people meet them?
- Which essential needs are unmet and why?
- How many people are unable to meet their essential needs?
- Who are the people that are unable to meet their essential needs?
- Where are the people that are unable to meet their essential needs?
- How can households be assisted to meet their essential needs?

The essential needs assessment promotes the use of qualitative and quantitative analysis. It proposes a suite of essential needs indicators that capture various aspects of essential needs and a household's ability to meet them, including measures of household economic capacity to meet essential needs, deprivations of different essential needs, how households cope when they struggle to meet their essential needs, and how they prioritize unmet needs.

An integrated analytical package has been prepared to provide guidance on how to analyse essential needs. This package builds on existing guidance and research together with practical experience and lessons learned.

The **minimum expenditure basket** (MEB) looks at the needs that are covered, partially or fully, through the market. It sets a monetary threshold, which is defined as what households require in order to meet their essential needs. The starting point for constructing a MEB is usually household expenditure data. This data is analysed and triangulated with sector-based needs information to obtain a measure of the minimum cost of essential needs based on the population of interest's actual demand pattern and consumption priorities. The expenditure data can be gathered as part of the essential needs assessment data collection. Once constructed, the MEB itself serves as a key input in the essential needs assessment set of indicators as it is used to assess which households have the economic capacity to cover their needs through the market.



The **supply analysis** looks at the supply of essential goods and services and examines whether the market and/or public provision can sustain the demand related to essential needs. It integrates quantitative methods for examining the basic functioning of the marketplace with qualitative investigation of supply and access.

The three guidance tools are designed so that they can be used independently or together. A full essential needs analysis would require undertaking an essential needs assessment, constructing a MEB and carrying out a supply analysis; this combination is recommended for the most complete analysis as each piece complements the others.

> *A full essential needs analysis would require undertaking an essential needs assessment, constructing a minimum expenditure basket and carrying out a supply analysis.*

The foundational understanding of essential needs gained from the essential needs assessment can feed into the supply analysis. The results can help to focus a complex market analysis on the most critical needs, while household data can be used to understand how households perceive the supply and quality of essential services and their access to them. At the same time, a thorough analysis of the supply of essential goods and services enriches the understanding of household demand and enables the analyst to identify possible interventions: Which needs can be met through the market? Is there effective demand, and would supply or demand-side interventions or a combination of these be better suited to assisting the population of interest? The MEB connects supply and demand in the sense that it identifies a monetary threshold for meeting essential needs through the market. It enables the essential needs assessment to identify households with sufficient economic capacity; it also has strong complementarities with the supply analysis as it helps reveal market consumption patterns. In turn, the supply analysis is a valuable input for a MEB analysis as it highlights which goods and services are adequately supplied.

> *Essential needs analysis provides a framework that is easy to operationalize, while offering the flexibility and detail necessary to adjust to different contexts.*

The analytical approach draws on different schools of thought from the fields of humanitarian action, development and poverty analysis. It combines ideas from the cost-of-basic-needs approach for monetary poverty lines, which sees poverty as the deprivation of consumption, with more multidimensional poverty perspectives from human development and capabilities approaches. Through this combination, the essential needs analysis provides a framework that is easy to operationalize, while offering the flexibility and detail necessary to adjust to different contexts, and to produce information relevant for programmatic decision making.

While the three pieces of analysis should be carried out together as much as possible, there may be situations in which only one piece is necessary, for example when the analysis is spread out over time or different collaborators lead on different pieces. Each guidance note is designed as a standalone document, enabling analysts to follow it without reference to the others.

A series of operationalization guidance notes and documented best practices complement the analytical package. The series offers concrete guidance on how the results of the essential needs analysis can be translated into programme design and inform decision-making. Essential needs analysis identifies where households face critical gaps in meeting their needs, the cost of meeting those needs in the market and whether the necessary essential goods and services are available. As such, it forms the basis for programme design for both demand and supply-side interventions. Results can, for example, be used to inform the targeting and prioritization of beneficiaries, the selection of transfer modality, the setting of transfer values and other programme design features. It is well suited for monitoring needs over time and evaluating the effectiveness of programmes. This series will be continuously updated to reflect new learning.

While essential needs analysis can inform programme design, it does not have to imply an essential needs response. Essential needs analysis and the analytical package can be a service offering, particularly when supporting governments in designing policies, strategies and programmes at national and local levels.

Figure 1. Essential needs analysis

About this guidance note

This guidance note sets out the basic steps for constructing a minimum expenditure basket (MEB). It is designed to provide conceptual clarity and best practices, built on experience from the humanitarian and development fields. The guidance is designed to provide a series of options in order to facilitate a context-specific application of the recommendations it presents.

The guidance note begins by introducing the concept of the MEB and its different usages (sections 1 and 2). Sections 3 to 6 cover how to construct a MEB, including important aspects to consider before starting the analysis and the different MEB approaches. Section 7 examines how to deal with household size and composition in MEB analysis, while the concept of the survival minimum expenditure basket (SMEB) is introduced in section 8. Section 9 sets out additional considerations such as regional or seasonal price adjustments and section 10 explains how to find MEB proxies when time or data is insufficient. In closing, section 11 offers guidance on how to update and monitor the MEB.

1 What is a minimum expenditure basket?

A MEB is defined as what a household requires in order to meet their essential needs, on a regular or seasonal basis, and its cost.[3] Essential (or basic) needs are defined as "the essential goods and services required on a regular or seasonal basis by households to ensure survival and minimum living standards, without resorting to negative coping mechanisms or compromising their health, dignity and essential livelihoods assets".[4] The MEB is a monetary threshold – the cost of these goods, utilities, services and resources – and is conceptually equivalent to a poverty line.[5] It typically describes the cost of meeting one month's worth of essential needs. Since the MEB sets a monetary threshold for what is needed to cover essential needs, the households whose expenditures fall below the MEB are defined as being unable to meet their essential needs.

In poverty literature and research, MEBs have long been constructed primarily to set national poverty lines and determine the percentage of households in the population who are poor, i.e. who cannot meet their essential needs. The "cost of basic needs" approach, which entails establishing a MEB, is fairly new in humanitarian contexts; however, it has long been the most common way to construct national poverty lines.[6] As a result, there is often national experience to draw on when setting out to construct a MEB.

A MEB does not necessarily contain all the essential needs of a household. It only captures needs that the households cover entirely or partly through the market. It should not be an attempt to monetize all the needs of a population. For example, in contexts where electricity is considered an essential need but not available for the population of interest, it should not be included in the MEB. If shelter is provided free of charge in a refugee camp, or education is publicly provided for free, these needs and their costs are not captured in the MEB. Hence, a need can be essential but not included in the MEB.

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A MEB captures the cost of essential needs for average households. It does not typically capture ad-hoc or one-off costs. This can be challenging, particularly in emergency situations when needs are dynamic. While this guidance suggests keeping the MEB composition fixed as far as possible, in such situations it might be justified to create an interim MEB (see section How to find a proxy for a MEB when data or time is insufficient) and when the situation has stabilized, a final one. A similar challenge is presented with

[3] This builds on the definition in UNHCR et al, 2015.
[4] Definition of basic needs. See CaLP glossary.
[5] Note that conceptually, a MEB is equivalent to a poverty line in that it describes a monetary threshold for being able to cover essential needs. This does not mean that the MEB is equivalent to **the** national poverty line.
[6] Haughton and Khandker, 2009.

needs that are inherently irregular, large and unpredictable, such as health needs. This is also examined in the sections on MEB construction.

There are different approaches to establishing a MEB. As the World Bank's Handbook for Poverty and Inequality explains,[7] the typical starting point for establishing a MEB is to estimate the cost of acquiring enough food to meet energy requirements, usually 2,100 calories per person per day, as per the Sphere Standard. Yet the cost of 2,100 calories varies with the diet of households, which typically depends on their economic status. The cost of other essential non-food needs is then added. There are two approaches to establishing which food and non-food items should be in the MEB: an expenditure-based approach that focuses on effective demand; and a rights-based approach based on assessed needs. While the expenditure-based approach is usually used to construct national poverty lines, the rights-based approach is the principal method followed in the operational guidance for multipurpose cash grants developed for humanitarian purposes.[8] A combination of these approaches, a hybrid approach, can also be used and is often recommended. This guidance describes each approach.

The construction of a MEB is always somewhat arbitrary. However a MEB is constructed, choices need to be made along the way. The objective of the MEB can influence how best to approach its construction. The choice of the group of people whose effective demand will be examined – the "average" households – is another important influencing factor. This guidance provides direction on how to make these choices but analysts will always be required to exercise judgement.

A MEB is not equivalent to a transfer value. A transfer value is understood as the monetary value transferred from governments or organizations such as WFP to households in order to support the latter in meeting their needs. The value of the MEB is not the same as the value that should be transferred to households, but the MEB can be a critical component when determining transfer values. Most households can rely on their own resources to meet at least some of their needs, so the transfer value will usually be less than the value of the MEB, covering the gap between households' own resources, other assistance received and the MEB. The distinction between the MEB and the transfer value is also important because the MEB remains the same regardless of assistance and funding constraints, while the transfer value could be impacted by these factors.[9]

When using the MEB to monitor impacts of an intervention or programme, the MEB should not be changed over time. The threshold should only be adjusted for price changes or when any major changes in context and households needs occur that would require the construction of a new MEB.

2 Why have a MEB?

The MEB has a range of applications. **In humanitarian and development programming**, the MEB can support household profiling by identifying characteristics of those who cannot meet their essential needs[10] and support decisions on transfer value amounts for food and non-food needs. **For partnerships**, the MEB can support multi-sector coordination and programming with government, partner organisations and donors. **In market and supply analysis**, the MEB can help inform which goods and services to include in a Supply Analysis by showing which essential needs households cover through the market. Finally, in **monitoring**, the MEB can assist monitoring of immediate and longer-term outcomes through analysis of expenditure trends against the MEB and help establish a basket against which to monitor market prices and the cost of living.

A hybrid approach to constructing the MEB combines the expenditure-based approach and the rights-based approach and is often recommended.

[7] Ibid.
[8] UNHCR et al, 2015.
[9] For further discussion on considerations when setting a transfer value, see WFP, 2020c.
[10] For one possible application, see WFP, 2020a.

3 How to construct a MEB: generic steps

A MEB is constructed by estimating the cost of acquiring adequate food and adding the cost of other essential non-food expenditures.[11] The box below shows the steps that are always part of constructing a MEB.

The two principal methods for constructing MEBs are the **expenditure-based approach** and the **rights-based approach**. Sections 5 and 6 describe these approaches and how to combine elements of both to apply a **hybrid approach**.

Regardless of approach, it is crucial to arrive at **a realistic, relevant and operational MEB that is rooted in consumption behaviour** – section 6 also looks at how to ensure this. Before going into the details of construction, the next section outlines the key questions to ask before starting the MEB analysis.

HOW TO

Box 1

THE MEB TO-DO LIST

- ☐ Identify key partners and stakeholders and decide on objectives and process
- ☐ Determine the analytical starting point (*e.g. examine national poverty lines, set the population of interest, check what data is available*) and decide on approach
- ☐ Construct the food basket
- ☐ Construct the non-food basket
- ☐ Reality check results and validate with stakeholders

DEPENDING ON CONTEXT, ALSO CONSIDER

- ☐ Accounting for household size and composition
- ☐ Adapting the MEB to different needs across regions or seasons
- ☐ Adjusting the MEB for regional or urban/rural price differences if significant

[11] This is in line with the cost of basic needs approach widely used for poverty lines, as described in previous sections.

4 Before starting the analysis

Before embarking on the construction of the MEB components, consider the following questions to decide how best to approach the analysis.

What is the objective and who will be the partners?

Start by setting the objective and consider what the MEB will be used for once the analysis is finished. If the MEB analysis is a joint exercise, identify potential partners, possibly in interagency working groups such as a cash working group; find out what kind of information various organizations can share and decide on the division of labour. In some cases, it can be helpful to write terms of reference for the MEB analysis in order to clarify the envisioned process and methodology. Even if the MEB analysis will be conducted by just one agency, it is always a good idea to identify partners who will be interested in the results and who can be consulted along the way.[12]

Who is the MEB being constructed for?

It is important to define the population of interest for the MEB. Is it intended to be valid for the entire country? Or will it only be used in a refugee camp, for example, or a particular region where needs might differ from those in the rest of the country? It is vital to decide from the start where and for whom the MEB should apply. Since the MEB describes the cost of essential needs, the population for whom the MEB is constructed should ideally have relatively homogenous consumption patterns and needs. If consumption patterns are very different, consider constructing different MEBs or varying certain components of the MEB for sections of the population.

Have any MEBs already been created for the population of interest?

If there are one or more MEBs already in use, the analytical exercise might be aimed at updating or even "reality checking" the existing baskets to see whether they still match consumption behaviour and price levels. If existing baskets are found to be valid and relevant, it might not be necessary to start a new MEB analysis.

What information and data is already available, and is new data needed?

Consider what data or analysis is already available from essential needs assessments or other household surveys (undertaken by WFP or others). Does the data cover the area and population of interest? Also consider what qualitative information might be available to shed light on certain expenditure patterns, and whether there is access to market and price information. If the data available is insufficient or outdated, plan to collect fresh data. A MEB analysis is greatly strengthened by being conducted as part of a comprehensive essential needs assessment. The assessment describes the essential needs of the population of interest, which is a useful starting point for a MEB analysis and complements the monetary perspective provided by a MEB.

Since the MEB describes the cost of essential needs, the population for whom the MEB is constructed should ideally have relatively homogenous consumption patterns and needs.

Can the national poverty line be used?

Before beginning the construction of a MEB, it is useful to find out if a national poverty line exists and how and when it was constructed. Many countries have their own national poverty lines so why not use this poverty line (and the corresponding basket) as the MEB? Whenever possible, the first choice should be to align with government practices. However, this is often not feasible, for three main reasons:

- Practices vary widely when it comes to constructing national poverty lines. Although the most common approach is the cost of basic needs using MEBs, sometimes poverty lines are set as a share of the country mean or median income or expenditures or as a fixed percentage of the income or expenditure distribution (although this is mostly not the case in low income countries). Furthermore, even when a MEB has been constructed to develop the poverty line, different methodologies exist. For example, sometimes countries exclude non-food items from their poverty line MEB.

[12] The Cash Learning Partnership's MEB Tip Sheet contains useful advice on the interagency processes around constructing a MEB. Baizan and Klein, 2019.

Countries can also have different poverty lines for different purposes and regions.[13] These factors can all limit the use of the national poverty line as the MEB.

