World Food Programme

Minimum Expenditure Basket in Malawi

A look at Food and Non-Food Prices and Availability in Times of COVID-19

Round 59 : 11–15 July 2022

Photo: Badre Bahaji, WFP Malawi

SAVING LIVES
CHANGING LIVES

Highlights

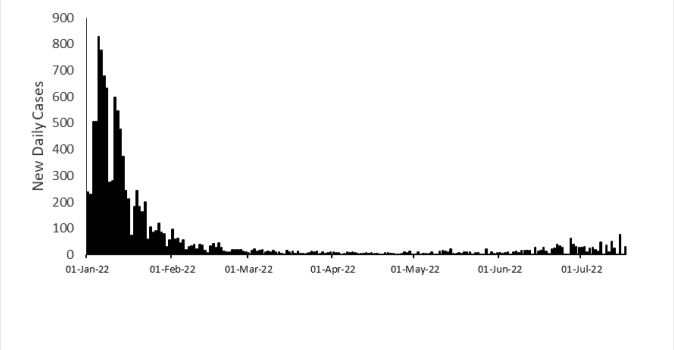
- The Survival Minimum Expenditure Baskets' (SMEBs) values continue to escalate, reaching record highs across the country as the inflation rate surged to 23.5 percent in June 2022.
- The SMEB increased by 10.1 percent in the rural Northern Region; by 6.6 percent in the rural Central Region; and by 7.6 percent in the rural Southern Region; and by 3.6 percent in urban areas. Both food and non-food expenditure rose in all the regions. A significant share of the SMEBs increase came from the rise in the prices of maize grain, green vegetables, and firewood as well as milling cost.
- By mid-July, maize grain was trading at MK 307 per kg, increasing by 5.5 percent since the last round in early July 2022. Price projections show that the price of maize grain will continue to rise until harvest in April next year, peaking in February 2023.
- The price of beans increased by 2.2 percent to MK 1,331 per kg since the previous round. Modelling shows that the price of beans is projected to be the highest in January 2023.
- The price of cowpeas slightly increased by 2.8 percent to MK 804 per kg while that of pigeon peas fell sharply by 17.5 percent to MK 624 per kg since Round 58.

COVID-19 Update

There was a slight uptick in daily cases of the COVID-19 between June and July this year. *Figure 1* shows that cases of the COVID-19 pandemic were observed to slightly increase since mid-June after remaining very low since February this year. Previous years' trends in the country reveal that cases of the COVID-19 typically increase during the winter season. For instance, two waves of the pandemic were observed during this period in the last two years since the onset of the pandemic in April 2020. However, no alarming numbers of positive cases and deaths have been recorded since February this year after the end of the fourth wave of COVID-19.

During the reporting period between 11 and 15 July 2022, there were 159 confirmed cases of the pandemic with four COVID-19 related deaths reported. Since the last round of the data collection, however, the country's active cases decreased by 16.2 percent from 505 on 1 July 2022 to 423 on 15 July 2022.

Figure 1. COVID-19 prevalence since January 2022



The combined effects of the COVID-19 and the Russia-Ukraine crisis have far-reaching impacts on the Malawi's economy. Although this year's low caseload of COVID-19 was expected to result in an uptick in market operations in the country, the prices of essential food and non-food commodities skyrocketed since the onset of the crisis in Ukraine. The crisis has distorted the global production and supply chain of key commodities, resulting in soaring of prices for food, fuel, and fertilisers in the country and across the globe.

Deriving the Minimum Expenditure Basket

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 to meet their essential needs. While the MEB is defined as what a household requires to meet their essential needs, on a regular or seasonal basis, and its average cost, the survival MEB (SMEB) is the absolute minimum amount required to maintain existence and cover lifesaving needs. However, the concepts of an SMEB and MEB are sometimes used interchangeably.

There are several ways in which to construct an SMEB. The United Nations World Food Programme (WFP) Malawi Country Office constructed its SMEB in line with a rights-based approach, based on previously-assessed needs, by collecting expenditure data. Data on the construction of both the rural and urban area SMEBs was collected using a WFP in-house call centre (mobile Vulnerability Assessment and Mapping—mVAM), reaching over 175 traders in some 70 rural and urban local markets. Contacted traders provided the market prices of available food and non-food items during the periods between 11-15 July 2022 for the MEB Round 59. The previous round's data (Round 58) was collected between 13 – 17 June and 4 – 8 July 2022.

