



# Paying the Price

THE IMPACT OF THE GLOBAL FOOD CRISIS  
ON WATER, SANITATION AND HYGIENE

2023

# Acknowledgements

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Cover image: Girls fetch water at a borehole in Jonglei State, South Sudan. Photo by Will Baxter/CRS

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# List of Abbreviations

CP	Country Program
CRS	Catholic Relief Services
CVA	Cash and voucher assistance
CWG	Cash Working Group
EARO	East Africa Regional Office
FGD	Focus group discussion
GBV	Gender-based violence
HH	Household
HRD	Humanitarian Response Department
IPC	Integrated food security Phase Classification
LACRO	Latin America and the Caribbean Regional Office
MEAL	Monitoring, evaluation, accountability and learning
MHM	Menstrual hygiene management
MPCA	Multipurpose cash assistance
SARO	Southern Africa Regional Office
SBC	Social and behavior change
SSP	South Sudanese pound
USD	United States dollar
WASH	Water, sanitation and hygiene
WFP	World Food Program

# Executive Summary

Communities across the world are experiencing life-threatening levels of hunger and malnutrition on an unprecedented scale. Families are struggling to meet their food needs due to the effects of conflict, displacement, climate change, COVID-19 and rising costs. Food inflation has put people under tremendous strain, while supply chain interruptions have slowed humanitarian operations and disrupted local and regional markets.

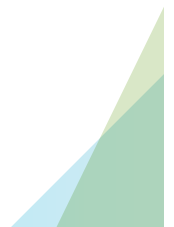
These challenges come at an already difficult time. Many governments have had to divert resources and funding to address the impacts of COVID-19 on people's livelihoods, health and other aspects of their lives. As costs rise, the potential for further conflict and instability continues to alarm the world's most vulnerable countries, where so many rely on imported food to feed their families and survive.

The ongoing global food crisis<sup>1</sup> is having a direct impact on people's lives and livelihoods in vulnerable communities that are already living on the edge of poverty. With families unable to afford to buy food and supplies, they are forced to make difficult decisions to meet their needs. In an effort to better understand the tradeoffs families make regarding WASH services and products when they are faced with rising food prices--and their capacity to adopt adequate WASH behaviors—CRS conducted a study across four countries: **GUATEMALA**, **SOUTH SUDAN**, **MALAWI** and **TIMOR-LESTE**.

The results of this work highlight the varied and increasingly risky coping strategies poor households are adopting, across all contexts, for example, reducing expenditure on essential items and services—such as soap, water, or sanitary pads—to afford rising food costs. This situation can have direct effects on the risk of water-related infectious disease outbreaks on quality of life, and can potentially lead to long-term and irreversible effects especially for the most vulnerable individuals, households and communities. This report concludes with key recommendations for emergency teams operating within this context.

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1. World Food Program. 2023. [A global food crisis](#).



# 1. Introduction and Background

Communities across the world are struggling to overcome multiple challenges to secure enough food to feed their families. According to the *2023 Global Report on Food Crises*, nearly 258 million people in 58 countries and territories were in crisis or worse acute food insecurity (IPC/CH Phase 3 or above, or equivalent)<sup>2</sup> in 2022 – up from 193 million in 53 countries and territories in 2021.<sup>3</sup> Several factors in recent years have led to the diverse conditions of acute food insecurity, which experts say could affect communities through 2025. These are informally referred to as the Four Cs:



CONFLICT



CLIMATE  
CHANGE



COVID-19



RISING COST  
OF FOOD

In an unprecedented move, the four related global clusters covering the Food Security, WASH, Health and Global Nutrition sectors released a [joint statement on food crises](#) in 2022 stating that, “*Anticipatory action and rapid response must therefore be multisectoral ... no single sector or intervention can prevent a crisis from becoming a famine, but combined our impact will be far more targeted, pre-emptive, and effective.*”

Communities are experiencing life-threatening levels of hunger and malnutrition on an unprecedented scale. The current economic crisis, conflict (e.g., in Ukraine) and COVID-19 have collectively raised food prices globally over the past few years.<sup>4</sup> These high, volatile global food prices—coupled with the loss of livelihoods, resulting in increased poverty—mean that families have to make increasingly hard choices on what to pay for with the limited resources they have. This includes for key household WASH supplies, such as soap, sanitary pads and water. Without access to safe drinking water, households, are exposed to water-related infectious diseases<sup>5</sup> which are further compounded by increased exposure to gender-based violence (when travelling long distance to fetch water for example). Additionally, the lack of availability of basic items like soap and sanitary pads creates additional barriers in adopting proper hygiene practices.

CRS’ humanitarian response efforts to this crisis are integrated, and include WASH and food security. To better understand the impact of the global food crisis on household purchasing power and the prioritization of WASH, CRS commissioned a study in late 2022 across [GUATEMALA](#), [MALAWI](#), [SOUTH SUDAN](#) and [TIMOR-LESTE](#). By exploring key questions, CRS sought to establish a deeper understanding of the unseen consequences of the global food crisis so as to provide guidance to responding CRS emergency teams on multi-sectoral approaches.