- The population of interest for a MEB could differ from the overall population of the country and hence the national poverty line. This group of people may have different essential needs, for instance if they live in refugee camps or do not have access to the same services as the resident population (e.g. public education).

- The data that WFP typically collects through essential needs assessments, comprehensive food security and vulnerability analyses, emergency food security assessments, baseline assessments and post distribution monitoring is often much less detailed than that gathered through the household budget surveys or living standards measurement surveys used to calculate national poverty lines. It is widely observed that the more detailed the survey questions about expenditures, the higher the reported expenditures.[14] If the national poverty line is constructed using detailed data but the assessment of household needs or expenditures relative to the poverty line is based on less detailed data, errors in the analysis are likely to occur. Furthermore, WFP expenditure modules do not include asset depreciation, which is often accounted for when calculating national poverty lines.

Even if the national poverty line cannot be used in most cases and especially in humanitarian contexts, elements of the methodology can perhaps be replicated. It is therefore important to find out how the national poverty line is constructed.

How about using the methodology applied for consumer price indices?

The consumer price index (CPI) is used to measure changes in price levels based on a weighted average consumer basket of goods and services. In most countries, household budget survey data is used to construct the baskets used to measure consumer prices. A weight that corresponds to average household expenditure patterns is applied to each component of the CPI.[17] This basket is not ideal for MEB calculations because it corresponds to overall national average consumption patterns. MEBs are based on the consumption levels and patterns of those households who are just able to meet their essential needs within the population of interest (this is further described in the following sections).

COUNTRY EXAMPLE

E.G. Box 2

EXAMPLES OF NATIONAL POVERTY LINES

In **Zambia**, the national poverty line is constructed using the cost of basic needs MEB approach based on a simple food basket that meets minimum food needs for a family of six.[15] Imagine this food basket costs USD 100 per month. This is defined as the food poverty line. To construct the full poverty line, the minimum non-food needs of households are estimated based on the average share of expenditure that households just above the food poverty line dedicate to needs other than food. Let us say that this corresponds to USD 35 per month. The total poverty line is then the sum of the food and non-food lines, which with these hypothetical figures would be USD 100 + USD 35 = USD 135.

By contrast, **Turkey** uses the standard European Union approach to measuring poverty, which is 50 or 60 percent of median income.[16] However, eligibility for social assistance is based on the gap between household income and the national minimum wage.

[13] Jolliff and Prydz, 2016.
[14] Haughton and Khandker, 2009.
[15] Republic of Zambia Central Statistical Office, 2016.
[16] See Turkish institute of statistics data portal. https://data.tuik.gov.tr/Kategori/GetKategori?p=Income,-Living,-Consumption-and-Poverty-107
[17] The CPI weights are usually available through national statistical offices.

5 Constructing a MEB: expenditure-based and rights-based approaches

5.1 The expenditure-based approach

The expenditure-based approach to constructing a MEB relies on household-level expenditure data to examine the consumption behaviour of households who are just able to meet their essential needs. The expenditure level and consumption patterns for this group of households reveal the minimum cost of covering essentail food and non-food needs and therefore form the basis of the expenditure-based MEB.

The expenditure-based approach builds on the theory behind poverty measurement and poverty line construction. To measure poverty, the first step is to define a measure of wellbeing. In developing country contexts, consumption is generally considered a better metric of wellbeing than income, and in turn, consumption expenditures as captured in household data generally provide the most reliable measure for consumption.[18] Household survey data on expenditures therefore provides the foundation for measuring wellbeing and is used to set the MEB threshold.

The steps for constructing a MEB using the expenditure-based approach are explained below.

1. Prepare the expenditure data

The prerequisite for an expenditure-based MEB is a good-quality household survey with a *detailed expenditure module*, with a *sufficient sample size* representative of the population for whom the MEB is being constructed (the "population of interest").

> ***In developing country contexts, consumption is generally considered a better metric of wellbeing than income, and in turn, consumption expenditures as captured in household data generally provide the most reliable measure for consumption.***

The notion of a **"detailed" expenditure module** is a relative one. Constructing an expenditure-based MEB requires more detailed data on different types and groups of expenditures than is usually gathered by household surveys conducted in humanitarian settings. However, this guidance has been designed to cope with less detailed expenditure data than that gathered through extensive national expenditure surveys, such as the very granular expenditure modules typically used when constructing poverty lines (e.g. national household budget surveys, household income and expenditure surveys, living standards measurement surveys or other large-scale household surveys).

What is a **sufficient sample size**? The survey should always follow good practices for sampling.[19] Consider that for MEBs, the analysis focuses on the consumption patterns of a subset of the sample, the "reference cohort" (see next below). The characteristics of the population and the cohort selection criteria determine the size of this subsample in relation to the overall sample, but experience shows that the cohort can comprise between 10 and 60 percent of the sample. The sample will be further disaggregated if analysis by household size or group of household size is desired (see section 7 on accounting for household sizes).

Using expenditures to understand consumption involves calculating a **"consumption aggregate"**. This entails combining household expenditures on food and non-food, paid in cash or through credit as well as the imputed monetary values of consumed own production and received assistance. Expenditures are analysed in per-capita values. Box 3 describes this process in more detail. Annex 1 further outlines some best practices when analysing expenditure data.

In addition to the household survey data, **market price data** is needed in order to estimate the final cost of the basket. The price data should be collected around the same time as the household survey data.

[18] Deaton and Zaidi, 2002; and Haughton and Khandker, 2009.
[19] For guidance, see WFP, 2004. Additional resources can be found in the online VAM Resource Centre: https://resources.vam.wfp.org/.

HOW TO

Box 3

EXPENDITURE DATA IN MEB CALCULATIONS - CONSTRUCTING A LIGHT "CONSUMPTION AGGREGATE"

Using expenditures to calculate a MEB entails combining different household expenditures to arrive at a measure of household consumption. This is typically referred to as a consumption aggregate, although a lighter version is used than those usually constructed for national poverty lines due to the less granular data typically available for MEB construction.[20]

Expenditures considered in a MEB should reflect household consumption related to essential needs. Therefore, both household expenditures made **in cash** and those **on credit** must be considered, as the latter also reflect current consumption even if payment occurs later. If the population can be expected to consume food from their **own production**, the value of this food should be captured to avoid underestimating food expenditures. Lastly, if the surveyed households are receiving and consuming **assistance**, it is advisable to estimate the implied value of this assistance and include it in the expenditures (however, care needs to be taken if the population of interest includes a large group of in-kind assistance beneficiaries as this can significantly skew consumption choices; see next section on selecting the reference cohort). In summary, the expenditure module should capture any expenditures made in the reference period through cash and credit purchases, as well as the monetary value of consumed own production and assistance. Most standard expenditure modules include all these types of expenditures.

Expenditures should be collected for both food and non-food goods and services. For food, expenditures at the food group level are required as a minimum. If food expenditures are collected at the item level, a more granular analysis can be performed. The same applies for non-food expenditures: they must be available at the group level, and item-level data will add detail. However, whenever household data is collected, a balance needs to be struck between the granularity of the data and the time and resources available for its collection.

The WFP standard expenditure module can be used as a reference for the minimum requirement for expenditure data collection. WFP standard modules can be found in the online VAM Resource Centre: https://resources.vam.wfp.org/

2. Select the reference cohort

The next step is to identify the households in the survey data that are just able to meet their essential needs and examine their expenditures. Including households below this level would generate a basket that does not satisfy essential needs, while including relatively wealthier households would lead to the inclusion of non-essential needs and therefore inflate the MEB. But what is "just enough"?

Identifying the cohort of households who are *just able to meet their needs* can be challenging. How to approach it depends on the characteristics of the population and the available data. **The key is to identify one or more criteria that can be good proxies for whether households are just able to meet their essential needs and that can be observed in the data**. One basic indicator would be a food consumption of 2,100 kcal per person per day.[21] However, since the available expenditure data is often too crude to make accurate calibrations of diet compositions around the 2,100 kcal point, the use of alternative indicators is highly recommended. These could be indicators such as food consumption score (FCS) or food consumption score – nutrition (FCS-N),[22] which indicate whether households eat sufficient and balanced diets; quality of housing indicators; use of coping strategies (selecting households who do not engage in severe strategies); or any other indicator that reflects a household's ability to meet its needs. Combining several indicators is often useful.

[20] For thorough guidance on constructing consumption aggregates using data from living standard measurement surveys (LSMS), see Deaton and Zaidi, 2002. In most WFP cases, household data is less granular than the LSMS-type datasets. This section therefore describes how to construct consumption aggregates with less detailed data.

[21] Use of calorie consumption close to the Sphere Standard of 2,100 kcal/person/day as the starting point for selecting the reference cohort originates in the cost of basic needs approach used in most national poverty line estimations.

[22] WFP, 2008; and WFP, 2015.

It is also recommended to examine the expenditure distribution. Excluding households in the extreme ends of the expenditure distribution can help ensure that the cohort is neither "too poor" nor "too wealthy" (e.g. by removing households in expenditure quintiles 1 and 5 or similar exclusion criteria based on distribution characteristics). This is in particular useful if there is a relatively large spread in wealth across the sampled population.

Figure 2 provides a simplistic depiction of selecting the reference cohort: the aim is to identify households that are just able to cover their needs, and hence do not fall in either extreme end of the spectrum.

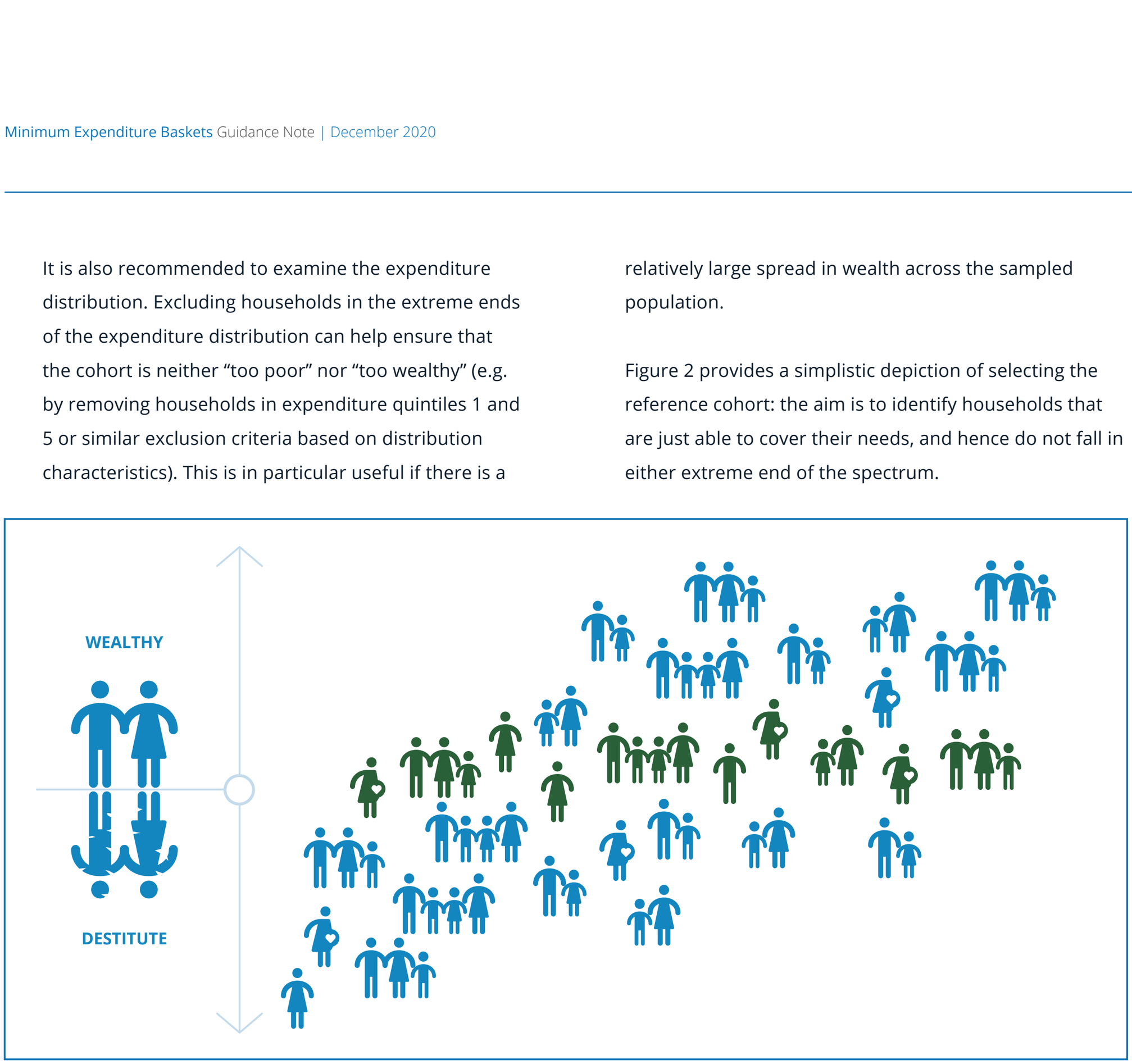


Figure 2. Selecting the MEB cohort.
In simple terms, it is useful to think of the green people in the figure as the basis for selecting the reference cohort: they are not amongst the worst-off, nor the wealthiest – but rather, are just able to meet their essential needs.

HOW TO

Box 4

REFERENCE COHORT SELECTION

Scenario	Possible approach to selecting the cohort *Use one or several of the below criteria:*
There is a spread in the population in terms of well-being and a proportion is able to cover their essential needs; no households receive assistance	■ Select households with an acceptable FCS[23] or with adequate consumption in FCS-N who do not use negative coping strategies (or have a high coping strategy index). ■ Combine or cross-check with other criteria such as dwelling quality or asset index ■ Exclude extreme expenditure quintiles.
A relatively large proportion of households receive food assistance	■ Exclude households receiving in-kind food assistance from the reference group (if sample size allows). This is because any assistance that is not unrestricted cash might influence the consumption choices of the beneficiary households (in-kind food means a large portion of food consumption is determined by the assistance provided, not the households). However, be aware that if the majority of households receive some form of restricted assistance, excluding them all from the cohort can lead to sample size issues as well as selection bias. ■ Alternatively, to the extent possible, avoid using criteria that are highly influenced by assistance. For example, in the presence of food assistance, the FCS of some households might be acceptable even if they are not able to meet their essential needs. Furthermore, if in-kind food is provided, the consumption behaviour of such households might be skewed as most of their food needs are already covered by assistance. ■ Consider using dwelling quality, an asset index or other similar indicators instead (or in combination with the FCS).
The vast majority of the households are far from being able to cover their essential needs (prior to receiving assistance)	■ Consider using a rights-based approach since it will be very difficult to obtain a big enough sample of households who can meet their essential needs, making it challenging to construct an expenditure-based MEB. Carry out a reality check using the survey data to understand household consumption patterns, keeping in mind that the sample represents a population not able to fulfill their essential needs.

