

SAVING
LIVES
CHANGING
LIVES

Technical Report

Estimating Minimum
Expenditure Baskets
and Expenditure
Gaps in Cambodia

All Rights Reserved © WFP 2020

**World Food Programme (WFP)
Cambodia Country Office**

House 108, Street 63, Sangkat Boeung Raing,
Khan Daun Penh. Phnom Penh, Cambodia
Telephone: +855 23 210 943

Disclaimer

The opinions expressed in this report are those of the author/researcher, and do not necessarily reflect those of the World Food Programme. Responsibility for the opinions expressed in this report rests solely with the author/researcher. Publication of this document does not imply endorsement by WFP of the opinions expressed.

For further information please contact:

Benjamin Scholz, Head of Research, Analysis
and Monitoring (RAM),
benjamin.scholz@wfp.org

Yav Long, Vulnerability Analysis and Mapping
Officer (VAM), yav.long@wfp.org

Image Credits

Cover: WFP/Para Hunzai

Page i: WFP/Christopher Rompre

Page ii: WFP/John Jeong

Page 2: WFP/Para Hunzai

Page 6: WFP/Christopher Rompre

Page 14: FAO/Sterling Riber





Contents

1. Background	ii
2. Methods	2
2.1 Consultations	4
2.2 Data Sources	4
2.3 Data Analysis	4
2.4 Rights-based Approach	5
2.5 Expenditure Gap	5
3. Results	6
3.1 Minimum Expenditure Basket	7
3.2 Expenditure Gap	10
3.3 Ecological Zones	11
3.4 Covid-19	13
4. Recommendations	14



1. Background



Prior to the COVID-19 crisis, Cambodia had been making great strides in GDP growth and poverty reduction over the previous two decades. However, many Cambodians remain economically vulnerable and the Government recognizes that more extensive social protection measures are required to ensure that vulnerable groups can meet their essential needs for a standard of living in line with Cambodia's ambitions to graduate into upper middle income country status (National Social Protection Policy Framework 2016-2025).

Cambodia is highly vulnerable to climatic shocks, with floods and droughts occurring on a regular basis. These climatic events can have a direct impact on households' incomes, livelihoods, and, by extension, their food security and access to basic services. Furthermore, the actions taken by households to cope with shocks, such as reducing food consumption, withdrawing children from school, or selling productive assets, ultimately increase their vulnerability. This further undermines hard-won development gains and contributes to the transmission of poverty from one generation to the next.

Understanding economic access to essential needs and how this might change during climatic, health and economic shocks is thus critical to ensuring that vulnerable groups can maintain the access they need to goods and services required for a healthy, productive life. This technical report thus attempts to analyse the cost of essential needs in Cambodia by developing a Minimum Expenditure Basket (MEB) and calculating the expenditure gap of households most vulnerable to shocks.

2. Methods



A Minimum Expenditure Basket (MEB) is defined as what a household requires to meet their essential needs, on a regular or seasonal basis, and its cost. The MEB captures average, recurrent household needs that can be covered fully or partially through the market. Hence, the MEB is a monetary threshold that can be understood as the minimum cost of living to ensure basic living standards. The MEB can also be used to calculate the gap between the MEB and what a target group of the population can cover themselves – in other words, how far a certain group of households are in monetary terms from being able to cover their essential needs.

It is important to note that the MEB is not a cash transfer amount. The Cash Learning Partnership (CaLP) provides a useful way to understand the link between MEB and the final transfer value:

An MEB can be a useful foundation [for calculating] the transfer amount, but it is a mistake to think they always need to coincide. An MEB is most useful when used as a threshold for collective reference to support the calculation of the transfer value of multisectoral and/or

multipurpose [cash and voucher assistance]. Multipurpose cash is usually calculated as a contribution to an MEB... There is significant additional work required to move from MEB to transfer amount, usually balancing the population's needs with budgetary and political constraints. Transfer values are closely dependent on the capacity of the household to cover needs with their own resources, other assistance received, what the programme aims to achieve, local acceptance of the proposed amount, and budget constraints, among others.¹

There are a number of different approaches that can be used to understand economic access to essential needs. In this technical report, real expenditure data captured from a household survey is used to determine a basket of essential goods that is based on real demand patterns. Subsequently, a rights-based lens was then applied to ensure that these expenditures were sufficient to access rights as defined by international humanitarian law. For this analysis, the MEB methodology developed by the World Food Programme (WFP) was followed.