258 million

PEOPLE IN  
58 COUNTRIES  
AND TERRITORIES  
WERE IN CRISIS OR  
WORSE ACUTE FOOD  
INSECURITY IN 2022.

2. IPC/CH Phase 3+ refers to emergency, crisis or catastrophic levels of food insecurity, collectively known as “acute food insecurity.”

3. Global Network Against Food Crises. 2023. [2023 Global report on food crises](#).

4. World Food Program. 2023. [A global food crisis](#).

5. World Health Organization. 2022. [Introduction to water-related infectious diseases](#). Module 1.1.



In Timor-Leste, 68% of households said they had spent more on food than the year before.

Photo by Jen Hardy/CRS

## 2. Methodology

### OVERVIEW OF GUIDING QUESTIONS

This study focused on four geographically and contextually distinct countries (see [Section 3](#)) and aimed to explore the effects of global food crisis-related inflation on household WASH expenditure. Specifically, CRS examined the trade-offs that families make due to rising food costs. To this end, the study addressed several key themes and questions, which, along with data sources, are summarized in [Table 1](#) in the Annex.

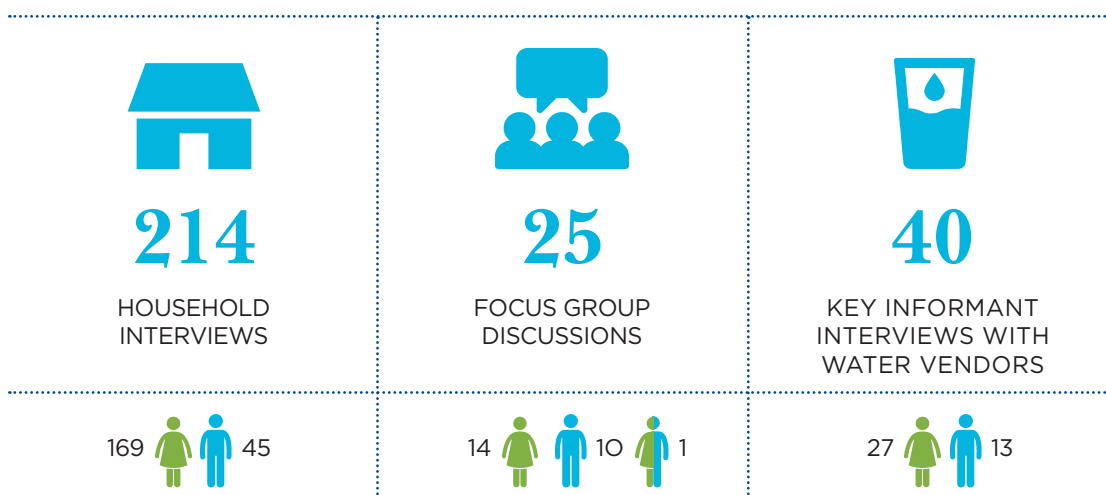
### METHODS

The study used a mixed-methods approach. Qualitative methods included focus group discussions with male and female members of vulnerable communities. Quantitative methods included household interviews. Semi-structured key informant interviews with vendors also took place and included both quantitative and qualitative elements. Additionally, a literature review of research and reports published by other actors was conducted to inform the study. Finally, incorporated into the study were analyses of secondary market data regarding currency exchange rates, inflation trends and localized price trends for essential goods.

### SAMPLING

In total, CRS conducted 214 household interviews, 25 focus group discussions and 40 key informant interviews (with vendors of WASH items and services) across the four countries. Household and FGD respondents in [TIMOR-LESTE](#), [MALAWI](#) and [GUATEMALA](#) were not direct participants in CRS programming. However, due to the blanket nature of distributions in Pibor County in [SOUTH SUDAN](#), selected HH and FGD participants were CRS program participants.

Figure 1. Sampling summary





### **Household Interviews**

The 214 household interviews included 45 men and 169 women. CRS determined the sample size based on operational considerations given the limited timeframe and resources available for data collection, and with the aim to conduct at least 50 interviews per country. CRS identified households via random selection in all countries and in collaboration with local leaders. For the household interviews, CRS teams sought to speak with the person most responsible for making decisions around expenditure on food and WASH necessities—in many cases, this was the female head of household. See [Table 2](#) ‘Sampling per country’ in the Annex for more details.

### **Focus Group Discussions**

In the study, 25 FGDs took place. CRS determined the sample size by geographic location and gender, with the aim to have at least three FGDs with each characteristic group to reach saturation. Participants in the FGDs were selected based on the “typical case” approach, meaning that they represented a typical family in their community. Local leaders or focal points provided consultation on the selection of the FGD participants before they were invited to take part. See [Table 3](#) ‘Focus Group Sampling by Location and Gender’ in the Annex for more details.