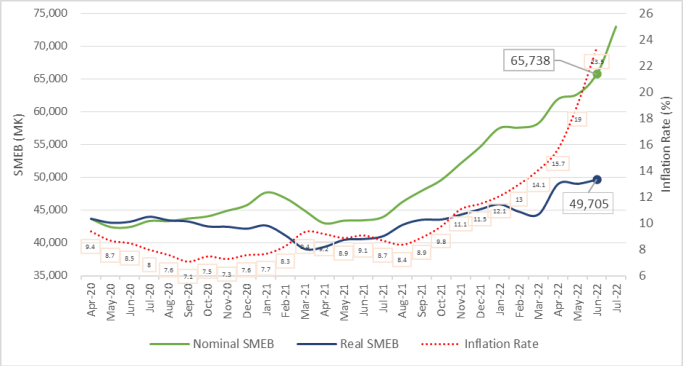
The detailed methodology for the construction of the SMEB as well as the key assumptions employed are depicted in *Annex B*. Once constructed, the MEB itself serves as a key input in the essential needs assessment set of indicators, as it is used to assess which households have the economic capacity to cover their needs through the market.

What does the Round 59 SMEB show?

The SMEB continue to escalate to record highs across the country as the inflation rate surged to 23.5 percent in June 2022. As the country's headline (year-on-year) inflation rate surged to 23.5 percent in June 2022, households' expenditure continues to rise with the increase in prices of essential commodities. The headline inflation rate steadily increased by 4.4 percentage points in June 2022 from the May 2022 inflation rate of 19.1 percent. Food inflation also rose to 31.2 percent in June 2022, from 25.5 percent in May this year while non-food inflation was at 16.6 percent in June and 13.2 percent in the preceding month as the impacts of the Russia-Ukraine Crisis, combined with other challenges including COVID-19, take a toll on the economy.

The rise in food and overall inflation rates comes at a time when the country concluded harvesting most of its crops. Typically, the inflation rate eases during this period owing to increased availability of maize grain stocks resulting in dampened prices. Maize makes up over 45 percent of the Consumer Price Index (CPI), an index that is used to calculate inflation rates. The rising inflation rate has significantly decreased the purchasing power of households as their real incomes dwindled overtime as shown by *Figure 2*. The widening gap between the nominal and real expenditure signifies the increasing amount of a typical household income (proxied by expenditure) lost due to the rising inflation rate.

Figure 2. Trends of inflation rate, nominal and real expenditure (SMEBs)



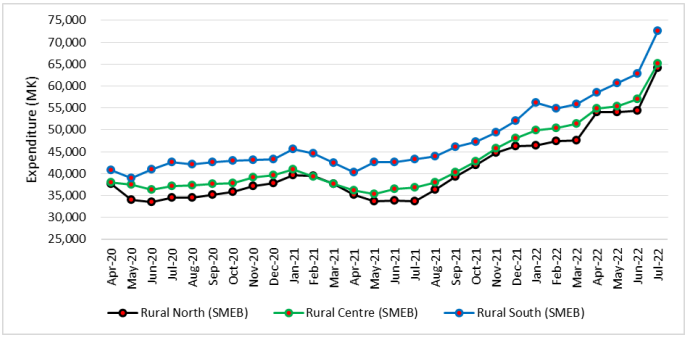
The survival minimum expenditure rose more significantly in the rural areas compared to the urban cities. This may indicate that access to basic commodities was more limited in rural areas, resulting in increased prices and households' expenditure. In both the current and previous rounds, the rural Northern Region recorded the largest increases in households' actual expenditure. In the current round, the least increase in the SMEB was observed in the urban areas where expenditure decreased during the previous round. *Table 1* provides detailed changes in the SMEB values between the latest two rounds and *Figure 3* depicts rural households' monthly average expenditure trends since April 2020.