¹ Practical Support Tools for Minimum Expenditure Basket (MEB) Decision Making. CaLP, September 2019.

2.1 Consultations

To better understand data availability and the key categories of items that should be included in this analysis, relevant stakeholders in Cambodia were consulted, including the National Institute of Statistics (NIS), UNDP, UNICEF, WHO, FAO and the World Bank.

2.2 Data Sources

The MEB and expenditure gap calculations in this technical report draw from data in the Cambodia Socio-Economic Survey (CSES) 2014 which contained expenditure data suitable for identifying a basket of essential needs (Table 1).

The analyses presented in this technical report use the CSES 2014 data because it also represents a national dataset (including Phnom Penh). These calculations can and should be updated when data from new rounds of the CSES become available.

Official Consumer Price Index (CPI) data for Cambodia was used to inflate the 2014 household food and non-food expenditure data to 2020 price levels.

2.3 Data Analysis

First, a reference cohort of households was established from the dataset based on the following criteria:

- i. Total expenditure values falling between the 2nd and 4th quintiles;
- ii. Adequate food security (acceptable food consumption scores, i.e. 39 and higher);
- iii. Did not utilize any negative coping strategies.

The reference cohort was defined as a group that likely has sufficient expenditures to meet their essential food and non-food needs. Descriptive statistics were then prepared for both the food and non-food expenditures of this reference cohort.

A food basket was then established to understand if the consumption patterns were in line with what would be expected of a household with the food consumption required to live a healthy and active life. To do this, certain items were identified to represent the categories captured in the food expenditure module (see Table 2 for the full list). The kilocalories of each food

Table 1. Summary of expenditure data sources

Cambodia Socio-Economic Survey (CSES) (NIS, 2014)	
Expenditure data	Comprehensive expenditure data (cash, credit, own production)
Food security data	Food consumption and coping strategies
Sample	12,000 households, disaggregated by rural, other urban and Phnom Penh, and by 19 regions.

were identified and the quantities were derived from the expenditure data to determine if the calories in the basket were in line with what one would expect of a person living a healthy and active life from a rights-based perspective.

Table 2: Food categories and selected representative commodity

Category	Selected Food
Cereals	Rice
Fish	Mud fish
Meat	Pork
Egg	Duck egg
Diary	Milk
Oil	Vegetable oil
Veg	Morning glory
Tuber	Sweet Potato
Pulses	Soybean/green bean
Fruit	Banana
Salt, sugar, condiment	Salt/sugar
Food Away from Home	
Non-Alcoholic Beverage	Coke
Alcohol	Beer

A non-food basket was also determined from the expenditure categories, as displayed in Table 3.

Table 3: Non-food categories

Health	Clothing
Transport	Furnishing, salary
Communication	Education
Housing	Recreation
Miscellaneous, goods and services	Tobacco