Box 4 outlines some typical cases and presents suggestions for how to select the cohort in a survey sampled on the population of interest.

The use of sensitivity tests is highly recommended, in the form of repetitions of the expenditure analysis for different versions of the reference cohort; this will indicate the extent to which the choice of cohort selection criteria is influencing the MEB.

[23] It is usually not advisable to use the FCS as a single criterion. If it is used alone, the indicator should be capped at a certain level above the acceptable threshold (the FCS builds on a continuous score from 0–112 and applies thresholds for poor, borderline and acceptable consumption). This is because if all households with acceptable FCS are included, this will likely also capture some households who are "too wealthy" to be considered in the reference cohort.

See box 5 for examples of how sensitivity tests can be conducted, as well as how the reference cohort has been identified in different contexts.

COUNTRY EXAMPLE

Box 5

SELECTING AND CHECKING THE REFERENCE COHORT: CHAD, SYRIAN REFUGEES IN LEBANON AND COX'S BAZAR

In **Chad**, the calculation of an expenditure-based MEB relied on national data collected by the Government during their annual national food security and nutrition survey. The reference cohort for the MEB was selected on the basis of two criteria: FCS between 35 and 70, e.g. in an interval around the acceptable threshold; and no adoption of crisis or emergency livelihood coping strategies, based on the livelihood coping strategies indicator. These two criteria ensured that the selected reference cohort had consumption levels that provided sufficient food security and sustainable livelihood strategies.

For Syrian refugees in Lebanon,[24] an expenditure-based MEB was calculated by WFP in order to review an existing MEB. Shelter plays an important role, as most refugees live in an urban host community and face high rents. The FCS reveals whether people can cover their food needs but could be influenced by the presence of food assistance. To ensure results would be robust against the choice of the cohort, two different approaches were compared: both included households of 4 to 6 members (as the MEB under review was defined only for households of these sizes) and excluded households in expenditure quintiles 1 and 5. In version 1, an additional criterion of acceptable FCS was included, while in version 2, an additional criterion of acceptable housing conditions was applied. The results were similar for both cohort versions.

A MEB was calculated in **Cox's Bazar**, Bangladesh, as part of the 2019 Refugee Influx Emergency Vulnerability Analysis (REVA-II)[25] for Rohingya refugees. An expenditure-based MEB was built using a large household survey that included refugees and host community households; the reference cohort also included refugees and host communities as the MEB was meant to apply to both groups. Households receiving in-kind food assistance were excluded to avoid possible bias in consumption choices, which would be reflected in the expenditure data. The reference cohort was then selected based on FCS and expenditure quintiles. To ascertain that the appropriate cohort had been chosen, a sensitivity analysis was conducted, which tested the effect of removing different expenditure quintiles (quintiles 1 and 5 versus quintiles 1, 4 and 5) and including different FCS ranges (FCS 42+ versus FCS 35–80). This showed that across different iterations of the reference cohort, total food expenditures were relatively stable, while non-food expenditures went up when richer households (e.g. in the higher expenditure quintiles) were included. This allowed the analysts to select the cohort of households who were just at the point where the share of food expenditures out of total expenditures began to decrease, as a high share of expenditure on food is often an indicator of vulnerability. In other words, the selected cohort was just at the point where households started meeting more needs than just food and the most basic non-food requirements. The consumption patterns of this cohort -highlighted in table a below - therefore became the basis for the MEB.

Table a

Reference cohort sensitivity analysis – Cox's Bazar MEB

Indicator 1: **expenditure quintiles**	*Indicator 2:* **FCS**	**Sample size**	**Food MEB**		**Non-food MEB**		**Total MEB**
			Value in taka	*%*	*Value in taka*	*%*	*Value in taka*
Exclude quintiles 1, 4 and 5	FCS 35–80	403	5259	0.70	2304	0.30	7562
Exclude quintiles 1, 4 and 5	FCS >= 42	296	5324	0.70	2299	0.30	7623
Exclude quintiles 1 and 5	FCS 35–80	610	5691	0.66	2990	0.34	8681
Exclude quintiles 1 and 5	FCS >= 42	474	5740	0.65	3082	0.35	8822

[24] Hohfeld et al, 2020.
[25] WFP, 2019.

3. Establish the food basket

With the reference cohort identified, the food basket value should be calculated in correspondence with the food consumption patterns of the reference cohort.

To calculate the food basket, start by **computing the mean (or median) food expenditures** for the chosen reference cohort. It is good practice to compute the overall food expenditures and break the analysis down into the different food groups or food items in order to understand how food consumption is distributed across different foods.

Next, consider whether an explicit **reference food basket** is needed in the MEB: this is a list of the food items in the basket and their quantities. Having a reference basket brings advantages in terms of monitoring of the cost of the MEB (as new prices can easily be applied to the quantities), it shows consumption patterns in quantities and can hence help check if food consumption is adequate at the given level of expenditures, and it can help when communicating about the MEB. It can therefore be a useful practice to establish one. However, in some instances, a simple monetary value for the food MEB is sufficient. This could be the case when the MEB is calculated to review an existing MEB, if reference basket is not needed for operational purposes, when time is limited, or where limited data means a reference basket cannot be adequately calculated. Wherever a food reference basket is not needed, the food MEB will simply be the mean (or median) food expenditures by food groups or food items as calculated above. If a reference food basket is feasible and desired, the next steps depend on the level of detail in the data available:

- With **expenditure data and market prices**, a food reference basket can be approximated using expenditures by food group or food item and dividing these expenditures by the relevant food prices. This provides estimates of consumed quantities. Expenditures and prices must be collected at the same time in order to arrive at correct quantities. If, for example, prices are collected six months later than expenditures and prices have changed significantly, dividing expenditures by prices will produce inaccurate estimates.

  Note that the level of detail and accuracy with which a food refence basket can be established using expenditures and prices also depends on whether expenditures were collected at the *food group or food item level*. Box 6 illustrates how to approximate a reference basket when expenditures are collected at the food group level, and box 7 shows an example of a food basket estimation from an assessment in Kinshasa, Democratic Republic of the Congo.

- If the expenditure module includes **consumed quantities of food** in addition to expenditures, a food basket can be established directly based on the consumed quantities by food group or food item. Having data on quantities will also enable analysts to estimate prices directly from the survey data by dividing the household expenditure on a particular food item by the quantity consumed. This can be advantageous as it provides a direct estimate of the prices households actually paid (unlike a price survey, which uses typically consumed items and is often only conducted at specific points of sale). On the other hand, this may introduce issues related to non-standard measurement units that make prices hard to compute and aggregate.[26] Box 8 shows an example from Cox's Bazar of how a food reference basket can be established using item-level expenditures and quantities from the survey data.

Once the quantities consumed have been established using one of the methods described above, it is good practice to check the calories these quantities provide and the balance in terms of nutrients. The basket should be close to the Sphere Standard of 2,100 kcal per person per day – if it is not, one option could be to **scale the basket**. Use information on the calorie content of the different food items in the basket to calculate the total calorie content of the basket.[27] The quantities in the basket can then be scaled up or down to reach 2,100 kcal. However, bear in mind that if the reference cohort has been well selected and the data is of sufficient quality and detail, the basket should already be close to 2,100 kcal. If large rescaling is required, investigate the reasons behind this. For the sake of simplification, quantities can be rounded, and the basket can be streamlined by removing items with very low consumption or nutritional value.

[26] Deaton and Grosh, 2000.

[27] Calorie information of food items can be drawn from a variety of sources. The Nutval tool (http://www.nutval.net/) provides information on calories and other nutrients for a list of items. Consider that the specifications and quality of a product can influence its caloric value (e.g. whole fish vs. fish fillet) – it might be necessary to adjust for this for certain items that vary widely. Many food composition tables (available from FAO for different continents http://www.fao.org/infoods/infoods/tables-and-databases/faoinfoods-databases/en/) contain a wastage factor or edible portion conversion factor to convert from edible portions into full products as they are bought on the market.

After establishing the reference basket and possibly rescaling it, the basket is priced. This is done by multiplying the basket quantities by the food prices. The basket can be priced using current food prices from a price survey, or by estimating food prices from the expenditure data as described earlier. The result should be close to the expenditures for the reference cohort, although differences could arise from any rescaling or simplification of the basket.

In summary, to establish the food basket:

i. Calculate mean (median) food expenditures by food group or item. *If an explicit reference basket with quantities is not needed, stop here and simply use the expenditures as the food basket.*
ii. Estimate consumed quantities (by dividing expenditures by prices, or directly from data if it contains consumed quantities).
iii. Check the resulting quantities and consider scaling to meet Sphere Standards.
iv. Price the basket using market prices, or prices derived from the household data.

HOW TO

Box 6

APPROXIMATING A FOOD BASKET WITH GROUP-LEVEL FOOD EXPENDITURES

Data quality and granularity has a big impact on the calculation of a food reference basket. If consumed quantities are not directly available in the dataset, they need to be calculated by dividing expenditures by prices. However, this will always produce an approximation, and the more aggregated the data on expenditures is, the more approximate the results will be. In particular, when the food expenditure data is available at the food group level, care needs to be taken when converting expenditures into quantities:

For example, to convert expenditures on the food group "cereals" into a reference quantity, analysts need to divide cereal expenditures by the price of cereals. But how do they determine the price of cereals? This is a food group, not a specific item, so there is no exact price. The recommended way to approach this is to determine which is the most commonly consumed item or combination of items for each food group. Then a price for the most commonly consumed item, or a composite price of a combination of items, can be used to arrive at quantities. So if the most commonly consumed cereals for the population of interest are maize and rice, and they are eaten in equal measure by the population, the cereal quantities for the reference basket can be calculated in the following way:

- Mean cereal expenditures for our reference cohort = 150 shilling
- Price of rice = 18 shilling/kg
- Price of maize = 12 shilling/kg
- Composite price of rice and maize = (18 + 12) / 2 = 15 shilling/kg
- Cereal quantity consumed = 150 shilling / (15 shilling/kg) = 10 kg (5 kg rice, 5 kg maize)

Of course, this is an approximation; care needs to be taken when converting expenditures into quantities using group-level data.

Certain food groups may lend themselves more to this approximate conversion than others. For example, cereals might be relatively easy to convert using this method as cereal consumption often is concentrated on a few key staples. In contrast, vegetable consumption may be so diverse that conversion via prices is not helpful. In this latter case, one option could be to obtain reference basket quantities for the groups that can be converted and leave other groups as expenditures only, so that the food MEB becomes a combination of quantities and expenditures.

COUNTRY EXAMPLE

Box 7

KINSHASA: FOOD REFERENCE BASKET USING FOOD GROUP EXPENDITURES

In the Kinshasa urban essential needs assessment,[28] the food reference basket for the MEB was established as follows. Expenditure data was available at the food group level only. The caloric importance of each food group (column A of the table below) as a part of the overall food intake was determined. For each of the calorie-relevant food groups, the most commonly consumed food item was then identified (e.g. maize in the case of cereals) (see column B). Using the average per capita expenditure from the household survey (column C) and the market price for each food item (column D), the quantities consumed per person per month were approximated (column E). Next, the total calorie intake was calculated (column G). For urban Kinshasa, this amounts to 1,967 kcal, which is close to the Sphere Standard of 2,100 kcal/person/day and suggests that the expenditure data is likely to be reliable. However, a proportional rescaling to 2,100 kcal/person/day was done to ensure consistency with Sphere (column H). On the basis of the rescaled total calories, all values were then converted back to monthly figures to arrive at a monetary value for each food item (columns I and J). In addition to the calorie-relevant food items, the mean expenditures on other food categories that households regularly consume were added (vegetables, fruit, etc.). As these food items represent little overall share of people's calorie consumption (given the quantities consumed or the type of the foods), they were not included when calories were calculated. Furthermore, it would be difficult to select specific food items in each of these categories as they are quite diverse (e.g. vegetables). However, as most households still consume these food items as part of their usual diet and they provide important micronutrients, their costs need to be reflected in the food MEB. The mean expenditure on these food categories was therefore used as a good-enough approximation for households' consumption of these food groups. Meals consumed outside the household were excluded from the MEB, as they were not considered essential.

Table a. Food reference basket – Kinshasa MEB

Food group	Food item	per capita av. monthly exp.	Price (franc/kg)	kg cons. per month = C/D	food item kcal per 100g	kcal cons. per day =(E*F*10)/30	kcal per day rescaled =G*(2100/1967)	kg per month rescaled =(H/(F*10))*30	rounded MEB food-basket (franc)=I*D
A	B	C	D	E	F	G	H	I	J
Cereals	**Maize**	6,898	900	7.7	360	920	982	8.2	**7,400**
Tubers	**Cassava**	1,808	500	3.6	342	412	440	3.9	**1,900**
Pulses	**Beans**	2,089	1300	1.6	335	179	192	1.7	**2,200**
Oils/fats	**Veg. Oil**	2,341	2300	1.0	890	302	322	1.1	**2,500**
Meat/fish	**Fish**	4,306	2500	1.7	76	44	47	1.8	**4,600**
Sugars	**White sugar**	1,817	2200	0.8	400	110	118	0.9	**1,900**
Vegetables	Vegetables	2,826							**2,800**
Fruit	Fruit	833							**800**
Dairy	Dairy	799							**800**
Condiments	Condiment	2,509							**2,500**
Meals out-side home	Meals out-side home	2,144							
					TOTAL	**1,967**	**2,100**		**27,400**

[29] WFP, 2019. Also see box 5.

COUNTRY EXAMPLE

Box 8

COX'S BAZAR: FOOD REFERENCE BASKET WITH DETAILED EXPENDITURE AND QUANTITY

In the MEB for Cox's Bazar calculated as part of the REVA II assessment, expenditures and consumed quantities were available for 87 food items, which formed the basis for the consumption aggregate. While the expenditure data was used to select the appropriate reference cohort, the reported quantities were used to determine household calorie intake. Quantities were reported at the food item level and consumed calories were calculated for each item. The items were then categorized by food group (cereals, pulses, oils/fats, vegetables, etc.) and the total calories from each group were calculated. To create an operationally relevant reference basket without very large numbers of food items, the number of items in each food group were reduced where possible. For example, 95 percent of the calories that households get from the food group "cereals" come from rice. The cereal food group was therefore simplified to rice only, keeping the total calories sourced from cereals constant and adjusting the quantity of rice in the basket slightly upwards. For pulses, the four main consumed items were identified, and calories and quantities proportionally adjusted. For other food groups such as vegetables, the variety of items consumed within the group was too great to simplify items to a small number; for this group, no items were assigned and instead, total expenditures on vegetables for the reference cohort were used directly in the food MEB. The total calories of all items were taken into account. The resulting basket was close to 2,100 kcal so only minor rescaling was undertaken, to arrive at final reference basket of 2,100 kcal/person/day.
Once the final basket had been determined, quantities were priced using median prices derived from the household data (by dividing expenditures by purchased quantities for the relevant items).