Table 1. SMEB values and their change between Round 59 and Round 58

Area of Coverage	Total SMEB		Food Expenditure		Non-Food Expenditure	
	Malawi Kwacha	% Change	Malawi Kwacha	% Change	Malawi Kwacha	% Change
Urban	91,535	↑ +3.6	61,528	↑ +3.5	30,007	↑ +3.7
Rural North	67,313	↑ +10.1	59,537	↑ +9.9	7,777	↑ +12.3
Rural Centre	67,161	↑ +6.6	58,735	↑ +6.8	8,426	↑ +5.3
Rural South	75,199	↑ +7.6	62,907	↑ +5.3	12,292	↑ +20.8

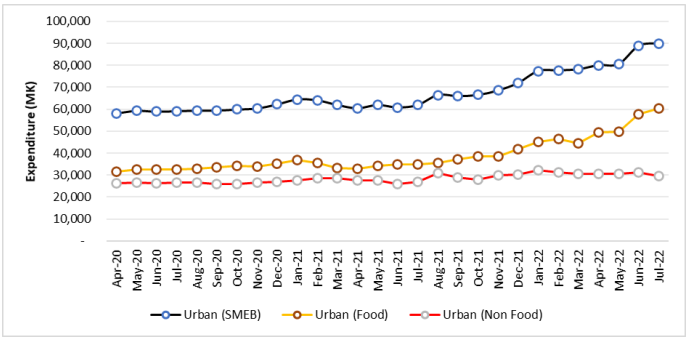
A significant share of the SMEB increase came from the rise in the prices of both food and non-food commodities mainly maize grain, green vegetables, charcoal, or firewood as well as milling cost. This year, the price of maize remained elevated even during the harvesting period when prices tend to be typically subdued. Main contributing factors to higher-than-normal prices of maize grain this year include the deepening Russia-Ukraine conflict, the knock-on effects of the COVID-19 pandemic, the large-scale flooding experienced earlier this year, and prolonged dry spells that occurred early in the planting season. These factors prompted producers and traders to hoard their grain to sell during the lean months when prices are at their highest. Typically, vegetable production drops during winter which results in increased prices of green vegetables. Frequent and prolonged power outages, increased cost of electricity and the winter season have all resulted in increased demand and thus prices for charcoal and firewood. Increased demand for milling services after harvest period may have necessitated the rise in the cost of milling across the country.

Figure 3. Average monthly nominal rural SMEBs trends by region since 2020



The urban areas registered a 3.6 percent increase in the SMEB to MK 91,535 per month. In the urban cities, both food and non-food expenditure rose by 3.5 percent and 3.7 percent, respectively, resulting in a 3.6 rise in a typical household's minimum expenditure. The SMEB rose from MK 88,372 per month during the previous round to MK 91,535 per month in this round. This means that a typical 4.5-member household residing in any of the cities required an additional MK 3,163 per month during the current round to meet its basic survival food and non-food requirements. A notable rise in the cost of beans (by 4.1 percent), cassava (by 4.0 percent), charcoal (by 6.8 percent), milling (by 9.8 percent), and soap (by 9.9 percent) all resulted in increased household expenditure in these cities. The price of maize moderately rose by 1.3 percent in urban areas. *Figure 4* provides the trends for the nominal SMEB for urban areas.

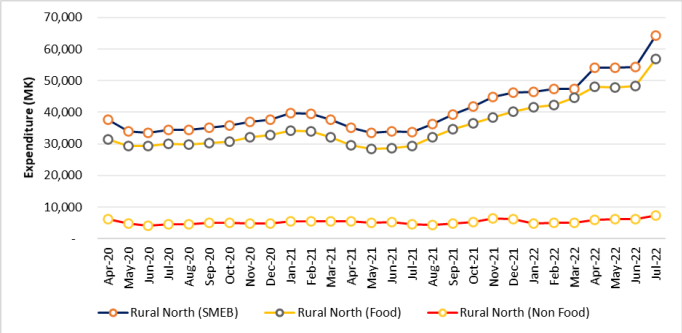
Figure 4. Trends for Survival MEB for the urban areas



In the rural Northern Region, expenditure surged to MK 67,313 per month, up by 10.1 percent since the last round. A typical household in this region required MK 6,202 more per month compared to the previous round to meet its basic needs. This follows a sharp rise in SMEB from MK 61,111 per month in the last round to MK 67,313 per month in the current round. Food expenditure increased by 9.9 percent while expenditure on non-food items soared by 12.3 percent between this and the previous round.