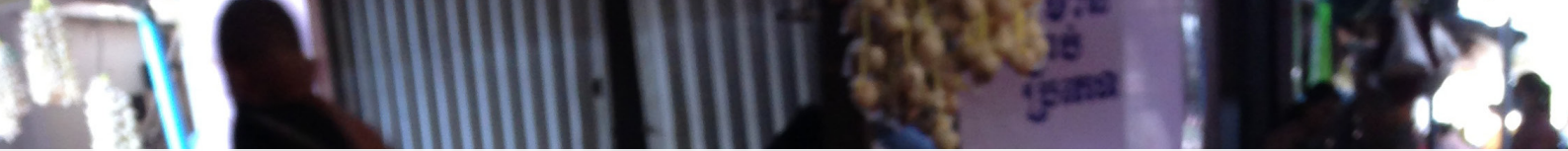
2.4 Rights-based Approach

The purpose of this analysis was to look at access to essential needs from a rights-based perspective, so food and non-food baskets were analysed with the expectations of what one would expect for households to have a decent standard of living in line with Cambodia's economic growth. For the food basket, a 2,300 kilocalorie line was established based on the demand patterns observed in the data (the 2,100 kilocalorie line set out in the Sphere standards was considered too low for a non-emergency setting where vulnerable households are living active lives).² The health-seeking behaviour demonstrated by the reference cohort also demonstrates an adequate level of health-seeking behaviour (2.4 visits to the health centre per household on average over the last 30 days).

2.5 Expenditure Gap

To determine the size of transfer required to enable households in the bottom quintile to afford the essential needs basket identified, the food and non-food expenditures were calculated for this group as well and compared with the reference cohort. The bottom quintile was selected for this analysis as a proxy for households which are most likely to be unable to afford their essential needs during a shock.

² Sphere Association. The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response, fourth edition, Geneva, Switzerland, 2018. www.spherestandards.org/handbook



3. Results



3.1 Minimum Expenditure Basket

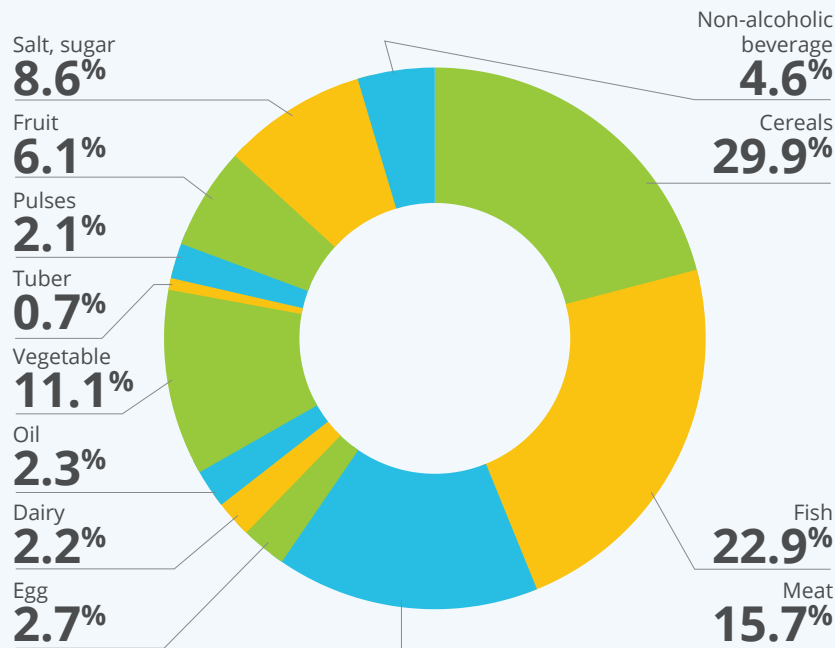
Utilizing the CSES dataset, food and non-food baskets were developed for the reference cohort at national level. Tables 4 and 5 display the costs derived for rights-based food and non-food baskets, which were then inflated using official Consumer Price Index (CPI) data to be in line with the prices expected in 2020.

Table 4: Food Expenditure Basket for Reference Cohort

Food group	Average expenditure per capita per month (Riels)	Expenditure inflated to 2020 prices (Riels)
Cereals	27,251	33,302
Fish	29,816	36,435
Meat	20,437	24,975
Egg	3,573	4,367
Dairy	2,890	3,532
Oil	2,965	3,624
Vegetable	14,512	17,734
Tuber	952	1,164
Pulses	2,711	3,313
Fruit	7,944	9,708
Salt, sugar, condiment	11,164	13,643
Non-alcoholic beverage	6,042	7,384
Total*	130,258	159,181

* Excludes food away from home, insects, or alcohol

Figure 1: Breakdown of food expenditure per food group



The reference food basket developed above corresponds to ~2,300 kilocalories, which is line with what should be expected of a healthy, active population in Cambodia. As shown in Figure 1, the food basket is diverse, with fish, meat and vegetables comprising 50% of total expenditures.