Table a. Food reference basket – Cox's Bazar MEB

Food group	Food item	Consumed quantity *(grammes/capita/day)*	Calories *(kcal/capita/day) rescaled*	Median prices *(taka/kg)*	Value in MEB *(taka per HH/month)***
Cereals	Rice	424	1,527	30	1,909
Pulses	Lentil	14	48	80	168
Pulses	Chickpea	7	27	60	67
Pulses	Anchor daal	2	8	40	14
Pulses	Mung	1	4	80	13
Vegetables*	none	182	78	-	1,065
Fruit*	none	6	5	-	48
Meat*	none	81	85	-	1,600
Dairy*	none	1	1	-	15
Fats	Soybean oil	33	294	80	392
Sugar	Sugar	6	24	60	57
Condiments*	none	28	0	-	345
TOTAL FOOD			**2,100**		**5,691**

* *For vegetables, fruits, meat, dairy and condiments, expenditures are used directly in the food MEB (converted into monthly per household values). For all other items, quantities per capita per day are multiplied by the item median price (as derived from the household data) and converted into monthly per household values.*

** *The MEB uses household size 5.*

Note: *The MEB for Cox's Bazar was calculated for analytical purposes for the REVA II assessment. It is not the operational MEB used for the district*

4. Establish the non-food basket

Once the food component has been established, a non-food component is added. There is no wholly satisfactory way to add a non-food component as it can be difficult to define an essential minimum. Unlike food needs, many non-food needs are often more contextual and are not easy to anchor in a specific, universal threshold (like the food Sphere Standard of 2,100 kcal per person per day). While Sphere Standards exist, they often need to be contextualized and may not cover all non-food essential needs.

The non-food basket can be established with different levels of detail, depending on the available data and the level of granularity desired.

As for the food expenditures, start by calculating the mean (and/or median) non-food expenditures for the reference cohort. If the expenditure data is detailed, it can be used to identify specific non-food needs. Expenditures can be analysed by non-food group (e.g. shelter, hygiene or transport) to design a non-food basket composed of group-specific expenditures. The precise non-food components can vary by context but would generally include the components discussed in the section on the rights-based MEB below. Some non-food items that expenditure data has been collected for might need to be excluded for the purpose of constructing the MEB (e.g. tobacco, which is hard to consider an essential need).

In theory, it would be possible to establish a non-food reference basket with specific quantities using the same method as for food, i.e. by dividing expenditures by prices to arrive at quantities. However, this is usually not feasible for non-food goods and services, simply because non-food expenditure data is often much harder to break down into specific items than food expenditure data. For instance, even if expenditures on clothing or transportation are known, relating this to exact clothing items or transportation services and then obtaining accurate prices for those items/services will often prove difficult if not impossible. Therefore, as a general recommendation in the expenditure-based approach, when non-food expenditure data is not available at the item level, it is best to keep the non-food basket to expenditures and not provide quantities. If reliable market price information on relevant non-food items is available, total expenditures could be checked against prices to obtain an approximate idea of the adequacy of the non-food expenditures.

Particular groups of non-food expenditures may require special attention due to their nature. Box 9 highlights a few examples.

TIP BOX

Box 9

NON-FOOD EXPENDITURES – EXPENDITURES OF PARTICULAR INTEREST

Shelter expenditures can be a tricky component to deal with, especially for urban populations. If the share of the population who rent accommodation is significant, rent will typically be included in the MEB as it is the cost of shelter, an essential need. Indeed, it can form quite a significant part of the MEB. However, if the resulting MEB is compared to actual expenditures to determine whether households fall below the MEB, those who own their dwelling and therefore do not pay rent might be classified as unable to cover their needs just because they do not have any major shelter expenditures. Therefore, large single expenditures such as rent should be included with care and context will determine how shelter expenditures are handled in the MEB. Generally speaking, if no or very few households in the population of interest have major shelter expenditures such as rent, this component should be left out of the MEB and no attempt made to impute it (as is sometimes the case in poverty line estimations). If the majority of households rent their dwellings, it is advisable to include mean rent expenditures in the MEB. The trickier case is when the households in the population of interest are split between a significant number of households living in owned or no-rent housing and a significant number paying rent – here, it is difficult to reflect shelter expenditures adequately in the MEB. Simply using mean rent estimations in the MEB will underestimate the need for the renters while overestimating it for those who own their housing or do not pay rent. In this case, insofar as data allows, one solution could be to impute rent expenditures for the non-renters by estimating the would-be rental cost for the type of housing they live in. Doing this typically requires a housing module in the household survey that contains information on ownership and types and sizes of housing so rental equivalents can be computed and imputed for the non-renters.

Box 9
NON-FOOD EXPENDITURES – EXPENDITURES OF PARTICULAR INTEREST

Health expenditures can also be challenging to capture adequately in survey data as such expenditures are often irregular in nature. Bear in mind that health expenditures usually consist of payment for goods such as medicines and for services such as visits to the doctor. When analysing the expenditures and deciding how to include them in the MEB, consider which services may be provided free of charge and what households pay themselves and at what cost.[30]

Care should be taken when it comes to the underreporting of expenditures and treatment of expenditures that are irregular in nature. Remember that the MEB should include all recurrent essential needs but it typically **does not include one-off expenditures, "lumpy expenditures"** such as marriage expenditures or dowries, **or investments**. Expenditures on durables (for instance, the purchase of vehicles or large household appliances) are also not included (in national poverty lines the rental value of the durables owned by households adjusted for depreciation is sometimes included;[31] however, this is not recommended for MEB calculations).

Household expenditures on **savings, taxes** and **debt repayment** are not usually included in the MEB, as these types of expenditures do not reflect actual consumption.

Tobacco and alcohol are often included in expenditure surveys. While households may choose to spend money on these items, they can fairly be assumed to be non-essential and are generally not recommended for inclusion in the MEB.

The "quick fix" if data is very limited. If the expenditure data has no or very insufficient data on non-food expenditures, a "quick fix" solution is to use the average non-food expenditure share of total expenditures. This can often be obtained from external sources such as monitoring reports or food security assessments. This is then added to the cost of the food basket to arrive at the total MEB. However, when using an additional data source, analysts should understand how the average share of non-food expenditures has been calculated and what sample it has been derived from, as it may not reflect the consumption patterns of the reference cohort.

COUNTRY EXAMPLE

Box 10
EXPENDITURE-BASED NON-FOOD REFERENCE BASKET, EXAMPLE FROM COX'S BAZAR

Table a. Non-food basket – values. Cox's Bazar

Non-food group	Value in MEB *(taka/HH/month)*
Toiletries and cleaning	461
Clothes, shoes and towels	521
Cooking equipment	25
Education	134
Fuel and electricity	775
Medical treatment	447
Household textiles and small repairs	57
Communication	274
Transport	295
Total non-food	2,990

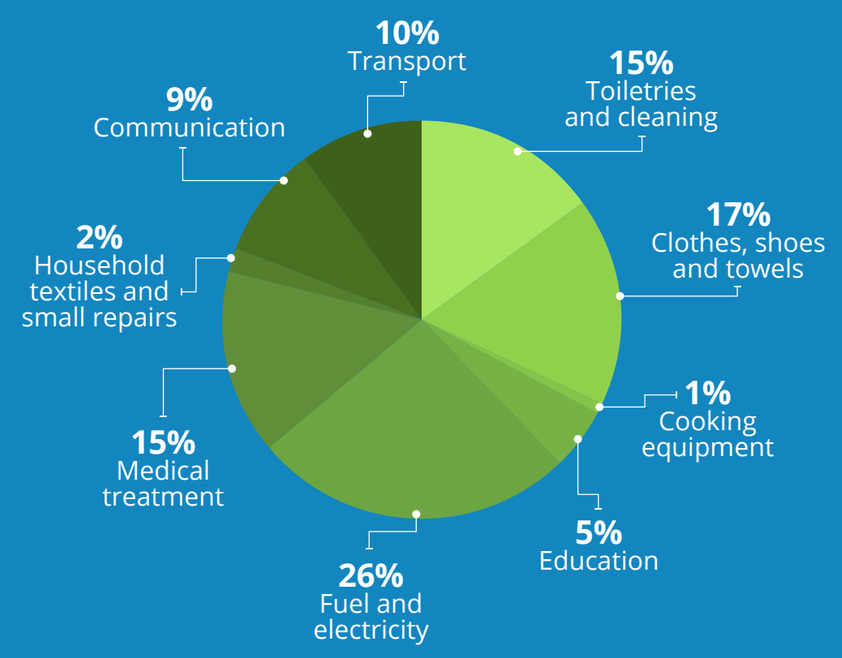


Figure a: *Non-food basket – distribution. Cox's Bazar*

Note: *The MEB for Cox's Bazar was calculated for analytical purposes in the REVA II assessment. It is not the operational MEB for the district.*

[30] The WHO and Global Health Cluster guidance on health expenditures in the MEB has some useful insights into household health expenditures. See WHO and Global Health Cluster – Cash Task Team, 2020.
[31] Deaton and Zaidi, 2002.

5.2 The rights-based approach

In humanitarian contexts, "essential needs" have been understood as referring to access to full rights as set out by international humanitarian law and the Humanitarian Sphere Standards. The term "rights-based MEB" is derived from this understanding. According to the operational guidance on multipurpose cash grants,[32] international humanitarian and human rights law protects the right of crisis-affected persons to food,[33] drinking water, soap, clothing, shelter and lifesaving medical care. Humanitarian Sphere Standards builds on this definition and outlines minimum humanitarian standards in the areas of food security and nutrition, shelter and settlement, health and WASH (water supply, sanitation and hygiene).[34] In some contexts, residency or legal documentation is also included. Humanitarian standards for education are outlined in the *Education in Emergencies Minimum Standards Handbook*.[35]

The rights-based approach entails defining a detailed list of the food and non-food items that make up the MEB reference basket and pricing them using current market prices. MEBs built by the Interagency Cash Working Group or other interagency coordination forum are often constructed following the rights-based approach, with each sector or cluster contributing to the needs in their respective sectors. In these cases, WFP is usually responsible for defining the food component of the MEB. For both food and non-food items, the reference basket is typically produced or cross-checked through focus group discussions with the population of interest, partners and key informants. It is usually put together based on the needs of an average-sized household.

1. Establish the food basket

To construct the food basket for a rights-based MEB, compile a list of food items and their quantities. The Sphere Standards offer a useful starting point, recommending a diet of 2,100 kcal per person per day, with 10–12 percent of daily energy intake from protein and 17 percent from fats.[36] The food basket should be adapted to local diets and preferences.

2. Establish the non-food basket

Once the food basket has been established, a non-food basket should be added. In the rights-based approach, this is typically done by quantifying needs by producing a list of items by sector. Some examples are found below.

Shelter: This is the cost of accommodation that meets basic shelter needs and rights. What this means in practice will depend on the context, driven for example by weather conditions and what is realistically available to the population.

E.G.

Box 11

SHELTER IN THE MEB FOR SYRIAN REFUGEES

COUNTRY EXAMPLE

For the Syrian refugee operation in Turkey, the MEB includes the costs of shelter that meets certain standards, such as a minimum of 3.5 m2 per person, access to a toilet and running water.

Utilities: These include the cost of basic utilities such as safe drinking water and, depending on the context, electricity.

Non-food items: These reflect basic household needs related to cooking, clothing and hygiene, plus other general household items. Cooking gas/fuel or firewood is often included. In line with the definition of the MEB, the list should focus on recurrent needs. In practice, these non-food items can look very different depending on the context. [38]

Services: This includes the costs of accessing basic services such as healthcare, education, transport and communication.

- Healthcare costs are often difficult to quantify since they are inherently irregular, large and unpredictable. Typically, however, only basic minimum needs are covered in the MEB such as e.g. two visits per year to the doctor; expenses for critical events, deliveries, and medicines are sometimes also included. Note that even if a need is not covered by the MEB, it does not mean that these needs do not need to be met for the population of interest. Health can be an example of this: health needs are often better met through service provision than purchased through the market and therefore may be only partially reflected in the MEB. However, guidance from WHO and the Global Health Cluster notes that people tend to have some level of health expenditures, even when

[32] UNHCR et al, 2015.
[33] Defined as energy needs, not considering full nutrient needs (protein, vitamins, minerals, etc).
[34] See the Sphere Standards Handbook.
[35] INEE, 2010.
[36] Further recommendations on micronutrient requirements can be found in the Sphere Standards Handbook.
[37] Hobbs, 2016.
[38] For some refugee contexts, the Office of the United Nations High Commissioner for Refugees (UNHCR) has lists of specific items which can be considered for the MEB.

policies are in place that require the free public provision of health services.[39]

- Education costs usually cover school fees, materials, uniforms and transport, depending on what households have to pay themselves and what is publicly available.
- Transport and communication needs are often defined as the average transport and communication costs reported by household surveys and then validated with the communities; communication needs can also be specified as the cost of a SIM card with a certain amount of data or airtime.

3. Price the reference basket

With the food and non-food reference baskets established, the list of items and quantities are now priced using updated prices from markets relevant to the population of interest. The pricing should be done based on actual current market prices. This produces the final rights-based MEB.

COUNTRY EXAMPLE

E.G.

Box 12

EXAMPLE OF A RIGHTS-BASED MEB FOR NORTHEAST NIGERIA

The northeast Nigeria cash working group designed a MEB for a household of seven people;[40] the resulting reference basket is shown below.