### **Key Informant Interviews**

Sampling for KIIs with vendors was largely based on convenience. CRS determined the sample size based on the type of vendor and location, with the aim to reach satisfactory levels of saturation. The focus was on vendors who sold WASH items and services—in particular, soap, sanitary pads and water—henceforth referred to as ‘vendors.’ The teams aimed to speak to 10 vendors per country, covering a mix of those who sold soap, sanitary pads and water. It was assumed that vendors who sold soap and menstrual hygiene pads might not sell water, and those that sold water might not sell hygiene items. This was correct in some countries; however, in [TIMOR-LESTE](#), all vendors sold all items. [Table 4](#) in the Annex gives a detailed breakdown.

## **ANALYSIS**

CRS analyzed the quantitative data from the household surveys and vendor interviews using descriptive statistics. Results were calculated using Microsoft Power BI. Notes from FGDs and the qualitative portions of vendor interviews were coded and compared according to characteristics of interest. Once preliminary analyses were completed, CRS staff from [GUATEMALA](#), [MALAWI](#), [SOUTH SUDAN](#) and [TIMOR-LESTE](#) participated in a validation workshop to review the key findings. Finally, CRS presented the results to a group of WASH experts from different humanitarian organizations and research institutions.





## LIMITATIONS

Data collection took place in communities where CRS had no ongoing programming; the exception was **SOUTH SUDAN**, where CRS has long supported blanket targeting of households in Pibor County with food and WASH. Therefore, the sampling strategy in **SOUTH SUDAN** may have introduced bias into the results, assuming that CRS project participants were better off (more capable of meeting basic food and WASH needs) than those who had received no assistance.

Also in **SOUTH SUDAN**, given that participants were already familiar with CRS, respondent bias may have been introduced and should be kept in mind during interpretation. For example, although data collection processes included getting informed consent, it is possible that some people adjusted their responses based on what they felt would be most acceptable to the enumerator, or to avoid being left out of potential future assistance.

Finally, due to the limited sample size, household survey presented in this study cannot be considered representative. Similarly, the use of purposive sampling for FGDs and semi-structured KIIs with vendors necessitates caution during interpretation, as results based on qualitative approaches cannot be extrapolated or generalized to the broader population. Despite these limitations, this study illustrates key trends and challenges that could be validated through future investigation.



In Malawi, 70% of vendors said they had fewer daily customers than the previous year, and 40% said their customers were buying fewer WASH items.

Photo by Dooshima Tsee/ CRS



## 3. Focus Countries

In the four contexts where the study was organized, CRS has country programs and ongoing programming in food security/livelihoods and WASH. Countries were selected based on the following criteria:

- **Geographical representation** across regions where CRS has ongoing programs (EARO, SARO, Asia and LACRO).
- **Experience of acute food insecurity** (IPC phase 3 and above) between 2020 and 2022.
- **Experience of protracted crises affecting water provision and access to sanitation**; extreme vulnerability to natural hazards; and **public health challenges** such as cholera.

The topline profiles highlight key contextual information across the 4 countries studied, including the number of food-insecure people, key drivers of food insecurity, WASH environment and currency used.

Figure 2. Focus country contexts

## GUATEMALA



**NO. FOOD INSECURE** 3.9 million people  
(22% of the population)\*

**CURRENCY** Guatemalan quetzal

### KEY DRIVERS

- Loss of jobs and income
- COVID-19 pandemic
- Reduction of staple food reserves
- High food prices

### WASH CONTEXT

- Increased vulnerability of WASH infrastructure and communities to natural hazards (cyclones, floods, droughts).
- Strong associated nutrition risks.
- Poor sanitation coverage especially in rural areas.

\* IPC. June 6, 2022. [Guatemala: IPC acute food insecurity snapshot March 2022 - February 2023](#).

## MALAWI



**NO. FOOD INSECURE** 2.6 million people  
(13% of the population)\*

**CURRENCY** Malawian kwacha

### KEY DRIVERS

- Climate-related shocks
- Economic decline and currency devaluation
- High staple food prices

### WASH CONTEXT

- Ongoing cholera outbreak.
- Limited water and sanitation services in communities, and increased vulnerability of systems and communities to natural hazards (cyclones, floods, droughts)
- The WASH sector estimates that over 495,000 people are WASH insecure during the lean season.\*

\* IPC. August 8, 2022. [Malawi: IPC acute food insecurity analysis June 2022 - March 2023](#).

\*\* United Nations Office for the Coordination of Humanitarian Affairs. February 2019. [Malawi](#).

## SOUTH SUDAN



**NO. FOOD INSECURE** 6.64 million people  
(54% of the population)\*

**CURRENCY** South Sudanese pound

### KEY DRIVERS

- Economic decline and currency devaluation
- Conflict and insecurity
- Low agricultural production
- Climatic shocks

### WASH CONTEXT

- Very poor access to water and sanitation services both in formal and informal camps and communities. Limited access to WASH items due to safety issues.
- High rate of waterborne infectious diseases.
- Long distances to water points and poor latrine coverage expose women and girls to assault.

\* IPC. November 23, 2022. [South Sudan: IPC acute food insecurity and malnutrition analysis July 2022 - July 2023](#).