The total minimum expenditure basket for the reference cohort was therefore calculated at **323,614 riels per capita per month**, which is approximately **\$79.83**.³

The average household size in Cambodia is 4.6, so per household a minimum expenditure basket would cost **\$367.20 month**. Figure 2 displays the breakdown of the total minimum expenditure basket.

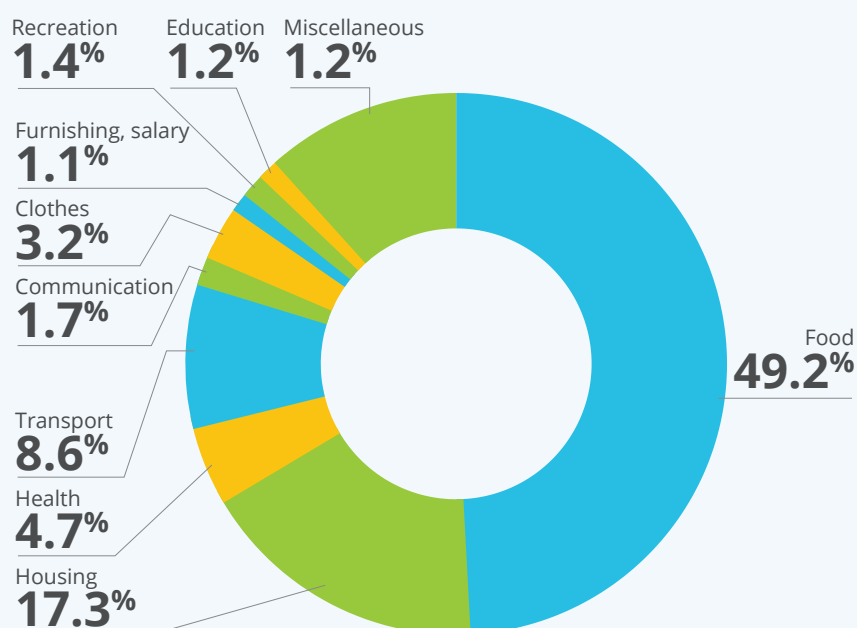
³ All currency conversions in this technical report use an exchange rate of 4,054 riels per \$1.

Table 5: Non-food Expenditure Basket for Reference Cohort

Non-food group	Average per capita expenditure per month	Expenditure inflated to 2020 prices
Housing	55,752	56,025
Health	13,676	15,153
Transport	30,489	27,726
Communication	5,451	5,478
Clothes	8,620	10,321
Furnishing, salary	3,307	3,684
Recreation	4,190	4,606
Education	3,610	3,737
Miscellaneous, goods and services	35,569	37,703
Total*	160,662	164,433

*Excluding tobacco

Figure 2: Breakdown of total minimum expenditure basket to cover essential needs



3.2 Expenditure Gap

To estimate the expenditure gap of vulnerable households, the same procedure as outlined above was followed to estimate the cost of the food and non-food basket for households in the lowest expenditure quintile group (see Table 6). Households in the lowest expenditure quintile can be considered equivalent to the poorest segment of the population. Analysing the difference between the average expenditure of poor household (lowest expenditure quintile) and the normative monetary threshold established by the MEB (reference cohort) provides us with the expenditure gap of poor households to meet their essential needs.

Based on the data, the gap was calculated at **\$20.85 USD per person per month** — for

an average size household (e.g., 4.6 people/household) this results in an expenditure gap of **\$95.90 per month** (Table 7).