Table a. MEB example northeast Nigeria

Sector/ group	Item	Quantity *(7 pers HH)*	Sector/ group	Item	Quantity *(7 pers HH)*
Food	Rice	27 kg	Cooking fuel	Firewood/briquette/ charcoal	1 bag
	Maize	45 kg	WASH	Water + vendor fee	158 jerrycans
	Beans	13.5 kg		Bathing soap	13 bars
	Palm oil	1.8 L		Laundry soap	3 bars
	Groundnuts	2.7 kg		Sanitary pads	4 packs
	Sugar	1.8 kg	Cooking fuel	Firewood/briquette/ charcoal	1 bag
	Vegetable oil	3.6 L	WASH	Water + vendor fee	158 jerrycans
	Salt	0.9 kg		Bathing soap	13 bars
	Onion	1.44 kg		Laundry soap	3 bars
	Non-leafy vegetables	2 kg		Sanitary pads	4 packs
	Leafy vegetables	2 kg	Transportation	Rides	10 rides
	Fruits	1 kg	Communication	Airtime 500 NGN	1
	Meats	0.5 kg	Health	Average expense	7 pers
	Chicken eggs	12pcs	Education	Pen	3 pcs
	Vinegar	1L		Pencil	3 pcs
				Notebook	3 pcs

[39] WHO and Global Health Cluster – Cash Task Team, 2020.
[40] Cash Working Group Nigeria, 2018.

5.3 Summary and data needs for expenditure–based and rights-based approaches

Box 13 summarizes the steps to follow in order to construct a MEB using an expenditure-based or a rights-based approach.

HOW TO

Box 13

MEB APPROACHES – CONSTRUCTION SUMMARY

Expenditure-based approach

1 **Prepare the expenditure data**
Ensure the data is cleaned. Compute expenditures by combining cash and credit expenditures, the value of consumed own production and consumed assistance, for both food and non-food expenditures. Compute expenditures as per capita figures.

2 **Select the reference cohort**
Identify households "just able to meet their essential needs" using indicators such as FCS, FCS-N, housing or others, excluding households in extreme quantiles of expenditure distribution, or other criteria or combination of criteria. Check the sensitivity of the results to the selection of reference cohort.

3 **Establish the food basket**
Calculate mean (median) food expenditures by food group or item. Either stop here or – to obtain a refence basket – estimate consumed quantities, check the calorie content of the resulting quantities and consider scaling them to Sphere Standards. Price the basket using market prices or prices derived from the household data.

4 **Establish the non-food basket**
Calculate mean (median) non-food expenditures by non-food group or item. If item-level data and prices are available, it is possible to derive a non-food reference basket using same methodology as for the food basket; otherwise the non-food basket will comprise the expenditures at the group level. If a quick-fix solution is needed, add the average household non-food expenditure share to the food MEB.

Rights-based approach

1 **Establish the food basket**
Define a list of relevant and locally preferred and available food items and their quantities. The Sphere Standards can be used as a reference.

2 **Establish the non-food basket**
Define a list of essential non-food items relevant to the population of interest and their quantities. Services such as education or transport can also be included. The list is usually put together sector by sector.

3 **Price the basket**
Use current market prices for the food and non-food items in the reference baskets to calculate the price of the basket. Use prices from markets relevant to the population of interest.

HOW TO

Box 14

INFORMATION NEEDS AND SOURCES, MEB APPROACHES

Information need	Suggested sources	Expenditure–based	Rights–based?
Qualitative understanding of essential needs for the population of interest	■ Focus group discussions with key informants or population of interest ■ Literature review of existing information on the essential needs of the population of interest		✓
Representative household survey with detailed expenditure module	■ WFP essential needs assessment, emergency food security assessment or comprehensive food security and vulnerability analysis or other representative, pre-assistance baseline survey ■ National household budget surveys, household income and expenditure surveys, living standard measurement surveys or other large-scale household survey	✓	
List of "rights-based" needs	■ Clusters, Cash Working Group, other interagency forum ■ Sectoral assessments, other secondary information		✓
Price information	■ Price data series covering the area of interest for relevant food and non-food items and services from WFP (Dataviz[41] has up-to-date price information) or partners ■ Price indices from national statistical offices ■ Prices derived from household expenditure data where quantities are also reported	✓	✓

TIP BOX

Box 15

WHAT IF DATA USING A HOUSEHOLD ECONOMY APPROACH IS AVAILABLE?

The household economy approach (HEA) developed by Save The Children is commonly used for analysing food security and livelihoods. It is based on understanding how households normally access income, food and other items/services required for survival, established through a baseline analysis. As part of the baseline, the HEA defines livelihood zones where households share similar strategies for obtaining food and income. It also distinguishes households within these livelihood zones in at least three (often four and sometimes more) wealth groups. The HEA baseline quantifies the sources of food and income and the expenditure patterns for each wealth group and livelihood zone.

The information collected on expenditures can be used as a data source for calculating a MEB. However, due to the relative nature of the wealth cut-off points used, there is no set standard regarding which group should be the reference for the MEB. If HEA data is utilized, it is important to understand how it was collected – the HEA is simply an analytical framework, not a set method of data collection. Thus, while HEAs are often conducted through qualitative methods (e.g. focus group discussions), they may also be based on quantitative modules in household surveys. The latter yields more rigorous information; however, qualitative data can be used but should be cross-checked or triangulated with other sources.

[39] See VAM data portal at https://dataviz.vam.wfp.org/.

5.4 Expenditure-based or rights–based approach? Pros and cons

There are advantages and disadvantages to both types of approach, which should be kept in mind when constructing the MEB.

The **expenditure-based approach** has the advantage that it directly reflects the actual demand of the population of interest as it uses survey data to examine people's consumption behaviour. It is also fairly straightforward to carry out if good survey data on the population is available. One disadvantage is that it can be difficult to put into practice when the population of interest is generally poor (such as in a pre-assistance refugee situation), because the number of households who can constitute the reference cohort can be too small to analyse. Also, care has to be taken when looking at expenditure patterns only, as the reference cohort may not always cover all of their essential needs to a desired level (from a "rights" perspective). For example, the food patterns for those "just able to meet their essential needs" may not always be very nutritionally diverse as they are based purely on consumption behaviour.[42]

In general, the expenditure-based approach should not be applied without good quality household expenditure data.

The advantage of the **rights-based approach** is that it can be used to construct a MEB without survey data (although survey data is needed to monitor the MEB). One disadvantage is that the effective demand of households can look quite different from the basket that results from this approach. Another disadvantage is that, particularly when constructed in an interagency setting, a rights-based MEB can easily become an instrument for different partners to compete for and secure funding. There is a substantial incentive to include excessively high sectoral needs if sector-specific interventions are envisaged. Finally, if the MEB is very detailed but the expenditure module in the household surveys used to monitor people's expenditures against the MEB is very crude, comparison is difficult and therefore the practical use of the MEB can be limited. Many households may fall below the MEB simply because of the discrepancy in methods between the MEB and the monitoring data. This is similar to the issue previously discussed regarding the use of national poverty lines.

Box 16 summarizes the advantages and disadvantages of the two approaches.

TIP BOX

Box 16

ADVANTAGES AND DISADVANTAGES OF DIFFERENT APPROACHES TO ESTABLISHING MEBS

	Expenditure-based	Rights-based
Pros +	■ Straightforward to carry out if household data is of good quality ■ Builds on actual consumption patterns of the population of interest	■ Survey data is not needed
Cons –	■ Difficult to identify reference cohort if everybody is poor ■ Survey data may not capture all essential needs fully from a "rights" perspective	■ Effective demand can be different from identified needs, leading to a MEB that does not reflect actual demand and making comparison with monitoring data tricky ■ Contains incentives to inflate sector-specific needs

[42] A study conducted in Nepal showed that the food poverty line is well below the so-called "nutrient poverty" line (see Geniez et al, 2014).

6 Arriving at a realistic and operationally relevant MEB

Regardless of which processes and approaches are used to construct the MEB, it is crucial to arrive at a final result that is a **realistic picture of the cost of essential needs for the population of interest, rooted in actual consumption behaviour**. This section looks at how approaches can be combined to generate a hybrid MEB and how the result can be "reality checked" and validated.

6.1 Combining approaches: the hybrid MEB

As described in section 5.4, there are disadvantages to the expenditure-based and the rights-based MEB approaches that can affect the final MEB. One way to overcome this challenge may be to **combine information from each approach in a "hybrid" MEB**. This means making sure that the MEB is consistent with the actual consumption behaviour of the population of interest as found in expenditure data, while keeping the rights-based lens. There is no one way to go about this; the method is subject to the availability of expenditure data and other information on essential needs, as well as the objective of the MEB.

When good quality expenditure data with a large enough sample size is available for constructing the MEB, it is good practice to use the expenditure-based approach as a basis for the analysis, as far as possible. If the expenditures of the reference cohort are subsequently found not to reflect the costs of covering certain essential needs for the population of interest, rights-based information should be used to reinforce the MEB with a hybrid model. If expenditure data is not available and cannot be collected, a rights-based MEB can be constructed but should be cross-checked against any available household-level information on consumption patterns.

The key to constructing a hybrid MEB lies in **triangulating information** and **asking the right questions** during the analysis. When constructing a MEB, consider the following:

When starting with the construction of an expenditure-based MEB:

Did the household survey capture all essential needs, or are some not included in the data at all?

- If some needs are wholly overlooked, consider using rights-based information to capture them but ensure these needs are actually in demand by the population of interest and only missing because the survey did not capture them.

Are the expenditures that are typically trickier to capture well reflected and are the reference cohort's expenditures on them adequate from a rights-based perspective?

- For example, if education expenditures are completely inadequate for the reference cohort (and this is not because the reference cohort selected is "too poor"), consider using rights-based information to capture them, e.g. by using the cost of school fees or school supplies like books or uniforms.

- Be particularly careful with the inclusion of needs where the supply of goods or services is far from adequate or may be inexistent. The MEB needs to ultimately reflect consumption behaviour, so adding goods or services that are not available to the population of interest, or not in demand, will lead to an unrealistic MEB.

When starting with the construction of rights-based MEB:

Are the identified needs in line with the actual consumption patterns of the population of interest?

- Check the reference baskets against any available information on demand and consumption and adjust items and quantities to reflect actual consumption patterns. This could be done using data on consumption shares by food group and non-food group, for example.

Are there needs that people consider essential and choose to spend resources on but are not captured by any sector?

- Check the reference baskets against any available information on demand and consumption and adjust items and quantities to reflect actual consumption patterns.

Box 17 contains examples of hybrid MEBs constructed in different contexts.

COUNTRY EXAMPLE

Box 17

HYBRID MEBS IN URBAN SETTINGS IN KINSHASA, THE DEMOCRATIC REPUBLIC OF THE CONGO AND FOR SYRIAN REFUGEES IN TURKEY

For the MEB calculated as part of an **urban assessment in Kinshasa**,[43] a hybrid approach was chosen to deal with hard-to-capture but essential expenditures such as health and education. Health costs are often difficult to estimate as they are not regular and when they do occur, they often make up a large share of monthly expenditures. The analysts decided to estimate health costs through a rights-based approach instead of using expenditures from the survey. Qualitative information from key informants was used to define the cost of one doctor's visit per year for each household member. In each commune, the median cost was between CDF5,000 and CDF6,000 per visit; this was represented in the MEB as CDF500 per household member per month. Over-the-counter medication was also included as part of health-related expenditure through the addition of a per-capita expenditure of CDF1,500 every two months, sufficient for a course of antimalarial drugs or antibiotics and simple medication such as painkillers or anti-inflammatory drugs.

In **Turkey**, expenditure and price data from different sources was used to assess, update and adjust an existing rights-based MEB[44] for Syrian refugees living in the country. A hybrid food basket was calculated using detailed information on the consumption behaviour of Syrian refugees in Lebanon collected through itemized receipts from food assistance e-cards. The resulting food basket was triangulated with the less detailed information available from a household survey on Syrian refugees in Turkey. The results showed strong consistency between consumption behaviour of both groups.

The resulting food reference basket for the MEB was then priced with official price statistics data and inserted into the rights-based MEB. Quantities of non-food items were kept as before but updated with current price data. To ensure that the MEB reflected consumption behaviour, expenditure shares were triangulated with household data. See table a.

To value and update the MEB, price data was required. The official price statistics included higher quality items and brands consumed more by the average Turkish population than by the poorer refugees. To correct for this, the difference between the price of the MEB and the food expenditures of a non-poor cohort were assessed, and a correction factor applied to compensate for the overestimation of the updated MEB.

Table a. Food reference basket – MEB for Syrian refugees in Turkey

Commodity	Old referential food basket		Revised Turkey food basket	
	Daily ration per person in gram	*Daily kilocalorie*	*Daily ration per person in gram*	*Daily kilocalorie*
Rice, white, medium grain	150	540	100	360
Bulghur wheat	200	684	50	171
Pasta	50	186	0	0
Egg, whole, chicken, fresh	20	29	70	100
Poultry	30	65	0	0
Beans, dried	40	137	50	170
Cucumber	20	0	30	0
Cheese, canned	8	28	50	178
Sugar	30	116	50	194
Oil, sunflower, fortified	30	265	25	221
Salt, iodised	5	0	5	0
Bread made from wheat	0	0	250	675
Yoghurt, whole milk (leban)	0	0	50	31
Tomatoes, red, ripe	0	0	30	5
Tea, black, nutrients per 100ml of brewed tea	0	0	5	0
	Total Kcal	**2,050**	**Total Kcal**	**2,104**

[43] WFP et al, 2018.
[44] WFP, 2018.

6.2 Reality checks and validation with stakeholders

In addition to asking the right questions of the data as described in the previous section, it is crucial to **reality check results** when constructing the MEB. This means understanding whether the MEB provides a picture of the cost of living that matches the reality on the ground.

First of all, it is important to check the MEB result with the real circumstances of the population of interest. Focus group discussions and/or key informant interviews can be held when starting work on the MEB and after a result is obtained, in order to ensure that the MEB is a true reflection of needs and priorities.

The MEB figures can be compared with the national poverty line – even if it is not advisable to use the poverty line directly as the MEB, it is good practice to check the MEB results against it. They can also be checked against any social assistance transfer values provided in government programmes, the minimum wage or the casual labour rate, or any other information available about needs and cost of living. For instance, if the MEB is much higher than what the wages from one month of work for a typical household can buy, that could indicate that it needs adjustment and that some of the analytical steps need to be revisited – as long as the wage rate itself is reasonable. The same goes for the poverty line – if the two are very far apart, it could be a sign that the MEB analysis should be crosschecked. Perhaps the reference cohort was not adequately selected, some sectoral needs were overestimated or there is a large proportion of consumption of own production has not been properly taken into account.