## TIMOR-LESTE



**NO. FOOD INSECURE** 300,000 people  
(22% of the population)\*

**CURRENCY** US dollar\*\*

### KEY DRIVERS

- Reduced household purchasing power
- Flooding
- COVID-19 pandemic

### WASH CONTEXT

- Generalized use of unprotected water sources.
- Limited sanitation coverage.
- Exposure to natural hazards.

\* IPC. February 14, 2023. [Timor-Leste: IPC acute food insecurity analysis November 2022 - September 2023](#).

\*\* Note: Timor-Leste is [dollarized](#).



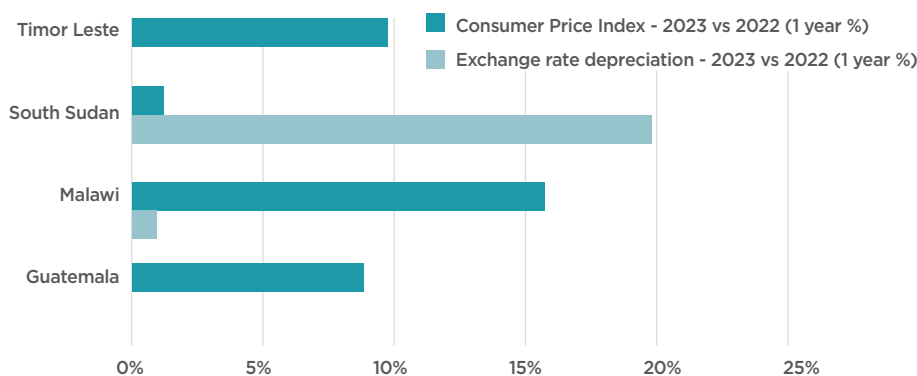
In Guatemala, only 55% of people living in rural areas have access to basic sanitation.  
Photo by Luis Cocon for CRS

# 4. Key Findings

## FOOD PRICES

Looking at publicly available secondary data,<sup>6</sup> all four country contexts experienced inflationary trends for food and nonfood items. In **SOUTH SUDAN**, the depreciation of the South Sudanese Pound (SSP) from 2022 to 2023 was most pronounced (20%), while annual inflation was most pronounced in **MALAWI** (16%). Staple food preferences varied. Examples are provided in the below Figure 3 for rice, maize, edible oil and fuel, where significant month on month and year on year price increases took place at varied times since 2021. Inflation and depreciation trends in **GUATEMALA** were relatively less pronounced, compared to those of **SOUTH SUDAN** and **MALAWI**. Nevertheless, wholesale prices for key staple foods in **GUATEMALA** rose more rapidly than national inflation, which stood at 8% on average. The national currency, the Guatemalan quetzal, has been relatively stable. The dollarized economy in **TIMOR-LESTE** likely contributed to relatively low inflation trends in comparison over the past year (9%).

Figure 3. Year-on-Year Depreciation/Inflation in Focus Countries (2023 versus 2022)



Notes on graphic: Dollarization meant currency was stable in Timor-Leste. Currency depreciation was less pronounced in Guatemala.

The most recent inflation and exchange rate trends mask some of the very pronounced price increases that occurred across the four countries from 2021 to the present. These periods of price spikes were short lived in **GUATEMALA** and **TIMOR-LESTE**, but more persistent in **SOUTH SUDAN** and **MALAWI**. While some recovery has taken place in local commodity market prices in **TIMOR-LESTE** and **GUATEMALA**, prices remain elevated in **SOUTH SUDAN** and **MALAWI**.

6. For Figures 3 and 4, the South Sudan and Guatemala data was from national ministries and accessed through the FEWS NET Data Center. Malawi's Consumer Price Index was rebased. CRS collated International Monetary Fund and other data, and made the necessary adjustments to arrive as a continuous series for this analysis. The Timor-Leste data was from the World Food Programme and Trading Economics.

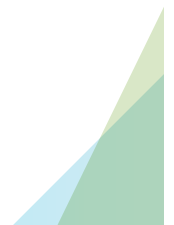


Figure 4: Staple Goods Max. Price Increases (Month/Month and Year/Year 2021-2023)