This value was then compared with the reference cohort to produce the calculated gap of **\$20.85 USD per person per month** — for an average size household (e.g., 4.6 people/household) this results in an expenditure gap of **\$95.90 per month** (Table 7).

These findings suggest that, prior to the onset of COVID-19, a transfer of at least **\$95.90** per month to vulnerable households (i.e., \$20.85/person * average household size of 4.6) would be required to enable these households to meet their essential needs.

Table 6: Food and non-Food Expenditure Basket for Quintile 1

Expenditure Group	Average expenditure per capita per month (Riels)	Expenditure inflated to 2020 prices (Riels)
Food	113,579	138,796
Housing	46,473	46,701
Health	7,037	7,797
Transport	8,336	7,581
Communication	2,767	2,781
Clothes	5,942	7,115
Furnishing, salary	2,790	3,108
Recreation	1,931	2,123
Education	709	734
Miscellaneous, goods and services	21,097	22,363
Total*	210,661	239,098

* Excludes food away from home, insects, or alcohol and tobacco

Table 7. Expenditure Gap Calculation (Reference Cohort – Quintile 1)

Expenditure Group	Reference Cohort		Quintile 1		Expenditure Gap per person/month (USD)
	Expenditure inflated to 2020 prices (Riels)	Total expenditure per person / month (USD)	Expenditure inflated to 2020 prices (Riels)	Total expenditure per person / month (USD)	
	A	B	C	D	F = (B-D)
Food	159,181	39.26	138,796	34.24	5.02
Non-Food	164,433	40.57	100,302	24.74	15.83
Total	323,614	79.83	239,098	58.98	20.85

3.3 Ecological Zones

As prices and expenditures can vary substantially by geography, food and non-food reference cohort baskets were also calculated for each ecological zone in Cambodia (Figure 3). The baskets were all established based on the expenditures in each zone and inflated to 2020 prices. The costs of the minimum expenditure baskets were similar in Tonle Sap, Plateau and the Plains zones, somewhat higher in the Coastal zone and, as might be expected, substantially higher in Phnom Penh (see Figure 4).

For each zone, the expenditure gap was also calculated to understand the transfer size required for each of these areas. Whilst the minimum expenditure baskets were lower in Tonle Sap and the Plateau regions, the transfer required to ensure vulnerable households are able to afford their essential needs were lower than in the Coastal region and Phnom Penh as the expenditure gap between the bottom quintile and reference cohort was substantially lower (see Table 8). For households in the Tonle Sap region, a transfer of \$26 USD per person would be required compared to the Coastal region where a transfer of \$19 USD would be required per person.