Something that is often of particular interest is the nutritional composition of the food part of the MEB. As seen above, MEB construction typically starts from the Sphere requirement of 2,100 kcal/person/day. However, since the MEB follows the actual consumption behaviour of the population of interest (especially when following an expenditure-based approach), the resulting food basket reflects what households actually eat, which is not necessarily a nutrient adequate diet. If the basket is found to be very low in essential nutrients, it could be that the reference cohort was not well selected and a wealthier cohort with a more balanced diet at the 2,100 kcal/person/day threshold might need to be identified.[45] However, selecting better-off households will not necessarily lead to a more nutritionally balanced basket, as food preferences are influenced by a range of factors in addition to budget.

Analytical tools to determine the cost of nutritious diets include Cost of the Diet (CotD) developed by Save the Children UK and used by WFP in the Fill the Nutrient Gap Analysis. CotD uses linear programming to establish the lowest cost diet that can meet requirements for energy, protein, fat and 13 micronutrients for individuals in a population, considering age, gender, body weight, physical activity level and whether a woman is pregnant or breastfeeding. CotD can be thought of as the lowest cost of an optimal diet considering individual requirements. It is therefore useful in illustrating the needs of vulnerable populations and their nutrient intake barriers. However, it is important to keep in mind that a MEB food basket may not deliver adequate nutrient intake when used to set a transfer value for households, even if aligned with an optimal diet. As noted above, because of household consumption choices and food allocation within households, having more money to spend may not necessarily lead households to buy more nutritious food.

It is important to check the MEB result with the real circumstances of the population of interest. Focus group discussions and/or key informant interviews can be held when starting work on the MEB and after a result is obtained, in order to ensure that the MEB is a true reflection of needs and priorities.

MEBs should be first and foremost built on consumption patterns that reflect actual behaviour. A large difference in cost between the MEB food basket and CoTD may hence be driven by factors such as low availability/high cost of nutritious foods or household preferences. The WFP technical note on Fill the Nutrient Gap and minimum expenditure baskets offers further insights into the complementarities of the two analyses and how to use them on conjunction for programming purposes.[46] When a MEB is operationalised, additional nutritional considerations could be necessary

[45] Note that the 2,100 kcal Sphere Standard for daily diet is an estimate based on a population average. Nutrient needs vary across the lifecycle. It is also recommended that a food basket based on the 2,100 kcal threshold should include a minimum of between four and five different food groups.
[46] Also see WFP, 2020b.

depending on the objective of a particular intervention and the choices targeted households are likely to make regarding food and nutrition once they receive a transfer. Targeted nutrition interventions may be needed, such as providing certain nutritious foods for specific groups (through in-kind assistance or commodity vouchers) and social behavioural change communication to nudge people towards making better choices for health and nutrition.[47] Expenditure data can be helpful to understand the consumption patterns of people at different points of the wealth distribution. Fill the Nutrient Gap analysis also examines packages of blanket and targeted household interventions to estimate the most cost-effective way to address the nutrient requirements of different target groups. For further considerations, including complementary programming, please consult the WFP interim guidance on transfer values.[48]

MEBs are often constructed in an interagency context, such as the Cash Working Group, which helps facilitate **dialogue and validation** from the beginning of the process. However, sometimes not all clusters or key partners are engaged in such forums, which can limit the buy-in and understanding of the MEB unless there is adequate consultation. It is also essential to consult government stakeholders and development partners. Endorsement by government counterparts could be needed if there are existing government safety nets or policies regarding minimum wages. For example, if the population of interest for the MEB are refugees or IDPs and a transfer value based on the MEB is higher than the social assistance provided by the Government to the resident population, this could be a point of contention. Development partners might also wonder why a MEB is needed in addition to the national poverty line. Dialogue and validation of the final MEB with partners is therefore vital.[49]

Box 18

TURKEY NON-FOOD BASKET: MEB COMPOSITION VERSUS ACTUAL CONSUMPTION

COUNTRY EXAMPLE

In the original, rights-based MEB constructed for the Syrian refugee operation in Turkey, 17 percent was devoted to education expenditure. The average education expenditure share in the pre-assistance expenditure data was under 2 percent, with little variation by household vulnerability status.[50] The large expenditure share in the MEB reflects the costs for transportation to schools in rural areas where no buses are available and where the only way for households to send children to school is to hire private transport. In order to provide for children's right to education, the transport costs are counted for in the MEB.

Since the MEB was constructed to assure full access to all rights, the high education expenditure was justified. However, a comparison of the theoretical costs for basic needs as estimated by humanitarian partners and the actual consumption choices of households can reveal divergence. Even if households are assisted, there is nothing to say that they will actually start hiring private transport to get their children to school, i.e. the principal "need" identified by humanitarian actors will not necessary translate into effective demand if the MEB is used as a basis for transfer value calculations. While an important access problem has been identified, other complementary interventions will likely be needed to address it.

47 The Fill the Nutrient Gap (FNG) analysis, of which CotD is often part, can help understand what programming might be needed and how interventions can be combined to improve dietary intake and reach food and nutrition objectives.
48 WFP. 2020c.
49 The Cash Learning Partnership's MEB Tip Sheet contains useful advice on the interagency processes around constructing a MEB. Baizan and Klein, 2019
50 Hobbs, 2016; and WFP, 2018.

7 Accounting for household composition and economies of scale

Naturally, the needs of a household increase with the size of the household. How can the different magnitude of needs for households of different sizes be taken into account when constructing the MEB?

One simple approach is to calculate the per capita MEB and simply scale it up for households of different sizes. For example, if the MEB is constructed for a household of six and equals USD 120, the per capita MEB would be USD 20 USD, and the MEB for a household of three people would be USD 60.

However, this proportional scaling ignores one important factor: while the needs of a household grow with each additional member, the increase may not be proportional. This is because some goods consumed within a household, such as food, are "private" in character – once a person has consumed it, no one else can consume the same – while other goods such as housing are "common" or "public", meaning they can be shared among household members. Hence, the needs for housing space or electricity are not necessarily three times higher for a household with three members than for a single-person household. This is called **economies of scale**. Changes in **household composition can also influence how needs grow with household size**: consider large households with many children, who do not have the same needs as adults.

Economies of scale are particularly relevant in contexts where shared goods constitute a major part of household essential needs, for example where rent payment is a large expense. A one-bedroom apartment may be necessary for a one-person household but could also possibly house a family of three, who would then share the expenditure. **When, in a context of large economies of scale, the MEB is adjusted to household size by scaling up average per capita needs proportionally to household size, the resulting MEB will underestimate the needs for small households and overestimate the needs for large households by *construction***. This is because the per capita needs for small households are larger than this simple scaling reflects. This can have implications if the per capita MEB is used to inform targeting or transfer value calculations. For instance, if the needs of smaller households are underestimated, they are more likely to be miscategorized as being able to meet their essential needs and might therefore not receive the assistance they require.

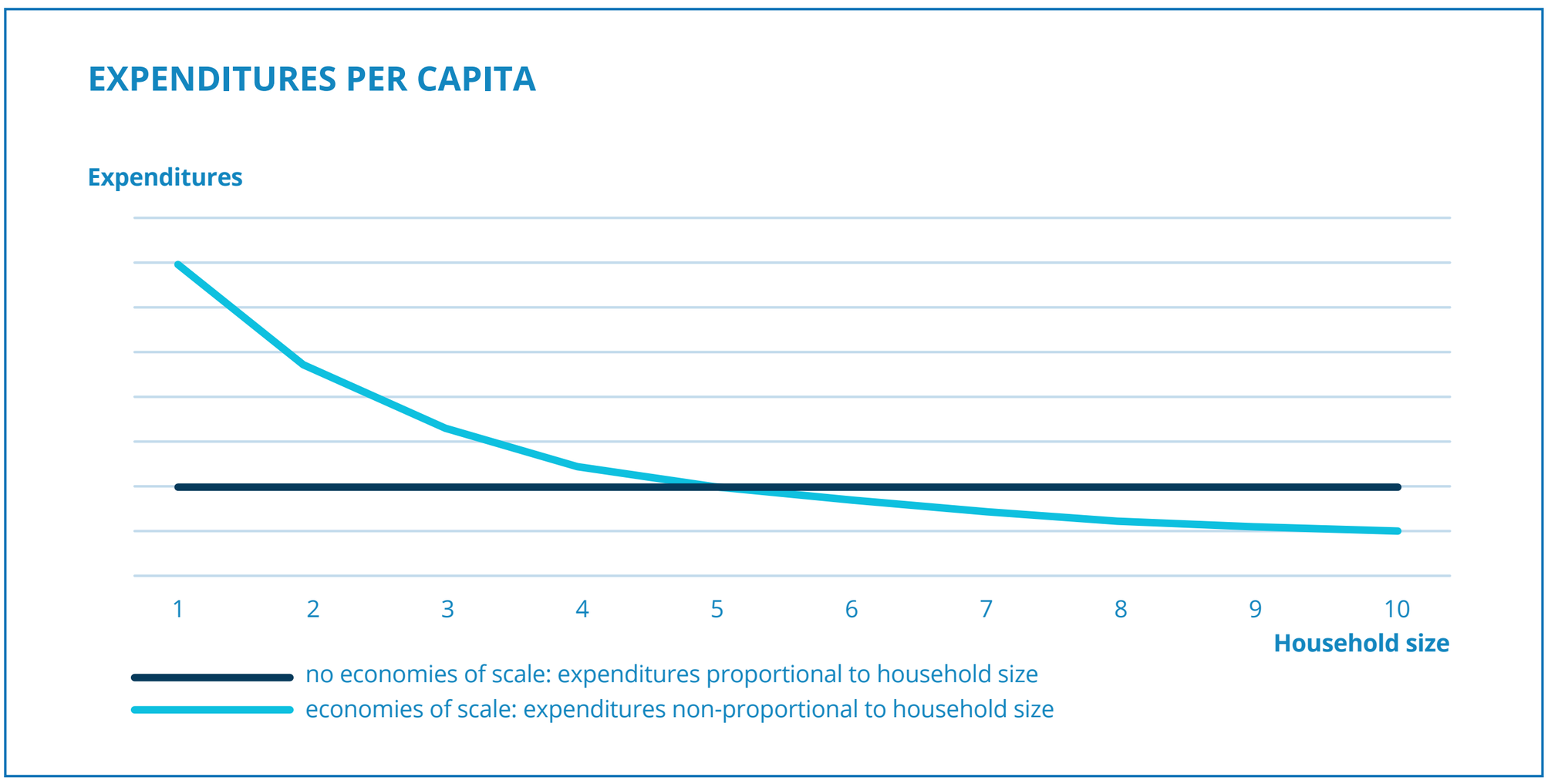


Figure 3. Economies of scale and expenditures per capita – illustration of the concept

In other contexts, economies of scale might be smaller because of the higher relative importance of "private" goods such as food and certain non-food items (for example, soap), or if shared costs such as shelter are not prominent. How household size is catered for in the MEB ultimately depends on context and how needs are related to household size. Some suggested steps to account for economies of scale and household composition are listed below.

When examining how to account for different household sizes in the MEB, start by ascertaining whether economies of scale exist and to which extent.[51] Figure 3 provides a hypothetical illustration of two extreme cases; no economies of scale at all and strong economies of scale. If there are no or little economies of scale, the per capita expenditures will be very similar across household sizes, while they will decrease by household size if economies of scale are present.[52] Plotting per capita expenditures against household size helps enable for this type of examinations. It can be useful to further disaggregate the analysis into different categories (for instance, food, non-food, or shelter expenditures per capita) to understand which expenditures might be driving the economies of scale, if present.

Box 19 illustrates two different country examples: expenditures by household size for Syrian refugees in Lebanon and for vulnerable populations in Cox's Bazar, Bangladesh. In Lebanon, where shelter plays an important role, household expenditures double only at a household size of 5, and they triple at a household size of 11.

COUNTRY EXAMPLE

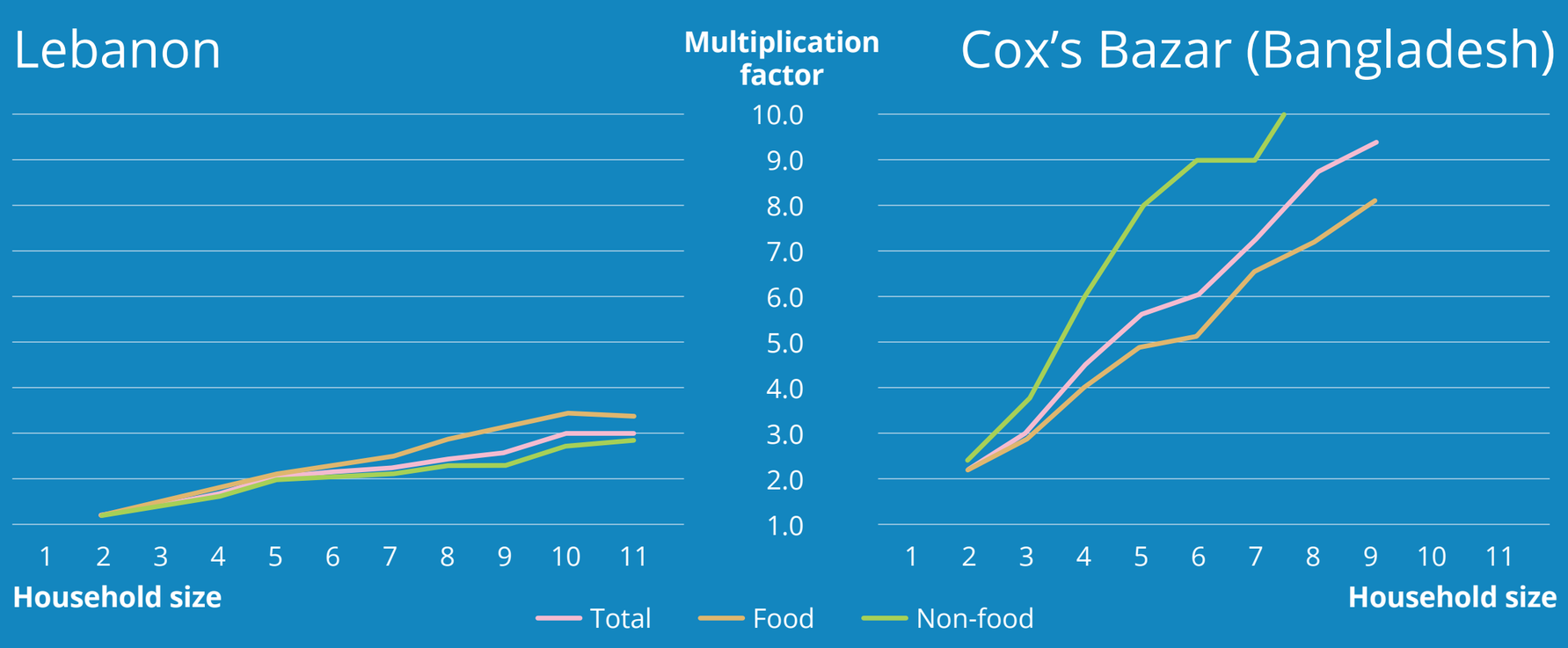
Box 19

ECONOMIES OF SCALE IN LEBANON AND COX'S BAZAR

Figure a shows expenditures by household size compared to one-person households. For **Syrian refugees in Lebanon**, average expenditure doubles only when the household size reaches five and it takes 11 members to triple the expenditures of a one-person household. The economies of scale are therefore large, primarily due to the importance of shelter costs for the refugees.