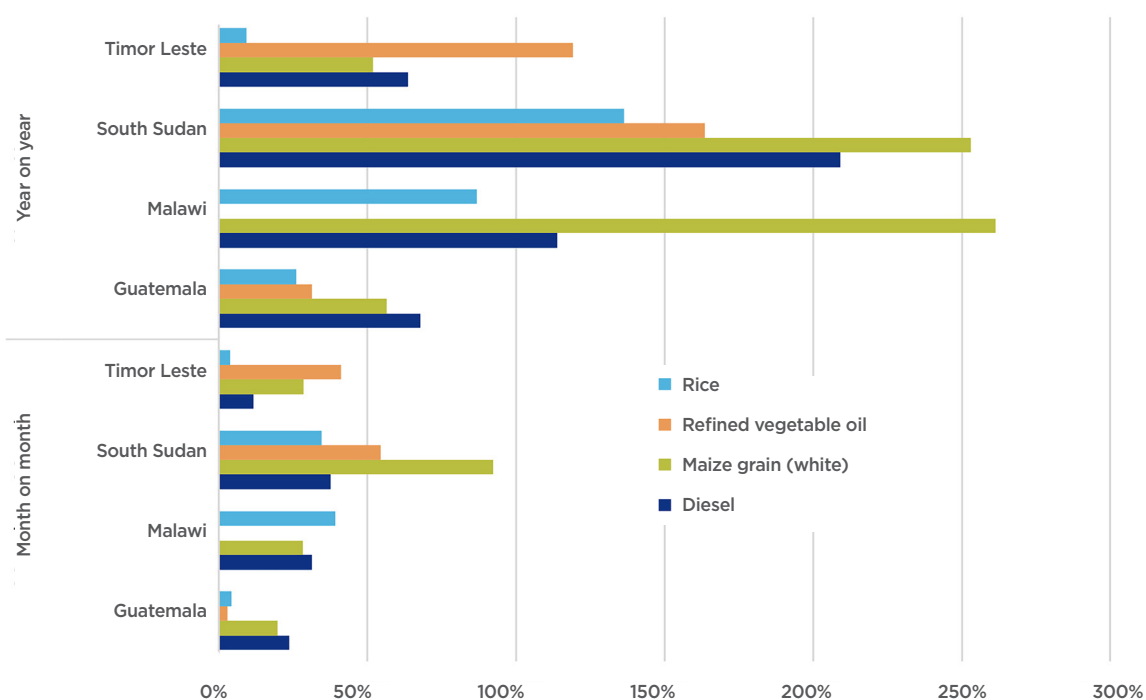


Figure 4 presents the maximum month-on-month and year-on-year price increases across the four countries, with prices doubling (year on year) for select commodities, albeit temporarily, in **TIMOR-LESTE**, **SOUTH SUDAN** and **MALAWI**. In **GUATEMALA**, by the last quarter of 2022, prices had increased by 50% year on year for maize and diesel. Pronounced monthly price increases also occurred. Price volatility can contribute to deteriorating purchasing power, by making household budgeting and planning more difficult in the context of elevated and uncertain market dynamics.<sup>7</sup> While each country was affected differently, the fact that food prices increased from the year earlier was a unanimous finding.

**Prices are skyrocketing for almost everything.**

FGD respondent, Mtagaluka, Malawi

## GENERAL WASH SITUATION

### TIMOR-LESTE

According to the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene:<sup>8</sup>

- 80% of people living in rural areas have access to drinking water; 96% in urban areas.
- 49% of people living in rural areas have access to basic sanitation; 74% in urban areas.

7. [International Dietary Data Expansion Project. 2015. Volatility of food prices standard deviations of prices over time.](#) Tufts University Friedman School of Nutrition Science and Policy.

8. WHO/UNICEF [Joint Monitoring Programme for Water Supply, Sanitation and Hygiene](#) (JMP).



## SOUTH SUDAN

- 70% of the population has access to drinking water services, but only 33% in rural areas.
- 41% of the population has basic sanitation services, but only 9% in rural areas.

## MALAWI

- 69% of people living in rural areas have access to drinking water; 86% in urban areas.
- 49% of people living in rural areas have access to basic sanitation; 48% in urban areas.

## GUATEMALA

- 94% of the population has access to drinking water services.
- 68% of the population has basic sanitation services—but only 55% in rural areas.

### **Collective results**

#### **In three of the four countries:**

- Participants perceived of their WASH needs as not being met. Only in **GUATEMALA** did participants in interviews and FGDs perceive of their WASH needs as being “mostly” met.

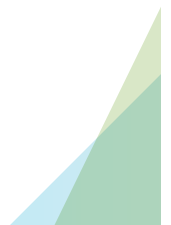
#### **All four countries showed:**

- Families displaying an awareness of proper hygiene practices, such as the correct use of latrines, hand-washing, and safe drinking water consumption.
- **Severe risks for public health, mental health and protection.**
- Limited access to safe sanitation.
- Vulnerability of toilets, latrines and excreta containment structures to natural hazards, and low capacity of HHs to rebuild them.
- Availability of **soap and sanitary pads in local markets**, but significant price increases, forcing people to make difficult choices between purchasing them or cutting back on their expenses
- Accessibility of sanitary pads, but a perception that they were unaffordable and a **“luxury item.”**
- A limited understanding of the connection between access to water, sanitation and hygiene practices and the occurrence of diarrheal diseases. Most families said they felt susceptible to diarrhea regardless of hygiene practices.
- Underestimation of the seriousness of diarrhea among adults and children, even in areas experiencing cholera. **The elderly and children were identified as the most susceptible and vulnerable groups to water-related infectious diseases.**

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**Sometimes we don't understand the reason for diarrhea because, even if we wash our hands and keep our house clean, we always get sick.**