Figure 3: Map of Ecological Zones

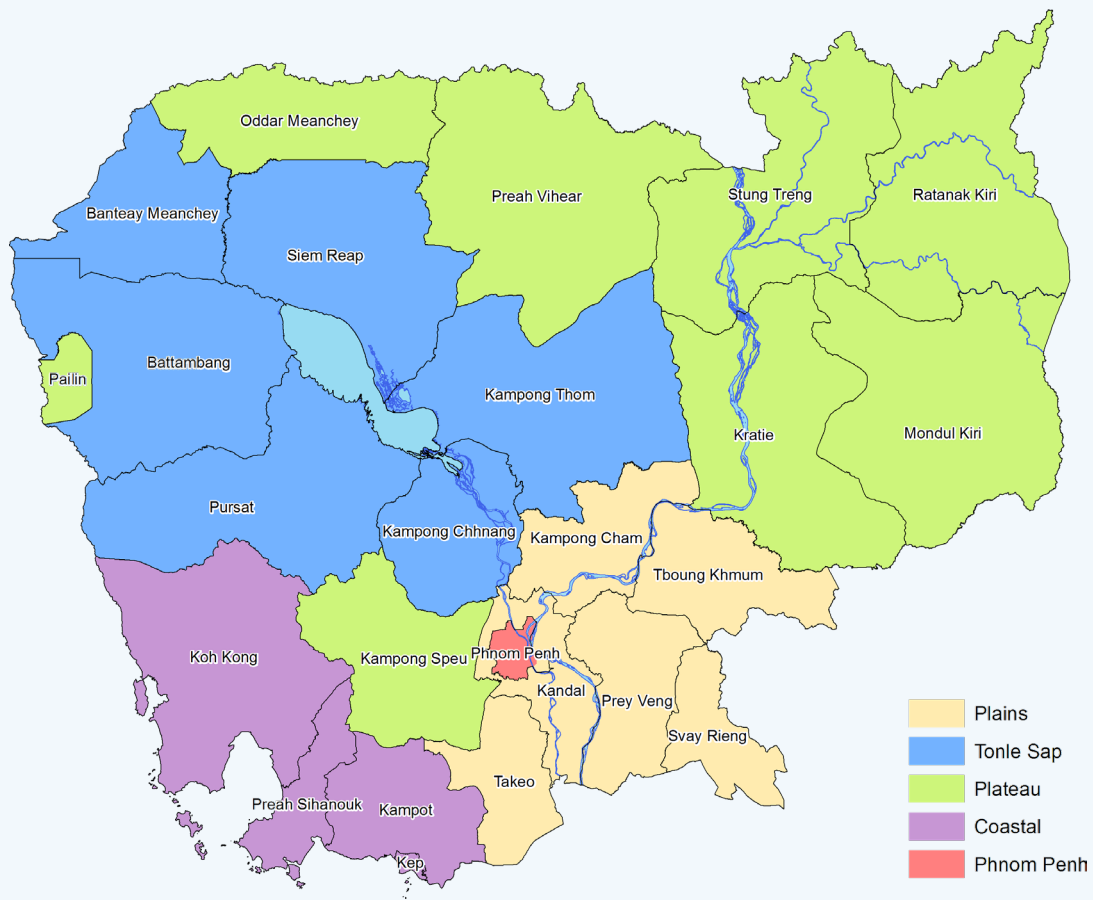


Figure 4: Minimum Expenditure Baskets in each of the ecological zones

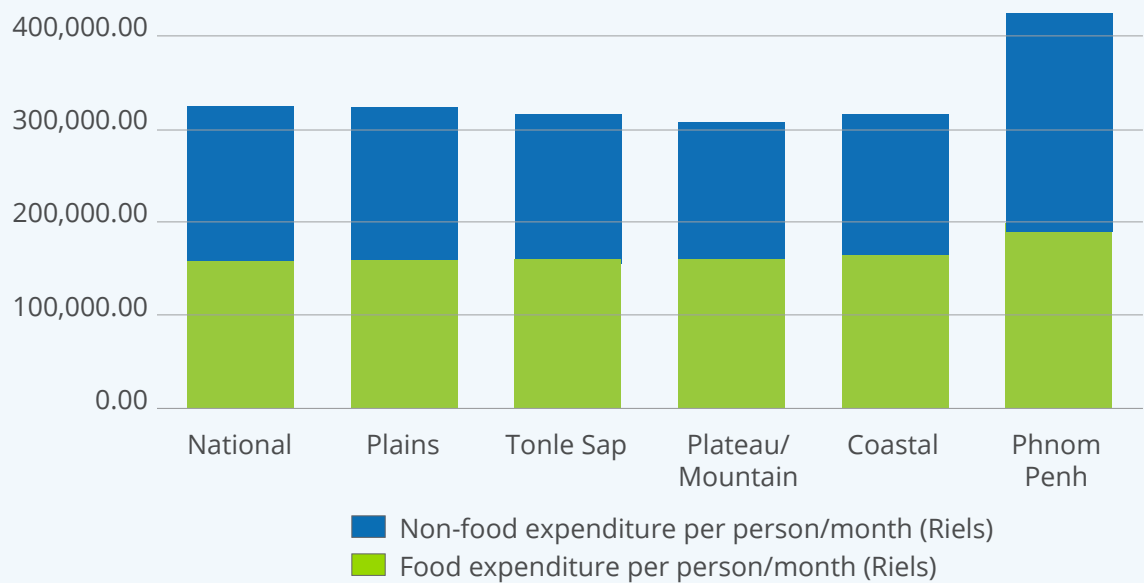


Table 8: Minimum Expenditure Baskets and Expenditure Gaps in each of the ecological zones