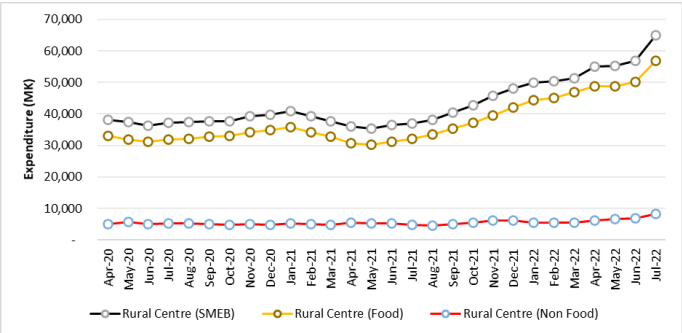
The drastic increase in the prices of maize by 23.0 percent; vegetables by 14.5 percent; and firewood by 29.6 percent largely pushed up households' expenditure in this region. Increases in the cost of beans (by 9.8 percent), fish (by 8.3 percent) and milling (by 8.2 percent) also contributed to the rise in overall expenditure. *Figure 5* shows the trends for the rural Northern Region.

Figure 5. Trends for Survival MEB for the rural Northern Region



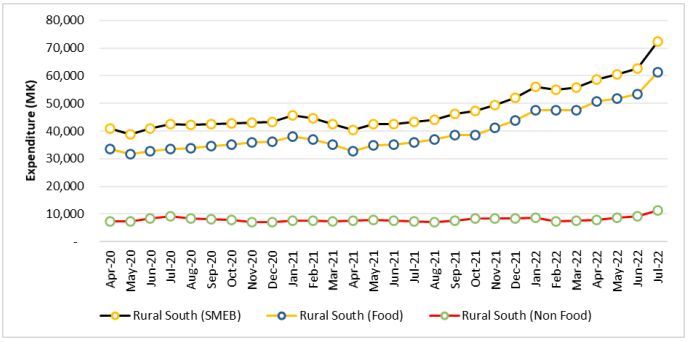
For a typical household in the rural Central Region, the SMEB rose by 6.6 percent to MK 67,161 per month. The rise in food and non-food expenditure by 6.8 percent and 5.3 percent, respectively pushed up the SMEB to MK 67,161 per month in this round from MK 62,976 per month in the previous round. This means a typical household residing in the rural areas of the Central Region spent MK 4,185 more per month in the current round compared to the previous one. Prices of maize grain, vegetables, fish, and firewood remarkably rose by 16.5 percent, 10.9 percent, 6.3 percent, and 8.3 percent, respectively between the latest two rounds. These food and non-food commodities price increases mostly contributed to the 6.6 percent rise in the SMEB for this region. *Figure 6* shows the trends in households' spending for the rural Central Region.

Figure 6. Trends for Survival MEB for the rural Central Region



During the current, the SMEB rose by 7.6 percent to MK 59,742 per month compared to the previous round. In this region, food expenditure rose by 5.3 percent mainly from increases in the prices of maize grain (by 11.7 percent), vegetables (by 8.7 precent), and fish (by 5.8 percent). Further, the rise in firewood by 34.8 percent and the cost of milling by 8.2 percent mainly pushed up the non -food expenditure by 20.8 percent. Between the current and the previous rounds, the SMEB increased to MK 59,742 per month from MK 69,914, respectively. This implies that an average household spent MK 5,285 more per month in this round to meet their minimum survival. *Figure 7* depicts the trends in expenditure for the region over the past two years.

Figure 7. Trends for Survival MEB for the rural Southern Region

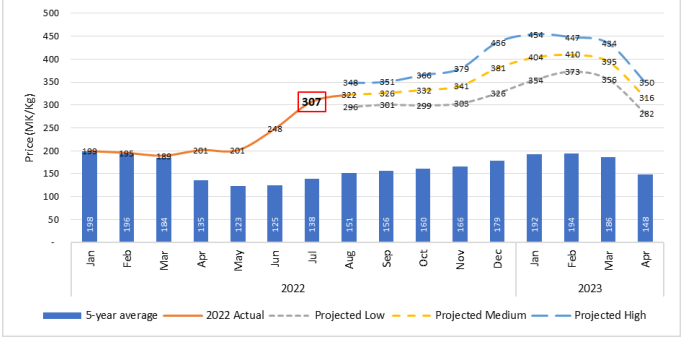


Maize Grain Retail Prices

Projections show that the prices of maize grain will continue to rise in the upcoming months until the next harvest in April next year. To project possible future prices of maize and pulses, the Grand Seasonal Index (GSI) Model was used by analysing past price trends and estimating retail prices for maize until April 2023. Using this model, data on monthly average prices of maize grain from January 2008 to July 2022 was used. The GSI gives the projections at three levels, namely the projected lowest, medium, and highest price. In this analysis, prices from a projected medium prices trendline compared well with the actual observed prices (see *Figure 8*). The prices will remain the highest between December 2022 and March 2023.