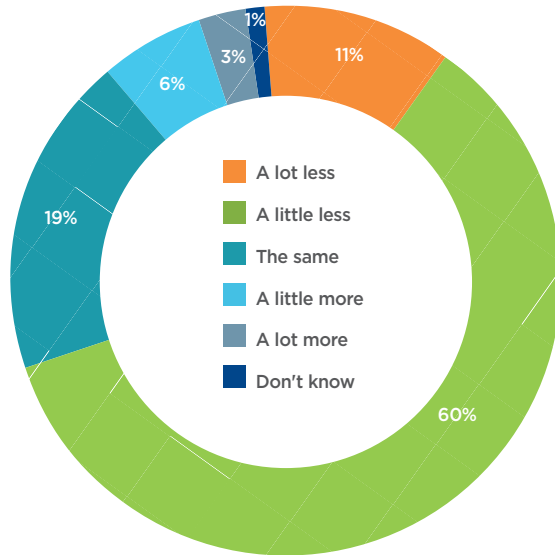
FGD respondent,  
Xucup, Guatemala



## HOUSEHOLD BUDGETING AND EXPENDITURE

At least 71% of the 214 respondents across all countries reported that their incomes had decreased compared to the previous year (Figure 5).

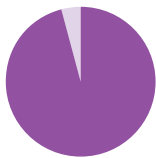
Figure 5: "Today, is your household income more or less than this time last year?"



Additionally, participating households in the four countries reported dedicating a larger portion of their budget to food than a year earlier. The most frequently cited response across countries to the question of the percentage of income being spent on food, compared to the year before, was "a lot more." The percentage of people who reported spending more on food includes:



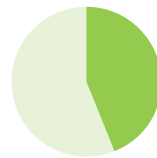
**TIMOR-LESTE**  
68% (39/57)



**GUATEMALA**  
96% (48/50)



**SOUTH SUDAN**  
46% (23/50)



**MALAWI**  
44% (25/57)

While incomes were falling, food prices were rising, so people had to spend a larger percentage of their income just to meet their basic food needs. This corroborates Engel's Law,<sup>9</sup> which states that, broadly speaking, the less you earn, the greater the percentage of your income you will spend on food consumption. When prices rise, poorer families tend to spend a greater percentage of their money on food compared to better-off ones. Through a gender lens, these families' budgeting decisions looked different based on local context, with men being more responsible than women in general for household budgetary decisions in **SOUTH SUDAN** and **MALAWI**, women being more responsible in **TIMOR-LESTE**, and responsibilities being more equally balanced in **GUATEMALA**.

9. Richie, Hannah. January 19, 2023. [Engel's Law: Richer people spend more money on food, but it makes up a smaller share of their income](#). Our World in Data.

When asked about their preference for humanitarian support to meet their basic needs (not specifically linked to WASH), both male and female FGD participants across the four countries expressed an overwhelming preference for cash assistance. While their responses confirm preferences, they should be understood in the context of underlying poverty and lack of income in general.

When it came to household priorities for WASH items amid reduced budgets, all respondents said they had either stopped or reduced buying soap and sanitary pads, primarily to allocate more funds to food. The top three reasons behind this decision were: “We prioritize food;” “We have reduced income” and “Increased prices of WASH items.” Thus, a direct result of family decisions to prioritize food was that they appeared to deprioritize WASH expenditure.

## COPING STRATEGIES

Coping strategies are “temporary responses to reduce or minimize effects of a stressful event or an unfavourable situation where food access is abnormally disrupted.”<sup>10</sup> They may be categorized as less severe and reversible or as increasingly risky and irreversible, i.e., damaging to people’s long-term health, livelihoods and dignity. In all four contexts, FGDs and HH surveys revealed a mix of adaptive, reversible mechanisms and more concerning irreversible strategies, which could put people at risk both in the short and long term.

**We choose cash [assistance] because we can use the money for other needs, such as children’s school fees, and to buy the goods we need the most.**

Female FGD respondent, Talimoro, Timor-Leste

**Table 1. Coping strategies cited, by country**

	Timor-Leste	Malawi	South Sudan	Guatemala
<b>Adaptive (reversible)</b>				
<i>Reducing expenditure on nonfood items</i>	X	X	X	X
<i>Buying less food or less-preferred foods</i>	X	X	X	X
<b>Distress/survival (irreversible/high risk )</b>				
<i>Reducing the number of meals eaten per day</i>	X	X	X	X
<i>Incurring debt to buy food</i>	X	X	X	
<i>Borrowing food</i>	X	X	X	
<i>Reducing consumption by adults so that children can eat</i>	X		X	
<i>Removing children from school</i>	X			X
<i>Consuming wild food</i>	X		X	
<i>Collecting firewood to sell</i>			X	

10. ACF International. 2010. [Food security and livelihood assessments: A practical guide for field workers](#). Page 92.