In **Cox's Bazar**, in contrast, total expenditures grow almost proportionally with household size (double at a two-person household, triple at a three-person household). Slight economies of scale can be seen for food. For non-food expenditures, larger households even spent more per person. From this data, the economies of scale seem to be small

Figure a: Increase in household expenditure by household size compared to one-person households.



Note: *Figure based on authors' calculations. Data from the Vulnerability Assessment of Syrian Refugees in Lebanon (VaSyr) 2017, and the Refugee influx Emergency Vulnerability Assessment (REVA II) 2019*

[51] Expenditure data is required to perform this analysis. If no information on expenditure exists, information on how needs change with household size can be collected through qualitative means such as focus group discussions or key informant interviews.

[52] Theoretically, it is possible to also analyse expenditures by household composition, but sample sizes rarely allow for such detailed disaggregation.

Even for food, strong economies of scale can be detected which could be a result of large households being able to buy food in bulk at a lower price. However, in Cox's Bazar, where shelter and other shareable non-food goods are of less importance, household expenditures are close to proportional to household size.

If the analysis reveals small economies of scale or none at all, it is reasonable to use a per capita approach to scale up the MEB proportional to household size. If significant economies of scale are present, it is important to think about how to take this into account when constructing the MEB. Here are some suggestions.

- One possible solution (in the expenditure-based approach) is to disaggregate (or re-select, see below) the reference cohort for each household size sub-sample, and using the expenditures for each of these cohorts, construct specific MEBs for each household size.[53] This approach takes into account economies of scale by looking directly at the specific needs of different size households but only reflects average differences in household composition within each household size. The approach will most likely suffer from very small sample sizes once analysis needs to be performed by household size. If this is the case, household sizes could be grouped into categories so that the analysis uses sub-samples, e.g. for household sizes 1–2, 3–5 and 6–8, etc. or other groupings meaningful for the context. When following this approach, bear in mind that if the reference cohort is selected based on expenditure distribution characteristics, such as the removal of extreme deciles or quintiles, this procedure of removal of quintiles or deciles needs to be repeated within each household size (or household size group). Otherwise, if there are economies of scale for consumption, there is a risk of skewing the sample against the smallest and largest households because their per-capita expenditures will be at the extreme ends of the expenditure distribution.

- Another solution is to divide the MEB content into "private" (non-shared) and "public" (shared) consumption. For example, food could be non-shared, and rent and fuel shared. Examine the MEB expenditures for the non-shared and shared goods for an average sized household (or for household sizes around the average, for instance 4–6 members, in order to leverage a larger share of the sample). The non-shared value can then be scaled proportionally to household size, while the shared value is held constant across household sizes. This way, the resulting MEB consists of a 'flat' and a proportional element.[54] This is a relatively crude but intuitive way to approximate economies of scale. Figure 4 provides a simple illustration of this approach.

- In the literature on poverty, the most common solution used to adjust for economies of scale and difference in household composition is to use adult equivalents instead of per capita numbers. These equivalence scales assign an "adult equivalent number" to each household, depending on its size and composition, taking into account economies of scale as well as the different needs of children and adults, i.e. household composition. For example, the first adult in the household is counted as 1 and each additional adult as, for example, 0.7. A child under 15 is counted as a fraction of an adult (e.g. 0.5). The effective, adult equivalent household size is then the sum of these adult-equivalent fractions.[55] Next, total household expenditures are divided by the adult equivalent household size. The MEB is then calculated using these adjusted per-adult-equivalent expenditures. While this is not necessarily a complicated approach from an analytical point of view, equivalence scales can

If the analysis reveals small economies of scale or none at all, it is reasonable to use a per capita approach to scale up the MEB proportional to household size.

[53] See Lanjouw (1998) on the construction of poverty lines specific to household size (and composition).

[53] Alternatively, the flat element can also be 'semi-flat' and set according to household size groups –by examining shared costs and applying the same flat value within e.g. household size groups 1-2, 3-5, 6-8 or other groupings as dictated by the context.

[53] One common equivalence scale is the OECD scale: it assigns the weight 1 to the household head, 0.7 to all additional adults, and 0.5 to all children. A household with five people, say, two adults and three children, consists of 3.2 adult equivalents (1+0.7+0.5+0.5+0.5). This is a common scale used in many developing and developed countries. Another common scale is to give weight 1 to each adult and different weights to children depending on their age. For the official poverty line in Zambia, the following weights are given to children: 0–3 years: 0.36, 4–6 years: 0.62, 7–9 years: 0.76 and 10–12 years: 0.78.

prove challenging when operationalising the MEB. If equivalence scales are used in constructing the MEB, they will also need to be applied when measuring household expenditures compared with the MEB, for gap analysis against the MEB and in monitoring. Translating the concept of equivalence scaling into operational decision making may therefore prove tricky. Additionally, results can be quite sensitive to the choice of equivalence scales, so selecting appropriate scales is important yet often not straightforward, and a range of different scales exist.[56] In some countries, country-specific equivalence scales may have been devised for the purpose of the calculation of the national poverty line.

No matter the approach, the recommendation is always to **leverage data analysis as much as possible in order to understand how needs evolve with household size** (and possibly composition), **while keeping in mind that the final MEB needs to be operationally relevant**. Particularly in the (common) cases where MEBs are used to calculate household transfer values, it is worth considering what level of analytical granularity can feasibly be turned into programmatic action. In some cases, it may not be operationally possible to handle different per-capita size transfers for differently sized households, and the extra effort of achieving accurate MEB figures by household size may not be worth it. The same general recommendation as for all aspects of MEB construction also applies here: the final result should be realistic, a fair depiction of needs and an operationally relevant product.

MEB - COMBINING FLAT AND PROPORTIONAL ELEMENTS - ILLUSTRATION

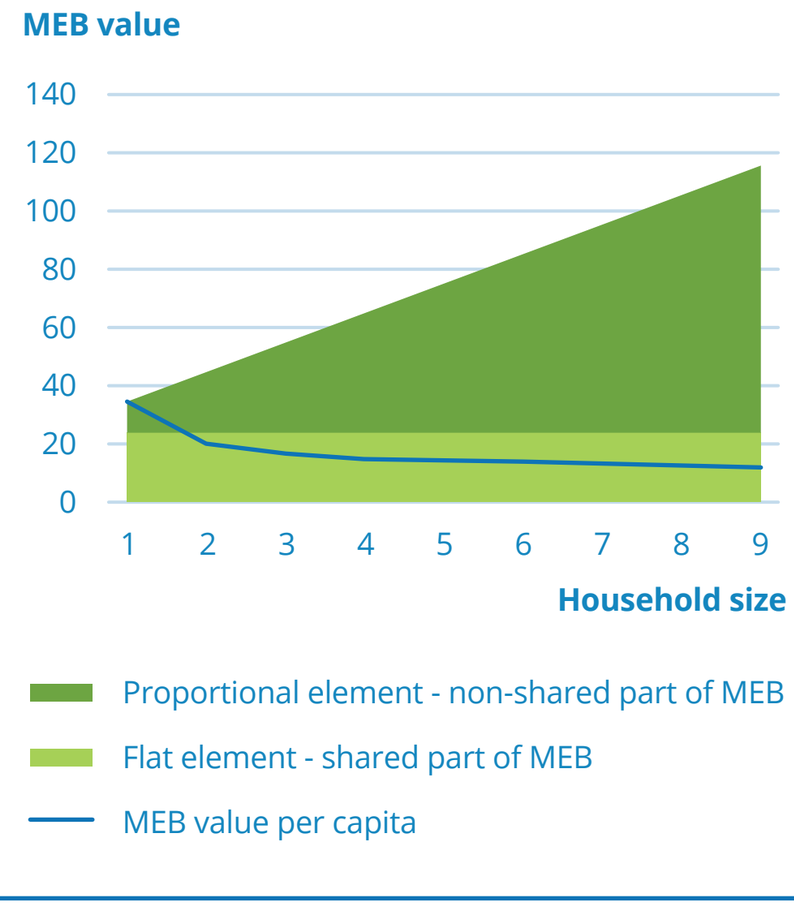


Figure 4. Combining flat and proportional elements in the MEB

[56] See for instance http://www.oecd.org/economy/growth/OECD-Note-EquivalenceScales.pdf.

8 How to construct a SMEB

A survival minimum expenditure basket (SMEB) is often constructed alongside a MEB. While the MEB is defined as what a household requires in order to meet their essential needs, on a regular or seasonal basis, and its average cost, the SMEB is the absolute minimum amount required to maintain existence and cover lifesaving needs, which could involve the deprivation of certain human rights. However, the concepts of SMEB and MEB have not always been used consistently by the humanitarian community and are sometimes used interchangeably. It is therefore important to be clear from the outset of the analysis whether a MEB or a SMEB is the goal.

A SMEB can serve at least two purposes. First, together with the MEB, it can be used to classify households into different categories of economic capacity to meet their needs, whereby households whose expenditures fall below the SMEB have highly insufficient economic capacity, households between the SMEB and the MEB have insufficient economic capacity, and households above the MEB have sufficient economic capacity. This information can then be used for profiling people in need, prioritizing beneficiaries or monitoring. Second, the SMEB can inform programmatic decisions such as transfer values in situations where immediate lifesaving assistance is required.

The approaches presented here follow the MEB methods adjusted to suit the different purpose of the SMEB. Accordingly, a SMEB can be expenditure-based or rights-based or a hybrid of the two approaches, depending on data availability and programmatic requirements.

> ***A SMEB can be expenditure-based or rights-based or a hybrid of the two approaches, depending on data availability and programmatic requirements.***

Expenditure-based approach to constructing a SMEB

The calculation of an expenditure-based SMEB is closely aligned with the literature on how to estimate national poverty lines. While the MEB corresponds to an "upper" poverty line, a "lower", extreme or austere poverty line is often defined by taking the food part of a MEB and adding this to the non-food needs regarded as the essential minimum for household survival.[57]

> ***The SMEB is the absolute minimum amount required to maintain existence and cover lifesaving needs, which could involve the deprivation of certain human rights.***

But how are survival non-food needs defined based on expenditure data? When people receive assistance, it is sometimes observed that households sell part of their food rations to cover some non-food items. These households forgo some of the required food intake in order to cover what they regard as survival non-food needs. Using expenditure data to construct a SMEB, a similar idea is explored: to calculate the SMEB, analysts identify those households whose *total food AND non-food expenditures* are approximately equal to the *MEB food basket amount only*. In order to access non-food items, these households will compromise their food intake to some extent: because their total expenditures would only be enough to cover their essential food requirements, i.e. the food MEB, anything spent on non-food items means that they are not meeting their essential food requirements. It is therefore fair to assume that the amount they choose to spend on non-food items must be regarded by the households as absolutely necessary. The non-food expenditures of these households can therefore be considered as the survival non-food needs. The SMEB is then calculated by adding these survival non-food expenditures to the food MEB. This SMEB allows households to meet their essential food needs and their survival non-food consumption. Note that this approach requires a food MEB figure (either already available or calculated as part of the SMEB analysis).

[57] See Lanjouw, 1998; and Haughton and Khandker, 2009.

The steps for constructing an expenditure-based SMEB are similar to those taken to construct a MEB, with the following additional considerations:

1. *Prepare expenditure data*: the expenditure data source can be the same as that used for the MEB.
2. *Select the reference cohort*: this step is different. The cohort is selected by computing total household expenditures and comparing them to the food MEB. Households with total expenditures equal to (or in an interval around) the food MEB are selected as the SMEB reference cohort.
3. *Establish food basket* and 4) *Establish non-food basket*: Using the SMEB reference cohort, start by examining how much these households spend on non-food items. Add this value to the MEB food value to arrive at the total value of the SMEB. To establish a food and non-food basket, there are two options: i) use the MEB food basket as the SMEB food basket, and the non-food expenditures of the SMEB reference cohort as the non-food basket; or ii) look at a third cohort of households, namely those whose total expenditures are around the just established total SMEB level, examine their food and non-food expenditures and unpack those into food and non-food baskets. While both options will provide the same overall value of the SMEB, they will differ in composition and the share of food/non-food expenditures.

Annex 2 provides an illustration of this method of constructing a SMEB.

Rights-based approach to constructing a SMEB

The rights-based approach to constructing a SMEB closely follows the rights-based approach to constructing a MEB. The main difference is that needs and the items and quantities included should be restricted to what is regarded as *absolutely necessary for survival* – which can be challenging to define. This applies to both the food basket and the non-food basket. The MEB can be a starting point, if there is one, or the Sphere Standards. Sometimes, rights-based SMEBs have been constructed based on a MEB but with lower quantities for certain items, or by keeping some needs while removing others.

Hybrid SMEBs and reality checking results

As with MEBs, it can be advantageous to combine the expenditure-based and rights-based approaches to create a hybrid SMEB. The guiding principles are the same as for the MEB, with the difference that the resulting SMEB should continue to contain nothing but the minimum required for survival.

The same logic applies to the "reality check" of the SMEB results; as for the MEB, it is crucial to ensure that the end result is realistic and operationally relevant, bearing in mind the conceptual difference between the MEB and the SMEB. It is important to consult the population of interest as much as possible to understand their views on what constitutes the bare minimum needed by households to maintain existence and cover lifesaving needs.

Box 20
RIGHTS-BASED SMEBS

COUNTRY EXAMPLE

In **Lebanon**, health and education are excluded from the rights-based SMEB, while other needs are covered with smaller amounts than in the MEB. For example, the SMEB has a less diverse food basket than the MEB.[58]

In **Syria**, the SMEB developed for the northern part of the country includes food, kerosene, hygiene products, water and a small amount to cover other survival goods. Rent and utilities are not covered.[59]

[58] El Koury and Hajal, 2016.
[59] Cash Based Responses Technical Working Group Syria, 2014.