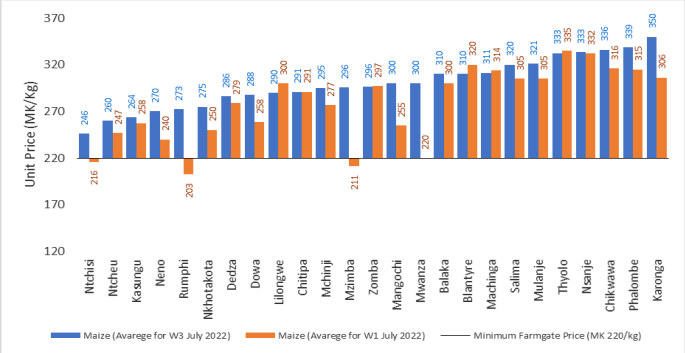
By mid-July, maize grain was trading at MK 307 per kg. The price of maize grain increased by 5.5 percent to MK 307 per kg during mid-July 2022 (Round 59) from MK 291 per kg earlier the same month (Round 58). In July last year, maize grain was selling at an average price of MK 130 per kg, which is 136.2 percent lower than the current price. The current price is also 145.6 percent higher than the five-year average price of MK 125 per kg for the month. The price of maize is expected to peak at a national average price of MK 410 per kg in February 2023 *(Figure 8).*

Figure 8. Maize actual and projected monthly average national prices



The current round shows that the price of maize was the highest in the Southern Region and lowest in the Central Region. Maize continued to sell at a relatively higher price in the Southern Region followed by the Northern and the Central Regions. In the Southern Region, the grain was trading at an average price of MK 321 per kg, up from MK 311 per kg in the last round. Further, maize price averaged at MK 301 per kg in the Northern Region, increasing from MK 254 per kg during the previous round. Furthermore, In the Central Region, maize grain was trading at an average price of MK 282 per kg, an increase from MK 265 per kg in the previous round.

Figure 9. Average maize grain prices by district relative to farmgate price



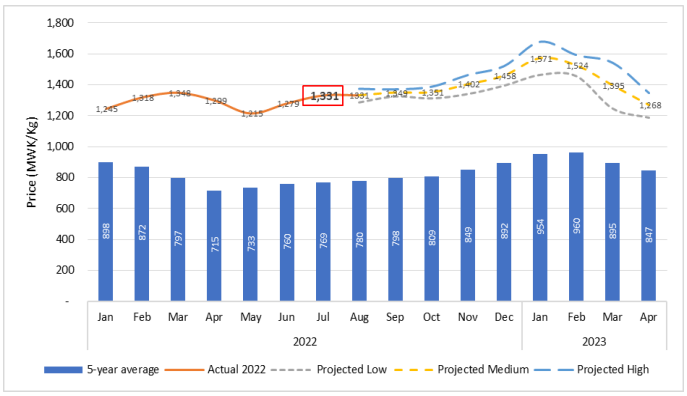
By District, Karonga recorded the highest average price of maize, selling at MK 350 per kg. The price of maize grain significantly rose in several districts between the current and the previous rounds. *Figure 9* shows that maize was selling above the Government's set minimum farmgate price of MK 220 per kg in all the 25 monitored districts during the current round. This is the first time the price of maize surpassed the minimum farmgate price in all the districts since the announcement of the 2022/23 farmgate prices in April this year. In Karonga District, maize was trading at MK 350 per kg, the highest average district price recorded in the current round. Ntchisi District, however, recorded the lowest grain price, at MK 246 per kg.