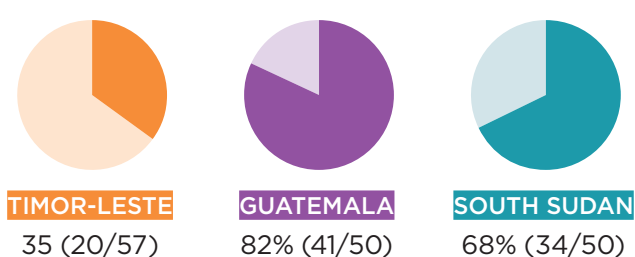


Fleeing conflict, Yar Wadok sought temporary refuge in Lake State, South Sudan, with her three-week-old baby and four other children. There is very poor access to water and sanitation services in the country, both in formal and informal camps and communities, and limited access to WASH items due to security issues. Photo by Sara Fajardo for CRS

Across the four countries, the following percentages of households were buying less food as a primary adaptive coping strategy:

- **TIMOR-LESTE** 72 (41/57)
- **GUATEMALA** 54% (27/50)
- **SOUTH SUDAN** 79% (45/57)
- **MALAWI** 90% (45/50)

A further adaptive/reversible coping strategy mentioned links closely to our study objectives: The following percentage of households cited reduced purchase of nonfood items, including WASH goods, in order to afford food.



HH surveys showed a low prevalence of this happening in **MALAWI**, but then this behavior was frequently mentioned in FGDs, with women in particular mentioning buying less soap and sanitary pads.

The following percentage of HH survey respondents mentioned reducing their number of meals each day:

- **TIMOR-LESTE** 37 (21/57)
- **GUATEMALA** 44% (22/50)
- **SOUTH SUDAN** 54% (27/50)
- **MALAWI** 32% (18/57)

Reducing daily meals is considered as a distress or survival strategy. Participants in **TIMOR-LESTE**, **SOUTH SUDAN** and **MALAWI** said they borrowed food or took on debt to buy food—both of which are deemed a severe approach. In **SOUTH SUDAN**, multiple FGD respondents mentioned eating wild foods instead of the usual staples. Furthermore, in both **TIMOR-LESTE** and **GUATEMALA**, FGD respondents cited removing children from school due to the cost of school fees, and potentially removing children from school to work (**TIMOR-LESTE**), and, due to spiraling unemployment, so that children could “*help their parents*” earn money (**GUATEMALA**).

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**Everything has gone up so much ... even for us women, we do not buy [sanitary] pads anymore ... we use a piece of cloth when the need arises.**

Female FGD respondent, Mtagaluka, Malawi

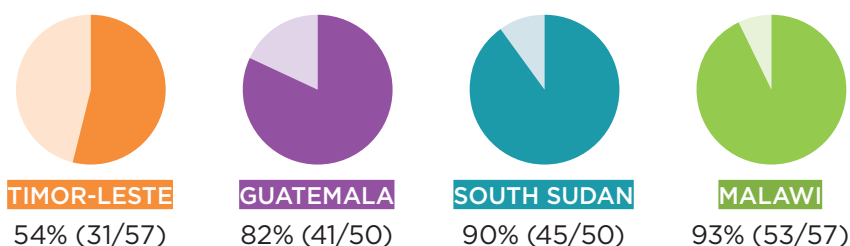
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**We substituted some products with local resources. For example, if you couldn't afford sorghum or maize flour, you fetched water lilies and dried them to grind and use as food.**

Female FGD respondent, Padiet, South Sudan

## ACCESS TO WASH ITEMS AND SERVICES

Soap and sanitary pads were generally available in the markets local to the respondents, according to both vendors and households. However, due to the increased prices of food and soap, families changed their buying habits. When asked about whether their household had stopped buying or bought less soap and sanitary pads in the previous months, in all four countries, a majority of households responded that they bought less or no soap.



The main reason mentioned was that they dedicated more of their income to food or because the prices of soap and other WASH items had increased.

In all four countries, interviewed vendors and households observed an increase in the cost of soap and sanitary pads, along with the price of food, but this rise varied by country. All 40 vendors were asked the current selling price of the cheapest single unit of the soap, water or sanitary product they currently sold, and what the price had been this time the previous year. Although this data is not representative, across the 40 vendors we can see the indicative results of the vendors' responses showing these reported price rises across each product and context, according to market vendors.

**Table 2. Median cited % price increase for key WASH items and services between this time the previous year and the current time - according to vendors\***

	Soap	Water	Sanitary pads
Guatemala	33%	21%	17%
South Sudan	51%	25%	12%
Timor-Leste	35%	7%	25%
Malawi	5%	1%	55%

\*Taken from surveys of 40 WASH vendors. Not all vendors sold all products. MHM = menstrual hygiene management.

From the perspective of the 40 vendors interviewed, they were seeing fewer customers since this time the previous year, and these customers were buying fewer WASH items per trip.