COUNTRY EXAMPLE

Box 21

HYBRID SMEBs

For the MEB review in Lebanon for Syrian refugees,[60] a hybrid SMEB approach was chosen. First, an expenditure-based SMEB was used, calculating the non-food expenditures of households whose total expenditures equalled the food MEB, and adding this to the food MEB. This resulted in very low expenditures on shelter (SMEB A). Due to the importance of shelter in urban settings, a second, hybrid version was established, calculating the non-food expenditures of households whose total expenditures equalled the sum of the food MEB plus a rights-based value of a tent as survival shelter, the cost of which came from a rights-based SMEB (SMEB B).

Table a. Hybrid SMEB for Syrian refugees

	Expenditure-based MEB	Expenditure-based SMEB	Hybrid SMEB
		SMEB A: food + survival non-food	SMEB B: food + survival non-food & tent
	Cohort: HH size 4–6, quint. 2–4, acceptable FCS	*Cohort: total expenditure = food MEB*	*Cohort: total expenditure = food MEB + tent value*
	n=923	n=923/210	n=923/210
Food	43.7	43.7	43.7
Utilities (water, gas, fuel, electricity)	8.3	4.3	4.7
Non-food items (hygiene, clothing)	4.0	1.8	2.4
Health	9.3	3.7	4.2
Education	2.0	0.6	1.1
Transport	1.6	0.4	0.6
Communication	2.9	1.7	2.0
Other expenditures	1.9		
Shelter	31.4	6.0	16.2
Total (USD)	**103.3**	**62.1**	**75.0**

In the **Kinshasa** urban assessment,[61] a SMEB was established in addition to the MEB, comprising a basket of the most essential items based on expenditure data used for the MEB. For the food SMEB, a less diverse diet was established by excluding certain food items from the food MEB and rescaling the resulting basket to 2,100 kcal. For the non-food component, the only items included were those that were seen as critical to attaining the most basic standards for safety, food preparation, water, sanitation and hygiene. These consisted of water, cooking fuel, hygiene products and lighting. The value for these items in the SMEB was derived from the median expenditures of the non-poor cohort.

60 Hohfeld et al, 2020.
61 WFP et al, 2018.

9 Additional considerations when constructing MEBs

9.1 Adjustment for seasonal or regional price differences

If the MEB will only be used in one area where prices are relatively homogenous, it is often not necessary to adjust for regional price differences. However, if the MEB is intended for use across different urban/peri-urban and/or rural areas throughout the country, it could be vital to adjust for differences. This means that the MEB can be priced differently for different regions or rural or urban/peri-urban areas (or any other division of areas that makes sense in relation to price behaviour). There are a few approaches for this:

- Price the MEB based on available price data for different regions or urban/rural areas. For the food reference basket, this is most often possible using **WFP food prices or other similar price time series**. For non-food items including housing, utilities and services, this can be more challenging and may rely on price data collection by different partners or require new data collection.

- For some countries, price data provided by the **national statistical office** is useful. In the case of Turkey, regional purchasing power parity indices were used to provide price estimates for components of the MEB for which direct price information was not available.

- Use **approximations from expenditure data**. If the household survey has sufficient regional coverage, the expenditure levels in different regions can be explored, using the cohort of households just above the poverty line. Care should be taken in using this method, particularly if the sample size by region is very small.

> ***While the MEB should be constructed for a relatively homogenous population, it may sometimes be desirable to construct a MEB covering all or most of a country, where consumption patterns vary substantially***

9.2 Needs that vary by season or area

In many countries where WFP works, **household needs change with the seasons**. For instance, in Turkey where winters are cold, households have additional needs for heating and warm clothes to survive. In other contexts, there are significant differences in needs between lean and rainy seasons. These changing needs could be a reason to construct different MEB reference baskets to use at different times during the year, or to design seasonal top-ups. In the case of items needed for cold winters, this is often referred to as "**winterization**".

While this does not influence the approach used to construct the MEB, it does mean that analysts need to consider when the data used in its construction was collected and whether this influences the resulting MEB. These considerations also matter when using the MEB for monitoring; if a monitoring expenditure survey is used to analyse whether people's expenditures are above or below the MEB threshold, but the survey is undertaken when prices are high, or when winters are cold, if the MEB is not adjusted, the results will probably show a decrease in the percentage of people whose expenditures are below the MEB as households have higher needs and/or are confronted with higher prices and thus have higher expenditures, without in reality being better off. In Turkey, it was estimated that household needs during the winter would result in a 48 percent increase in minimum expenditures.

In other cases, **different baskets might be necessary for different areas of the country**, e.g. rural and urban areas. While the MEB should be constructed for a relatively homogenous population, it may sometimes be desirable to construct a MEB covering all or most of a country, where consumption patterns vary substantially. In this case, it is worth considering whether (some elements of) the MEB should be different between areas. Again, the selected approach to construct the MEB should not change, but analysts need to check where the data used in its construction was collected and whether consumption patterns are very different between different regions/areas. For example, in the case of Somalia, the main cereal consumed varies significantly between the north and the south of the country, so the MEB uses different main cereals in the food reference basket according to region.

10 How to find a proxy for a MEB when data or time is insufficient

Constructing a MEB can be challenging in a sudden onset emergency or if data is scarce or unavailable. Below are some ideas on how this can be resolved. However, from a "do no harm" perspective, it is important to emphasize that proxies should only be used in the interim when no other solutions are available.

- Use the national MEB or MEB reference basket. If survey data is not directly available, and if the population of interest is part of and similar to the overall population of the country, the national MEB or MEB reference basket used for the national poverty line can be used, if available. Bear in mind, however, that this basket should be used on the condition that it corresponds to data that WFP collects or has access to through partners or the Government, to ensure that monitoring can be conducted against the MEB.

- In its most basic form, a MEB essentially only requires an approximate value for the food basket, and an estimate of the average expenditure share that households use on food. Even if no relevant survey data is available, this information should be available to a country office or can rapidly be collected or approximated.

- Consider using the minimum wage as a proxy. Bear in mind that while the MEB captures household-level needs, the minimum wage is individual-level income so an assessment of how many minimum wages are needed per household depending on the household size is required. It is also advisable to find out how the minimum wage has been constructed.

Ultimately, a MEB is a good preparedness measure and should be constructed before an emergency. While both prices and availability will be affected by an emergency, it is still likely to provide a useful starting point.

11 Monitoring and updating the MEB

11.1 Monitoring the cost of the MEB

To be operationally useful, the MEB must be tracked and updated over time to account for price changes. If inflation is high, this might have to be done every month; if it is low, as little as once a year could be sufficient. This should be planned for when the MEB is constructed to ensure that the costs of the MEB components can be updated.

There are different ways to update the MEB with price changes:

- If a reference basket is adequately defined (for food and for non-food items), and prices are collected for the individual items in the basket by WFP or its partners, the **MEB can be priced anew**, using the updated prices for each item and multiplying them by the quantities in the reference basket.

- A simple solution is to **adjust the MEB using the national/sub-national CPI or its components**. This simply involves updating the cost of the MEB with the increase (or decrease) in the CPI for the period in question. However, in some contexts, CPIs are not updated or relevant for the target population. Urban areas are often over-represented in the national CPI; on the other hand, prices and costs faced by, for example, displaced populations can be very different from national price levels. In contexts of poverty where food constitutes a large part of household expenditures, the evolution of food and fuel prices is central when it comes to capturing price changes.

- If a CPI does not exist or is not considered applicable, **a price index for key consumption items can be constructed** using price data collection for food items and basic non-food items conducted by WFP and/or other agencies; this can then be used to update the cost of the MEB. In contexts where shelter is a major part of household expenditures, changes in shelter costs should also be captured.

11.2 When to construct a new MEB?

The composition of MEB reflects consumption patterns. It is recommended as much as possible keeping the MEB composition constant and only monitor how cost changes over time. However, when there is reason to believe that consumption patterns of the population for whom the MEB is constructed has significantly changed, it is time to review its composition and possibly reconstruct the MEB to reflect these changes.

What could suggest such consumption changes have occurred? The figure to the right summarises some typical events that could result in a significant change in household consumption. **Shocks**, e.g. a natural disaster, might create additional needs if livelihoods are disrupted or living conditions are altered. Significant changes to the **prices** of key consumption items can also alter consumption pattens, insofar it pushes households to substitute certain items for other items (be aware, however, that reconstructing the MEB would only be advisable if the substitution is not just temporary). **Population changes**, such as an influx of displaced people or other events that changes the population composition in the area that the MEB is constructed for, could also lead to a review. Finally, if **supply of essential goods and services** changes this may also shift household consumption, e.g. if health services are made free of charge and no longer require households to pay for them.

Shock	Has a shock occured creating different or additional needs?
Substitution	Have costs changed significantly between key consumption items, so that households have substituted consumption patterns?
Population	Has there been a change in population - e.g. a displacement?
Supply	Has the supply side or service provision changed, leading to a change in household consumption?

Figure 5. Possible triggers for MEB composition review

Abbreviations

CaLP	The Cash Learning Partnership
CBT	cash-based transfers
CotD	Cost of the Diet [approach]
CPI	consumer price index
FCN-N	food consumption score – nutrition
FCS	food consumption score
FNG	Fill the Nutrient Gap
HEA	household economy approach
LSMS	Living standard measurement survey
MEB	minimum expenditure basket
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
REVA II	2019 Refugee Influx Emergency Vulnerability Analysis
SDG	Sustainable Development Goal
SMEB	survival minimum expenditure basket
UNHCR	Office of the United Nations High Commissioner for Refugees
VAM	Vulnerability Analysis and Mapping
WFP	World Food Programme
WHO	World Health Organization

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Annex 1 - Good practice when analysing expenditure data

Analysts should always ensure that the expenditure data is **properly cleaned and outliers removed**, and that it is converted into the **same recall period** (food and non-food items usually have different recall periods).

Expenditures should be calculated into **per capita figures** (e.g. by dividing total household expenditures by household size) in order to make them immediately comparable across households (or per adult equivalent; see section 7 on how to account for economies of scale and household composition).

Before starting the MEB analysis, it is highly recommended to carry out some simple descriptive analysis of the expenditure data in order to understand it. Analyse **the mean and median expenditures for the sample**. This will help understand the distribution of the expenditures and detect possible issues. While the median is more robust to outliers, if a large part of the sample has 0 expenditures on a particular item, the median could be 0 and may therefore not be the best estimate of the need. In this case, the mean may be preferable. A **frequency analysis** of non-zero expenditures by group/item can also be helpful in understanding whether certain expenditures are infrequent or lumpy.

Annex 2 - The expenditure-based SMEB – an illustration

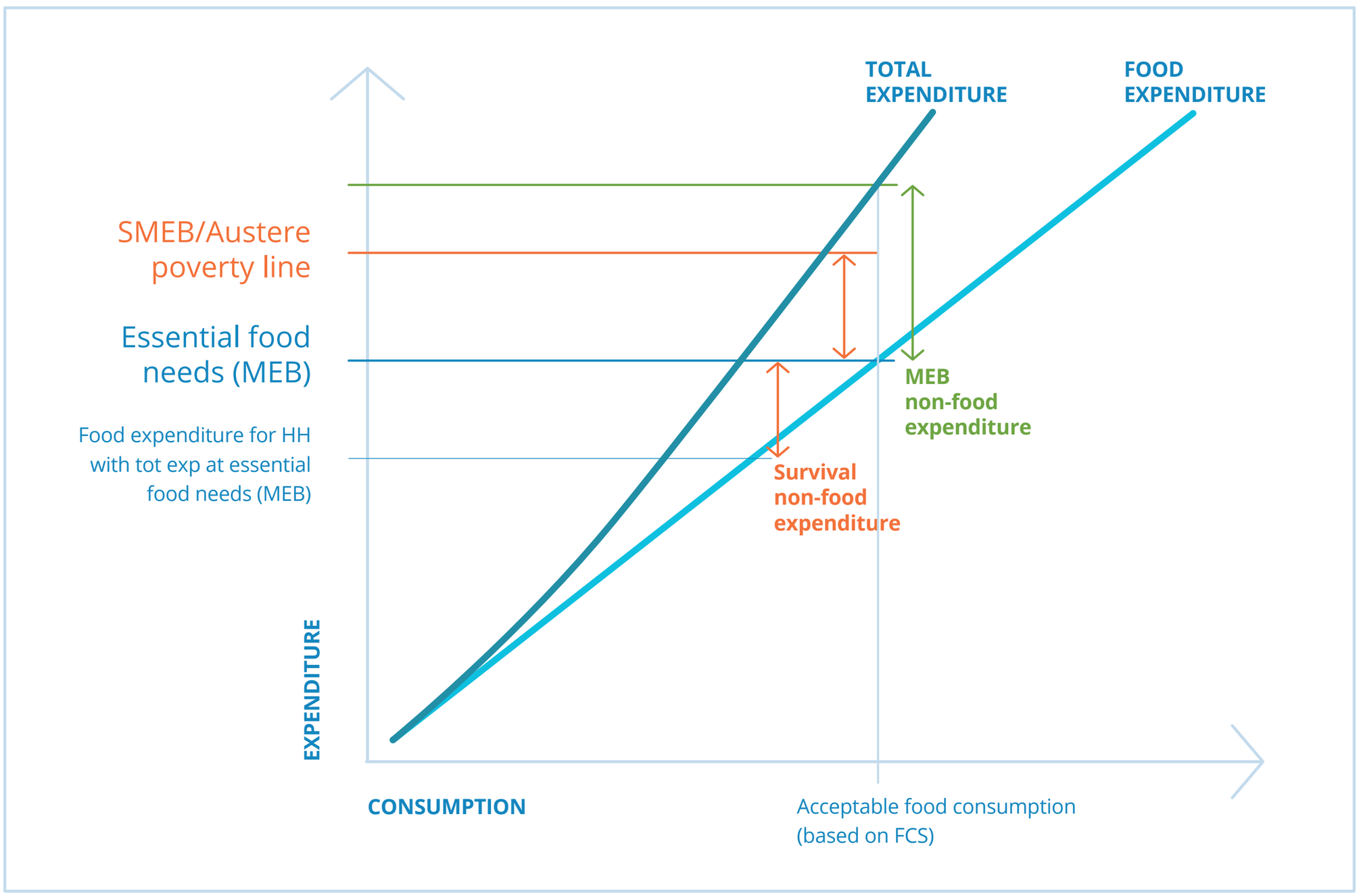

Figure based on Lanjouw. 1998. *Demystifying poverty lines* and World Bank and Ravallion. 1994. "Poverty comparisons" in *Fundamentals of Pure and Applied Economics* 56.