Prices of Pulses

Since the last round, prices of beans and cowpeas moderately increased while that of pigeon peas significantly decreased. Prices of pulses—particularly of beans and cowpeas—remained elevated this year, owing to low stock carryover from the previous year and poor production this year. These prices are projected to remain high throughout the year and peak between end of the year and early next year. The price of pigeon peas usually dips between July and October as harvesting of this intensifies particularly in the Central and Southern Regions.

The price of beans increased by 2.2 percent to MK 1,331 per kg in the current round. Continued depletion of beans due to consumption and exportation has resulted in a steady increase in the price of beans. The price of beans moderately increased to MK 1,331 per kg from MK 1,327 per kg in the last round. It was observed that the price of beans remained generally high during the first half of the year, 2022. Last year (2021), prices were equally high owing to the poor production due to heavy rains experienced during the 2020/2021 growing season, resulting in low carryover stocks in 2022. Excessive flooding during the 2021/2022 growing season affected beans production resulting in even lower production and consequently, high prices in 2022. Using the GSI Model, the price of beans is projected to be the highest in January 2023, averaging at MK 1,571 per kg (*Figure 10*).

Figure 10. Beans actual and projected monthly average retail prices



The price of cowpeas slightly increased by 2.8 percent while that of pigeon peas sharply fell by 17.5 percent. The price of cowpeas increased to MK 810 per kg in the current round from MK 804 per kg in the last round. During this same period, the price of pigeon peas significantly decreased to MK 624 per kg from MK 770 per kg. Cowpea price is projected to peak in December 2022, at MK 976 per kg (*Figure 11*) while the price of pigeon peas is expected to peak in March 2023, selling at as high as MK 870 per kg (*Figure 12*).

Figure 11. Cowpeas actual and projected monthly average retail prices

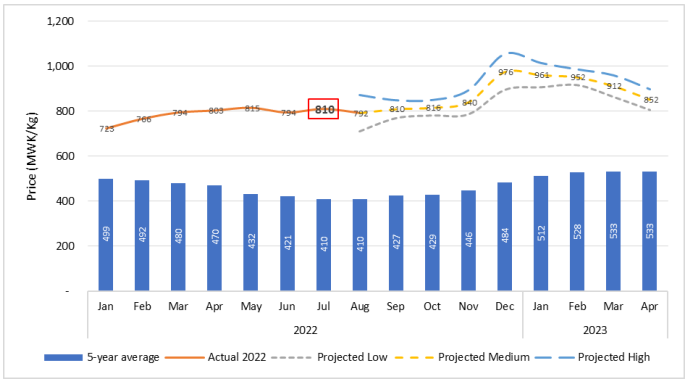
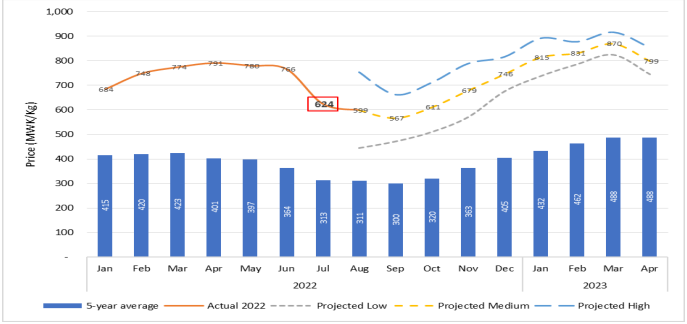


Figure 12. Pigeon peas actual and projected monthly average retail prices



Annex A: Tables for Survival Minimum Expenditure Basket

Table 3A. Survival MEB for the Urban Areas

Commodity	Quantity per person per month	Unit of measure	Unit Price	Cost per person per	MEB Round (Household Size = 4.5)	
					Current	Previous
Food commodities						
Cereals (Maize)	12.60	Kg	302	3,806	17,126	16,907
Pulses	1.50	Kg	1,486	2,229	10,029	9,634
Cooking Oil	0.75	Kg	3,872	2,904	13,067	12,564
Roots and Tubers	0.60	Kg	500	300	1,350	1,283
Salt, Iodized	0.15	Kg	500	75	338	338
Vegetables	3.00	Kg	365	1,094	4,924	4,802
Eggs (chicken)	0.15	Kg	3,200	480	2,160	2,000
Fish (dried)	0.60	Kg	3,371	2,023	9,103	8,444
Sugar	0.60	Kg	1,271	763	3,433	3,461
Sub-Total for Food Cost				**13,673**	**61,528**	**59,432**
Non-Food Items (NFI's)						
Charcoal	50	Kgs	257	12,857	12,857	12,042
Match Box	4	boxes	80	320	320	320
Electricity charges	10	times	100	1,000	1,000	1,000
Electrical charging	15	times	100	1,500	1,500	1,500
Milling	4	times	529	2,115	2,115	1,927
Soap Laundry	2	Pcs	293	586	586	533
Soap bar bathing	2	Pcs	814	1,629	1,629	1,618
House rent	1	month	10,000	10,000	10,000	10,000
Sub-Total for NFIs Cost				**30,007**	**30,007**	**28,940**
TOTAL MEB					**91,535**	**88,372**