Expenditure Group	Reference Cohort		Quintile 1		Expenditure Gap per person/month (USD)
	Expenditure inflated to 2020 prices (Riels)	Total expenditure per person / month (USD)	Expenditure inflated to 2020 prices (Riels)	Total expenditure per person / month (USD)	
	A	B	C	D	F = (B-D)
National	323,614	79.83	239,098	58.98	20.85
Plains	323,033	79.68	246,827	60.88	18.80
Tonle Sap	317,225	78.25	225,214	55.55	22.70
Plateau/ Mountain	306,352	75.57	221,508	54.64	20.93
Coastal	316,993	78.19	250,374	61.76	16.43
Phnom Penh	423,874	104.56	380,265	93.80	10.76

3.4 Covid-19

As a result of the global COVID-19 pandemic that began in early in 2020, many countries have implemented stringent public health measures which created significant economic impacts on large parts on their populations. Cambodia is a country that is expected to face a major economic downturn, particularly due to openness of the economy and the drop in tourism and garment exports. Some businesses have also had to close or limit their operations due to social distancing measures resulting in lost income or jobs for many. More than

100,000 migrants also returned from Thailand, leaving behind their jobs. Many of their households would have been reliant on the remittances sent home by these households. As a result, it is expected that it will become much harder for households to afford their essential needs. Whilst there were some price increases for food items in March when the pandemic was declared and cases were rising in Cambodia, prices have since stabilized.

4. Recommendations



Understanding the cost of essential needs and the expenditure gaps faced by vulnerable households to meet these needs can help us to design effective interventions to reduce the vulnerability of these groups so that they can access a standard of living in line with the economic growth experienced within Cambodia over the last two decades. This analysis indicates that, prior to COVID-19, the cost to meet essential needs in Cambodia (i.e., the minimum expenditure basket) was estimated at \$79.83 per person per month (**\$367.22** per household per month) across the country. For vulnerable households (i.e. Quintile 1), an expenditure gap of around **\$20.85** per person per month separates them from meeting their essential needs in a time without shock. Following a climatic shock, such as flood or drought, however, the capacity of these households to spend will be substantially reduced, requiring perhaps an even larger transfer to meet their essential needs.

Government and humanitarian agencies must, of course, make important subjective decisions regarding what portion of the expenditure gap – and whether that gap has increased during a time of shock, e.g., due to loss of income – their resources allow them to meet. Again, the MEB is not equal to the transfer value – and in most cases, neither is the expenditure gap. The MEB is only a tool for decision and policy makers to inform their decision-making process when setting the cash transfer value.

Finally, as noted in the Methods section, the MEB is only useful and relevant if it is updated regularly. In this regard, WFP will update this MEB analysis when the 2019/20 CSES data is available. Please note that the MEB for 2020 (and 2021) is subject to change as the consumption module in the 2019/20 CSES, which is the basis for the MEB calculation, follows a different structure as compared to the 2014 CSES. Also, household consumption patterns may have evolved considerably since 2020 due to the economic effects of the COVID-19 pandemic. The MEB included in this report, which was calculated relying on an estimate for the inflation rate for the year 2020, should therefore be considered as tentative.



World Food Programme Cambodia

House 108, Street 63/corner Street 208, Sangkat Boeung Raing, Khan Daun Penh,
P.O. Box 937, Phnom Penh / Tel: (855-23) 210943, 212137-8, Fax: (855-23) 218749
Visit: www.wfp.org/countries/cambodia Contact: WFP.PnomPenh@wfp.org