Table 3B. Survival MEB for the Rural Northern Region

Commodity	Quantity per person per month	Unit of measure	Unit Price	Cost per person per month	MEB Round (Household Size = 4.5)	
					Current	Previous
Food commodities						
Cereals (Maize)	12.60	Kg	302	3,800	17,100	13,899
Pulses	1.50	Kg	1,128	1,691	7,612	6,930
Cooking Oil	0.75	Kg	3,834	2,876	12,940	12,869
Roots and Tubers	0.60	Kg	383	230	1,035	1,028
Salt, Iodized	0.15	Kg	300	45	203	203
Vegetables	3.00	Kg	353	1,058	4,760	4,156
Eggs (chicken)	0.15	Kg	2,926	439	1,975	2,007
Fish (dried)	0.60	Kg	3,832	2,299	10,345	9,550
Sugar	0.60	Kg	1,321	793	3,567	3,546
Sub-Total for Food Cost				**13,230**	**59,537**	**54,187**
Non-Food Items (NFI's)				-		
Fuel wood	50	Lump-sum	34	2,702	2,702	2,085
Match Box	4	Boxes	80	320	320	320
Milling	4	Times	553	2,211	2,211	2,042
Soap Laundry	2	Pcs	335	671	671	643
Soap bar bathing	2	Pcs	937	1,874	1,874	1,834
Sub-Total for NFIs Cost				**7,777**	**7,777**	**6,924**
TOTAL MEB					**67,313**	**61,111**

Table 3C. Survival MEB for the Rural Central Region

Commodity	Quantity per person per month	Unit of measure	Unit Price	Cost per person per month	MEB Round (Household Size = 4.5)	
					Current	Previous
Food commodities						
Cereals (Maize)	12.60	Kg	281	3,536	15,913	13,658
Pulses	1.50	Kg	1,239	1,859	8,366	8,155
Cooking Oil	0.75	Kg	3,875	2,906	13,078	12,890
Roots and Tubers	0.60	Kg	391	235	1,056	1,132
Salt, Iodized	0.15	Kg	300	45	203	203
Vegetables	3.00	Kg	372	1,117	5,028	4,532
Eggs (chicken)	0.15	Kg	2,974	446	2,007	1,944
Fish (dried)	0.60	Kg	3,589	2,154	9,691	9,120
Sugar	0.60	Kg	1,257	754	3,393	3,343
Sub-Total for Food Cost				**13,052**	**58,735**	**54,978**
Non-Food Items (NFI's)						
Fuel wood	50	Lump-sum	66	3,303	3,303	3,050
Match Box	4	Boxes	80	320	320	320
Milling	4	Times	599	2,395	2,395	2,300
Soap Laundry	2	Pcs	307	614	614	588
Soap bar bathing	2	Pcs	897	1,795	1,795	1,741
Sub-Total for NFIs Cost				**8,426**	**8,426**	**7,998**
TOTAL MEB					**67,161**	**62,976**

Table 3D. Survival MEB for the Rural Southern Region

Commodity	Quantity per person per month	Unit of measure	Unit Price	Cost per person per month	MEB Round (Household Size = 4.5)	
					Current	Previous
Food commodities						
Cereals (Maize)	12.60	Kg	321	4,045	18,205	16,300
Pulses	1.50	Kg	1,409	2,113	9,510	9,521
Cooking Oil	0.75	Kg	3,887	2,915	13,119	12,883
Roots and Tubers	0.60	Kg	274	164	740	740
Salt, Iodized	0.15	Kg	300	45	203	203
Vegetables	3.00	Kg	467	1,402	6,307	5,803
Eggs (chicken)	0.15	Kg	3,063	459	2,068	1,975
Fish (dried)	0.60	Kg	3,469	2,082	9,367	8,856
Sugar	0.60	Kg	1,255	753	3,389	3,461
Sub-Total for Food Cost				**13,979**	**62,907**	**59,742**
Non-Food Items (NFI's)						
Fuel wood	100	Lump-sum	72	7,214	7,214	5,351
Match Box	4	Boxes	80	320	320	320
Milling	4	Times	611	2,446	2,446	2,260
Soap Laundry	2	Pcs	301	603	603	582
Soap bar bathing	2	Pcs	855	1,710	1,710	1,660
Sub-Total for NFI's Cost				**12,292**	**12,292**	**10,173**
TOTAL MEB					**75,199**	**69,914**

Annex B: Construction of the Survival MEB (SMEB) and Assumptions

The Survival Minimum Expenditure Basket (SMEB) is the bare minimum amount a household requires to maintain existence and cover lifesaving needs. There are several ways in which to construct an MEB. For this analysis, WFP has elected to construct a Survival Minimum Expenditure Basket (SMEB), which is defined as the bare minimum amount a household requires to maintain existence and cover lifesaving needs. This is done in-line with a rights-based approach based on previously assessed needs.

To do this, WFP began by reviewing existing expenditure data that was collected in late 2019 and 2020 as part of its regular monitoring to better understand the typical expenditure (starting with food), then bringing elements of the household's needs/rights, thus looking at essential non-food items.

The food commodities selected to calculate the SMEB are those that make up a typical rural and urban survival diet and include cereals, roots and tubers (cassava and sweet potatoes), pulses, oil, vegetables, fish, eggs, sugar, and salt. Using the *Nutval*, a spreadsheet application for planning and monitoring the nutrition content of food found on the local market, WFP determined a ration that meets the basic energy requirement of 2,100 kilocalories per person per day. Of the total energy, 12 percent is provided from proteins (requirement range is 10-12 percent) and 20 percent is from fats (requirement is at least 17 percent of energy should come from fats). Approximately 62 percent of the total food basket is attributed to cereals (maize).

While WFP strives to promote enhanced dietary diversity, historical data collected in late 2019 and 2020 on the expenditure of severely food insecure households residing in rural areas indicates that households are still spending the vast majority of their in-come on cereals, specifically maize. Since we are striving to understand how price fluctuations and commodity availability are affecting those most vulnerable, the food portion of the MEB has been constructed with this in mind, reflecting the reality of those most vulnerable.

In addition, WFP included the following essential non-food commodities when constructing its basket:

- **Firewood**: Assumes that households are purchasing firewood as opposed to collecting it themselves. This practice varies from location to location.
- **Matches**: Assumes that an average household uses approximately four match boxes per month
- **Electricity bills**: Assumes that urban-based households are incurring costs for using electricity mainly for lighting and that this amount remains relatively constant over the course of a month regardless of the household size. This may not be the case for all households but is included in the urban SMEB. Thus, if an urban-based household does not have electricity, then said household's SMEB would be reduced. This item is excluded when calculating the rural SMEB.
- **Soap (Laundry and bathing)**: Assumes that over the course of one month the entire household uses two bars of soap for washing and another two bars for bathing.
- **Electricity Charges (phones, torch):** Assumes that urban-based households are incurring charging costs for either a mobile phone and/ or torch, regardless of household size. This may not be the case for all households but is included in the urban SMEB. This item is excluded when calculating the rural SMEB.
- **Other Exclusions**: The survival basket also excludes education costs (notably because public primary education is free), health service fees and basic medicines, and agricultural input costs. Further information is being collected and is available upon request.

In addition, for the construction of the MEB, it is important to note the following:

- **Food Basket**: Constructed based on food items that are commonly available across the country and widely consumed by the typical Malawian household.
- **Meat, Eggs, and Dairy**: The food component of the SMEB excludes both meat and milk, because these products are rarely consumed, especially by those classified as extremely vulnerable. The basket further assumes that the average weight of an egg is approximately 50 grams. This SMEB thus translates into the consumption of approximately 14 eggs per month for a household size of 4.5.

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