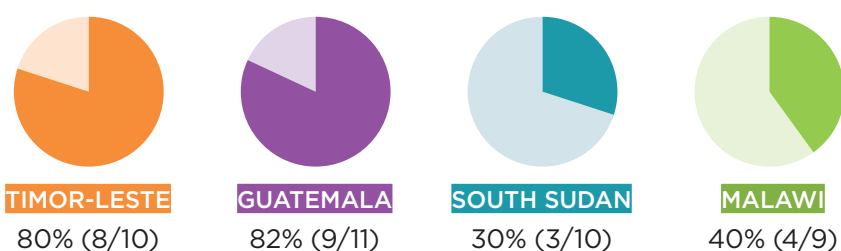
**[The price of] water sold in water kiosks has increased, and [the price of] a tablet of soap has also doubled, thus we don't frequently use soap.**

Female FGD respondent, Mbaluku, Malawi

Of the vendors interviewed, the following percentage reported a decrease in their number of daily customers over the previous year:

- **TIMOR-LESTE** 90% (9/10)
- **GUATEMALA** 82% (9/11)
- **SOUTH SUDAN** 50% (5/10)
- **MALAWI** 78% (7/9)

The following percentages represent vendors who said their customers were buying fewer WASH items:



Various reasons were given for this by vendors, such as ‘when they hear the price, they go, because they don’t have enough money to pay’ ‘people lack employment’ (**GUATEMALA**) or ‘people don’t have money’ (**TIMOR-LESTE** and **MALAWI**). **Worryingly, a growing percentage of vendors were stocking less soap or sanitary pads:**

- **TIMOR-LESTE** 70% (7/10) less soap | 60% (6/10) less laundry soap
- **SOUTH SUDAN** 40% (4/10) less soap
- **MALAWI** 50% (5/10) less sanitary pads

This market dynamic could become a vicious cycle, eventually eroding household incentives to buy critical WASH items in the long term if they are not widely perceived to be available.

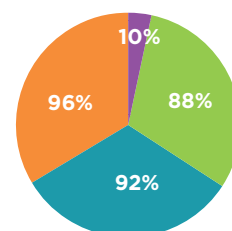
In **GUATEMALA**, 90% (45/50) of respondents mentioned WASH items they wanted to access but could not. Respondents were provided with a list of items and highlighted laundry soap, construction material (for latrine construction) and buckets. The figure was 86% (43/50) in **SOUTH SUDAN**, with laundry soap and construction material also being mentioned as inaccessible, 84% (48/57) in **MALAWI** and 51% (29/57) in **TIMOR-LESTE**.

Across all four countries, sanitary pads were still considered a “luxury item.” When asked about the affordability of MHM products, only respondents in **GUATEMALA** perceived them to be financially accessible to them, with only 10% (5/50) of households saying they were unaffordable. However, in **MALAWI** 88% (50/57), **SOUTH SUDAN** 92% (46/50) and **TIMOR-LESTE** 96% (55/57) of households overwhelmingly considered MHM products to be unaffordable.

**There are many people who do not have jobs and sometimes they do not eat because of how expensive the products are.**

WASH vendor, Guatemala

**% respondents that deemed MHM products unaffordable**



The study revealed that the price of sanitary pads had risen by between 12% (**SOUTH SUDAN**) and 55% (**MALAWI**), according to the prices of WASH items reported by vendors in the four countries (Table 2).

In **MALAWI** and **SOUTH SUDAN**, female respondents of FGDs said women didn't buy sanitary pads but preferred to rely on traditional methods to manage menstruation, such as using a piece of cloth. In **TIMOR-LESTE**, women tended to rely on market purchases, while in **GUATEMALA**, HH interviews and FGDs showed that, in the previous year, women had changed their purchasing practices, buying lower quality sanitary pads, due to price rises.

When asked about their water consumption habits, participants said that, when their water source became unaffordable or inaccessible, using another source was easier than using other coping strategies related to WASH or non-WASH items. Several respondents in **TIMOR-LESTE** said that fetching water from the river for free was easier than reducing expenditure on other WASH items: *"We need to buy detergent and soap. Sometimes we carry water from the river and boil it, then we drink it."* In **GUATEMALA** and **TIMOR-LESTE**, focus group discussions and interviews revealed that people had been relying on various water sources, primarily unprotected surface water or unimproved springs, as the public piped water distribution service was inconsistent. Due to the current global food crisis and the resulting food price hikes, participants said they were limiting spending on water by travelling greater distances to fetch (free) water. This situation tends to expose women and girls to the risk of gender-based violence,<sup>11</sup> and is also gender discriminative in many contexts as it reduces the time women can dedicate to income-generating opportunities.<sup>12</sup>

Where piped water was available (**MALAWI**, **GUATEMALA** and **TIMOR-LESTE**), and people had to pay for it, they said they often reduced the quantities of piped water consumed and relied partially on alternative sources (for personal hygiene, for example), such as rivers or unprotected boreholes.

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**We often receive sensitization sessions on sanitation, hygiene and water treatment, but we don't follow the recommendations.**

Female FGD respondent, Los Naranjales, Guatemala

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11. Tallman, Paula S. et al. 2022. [Water insecurity and gender-based violence: A global review of the evidence](#). *WIREs Water* Vol. 10, No. 1, January/February 2023.

12. Borja-Vega, C and Jonathan Grabinsky. May 10, 2020. [Water fetching responsibilities reveal unequal gender dynamics: Elevates need for expansion of on-site WASH facilities](#). World Bank Blogs.





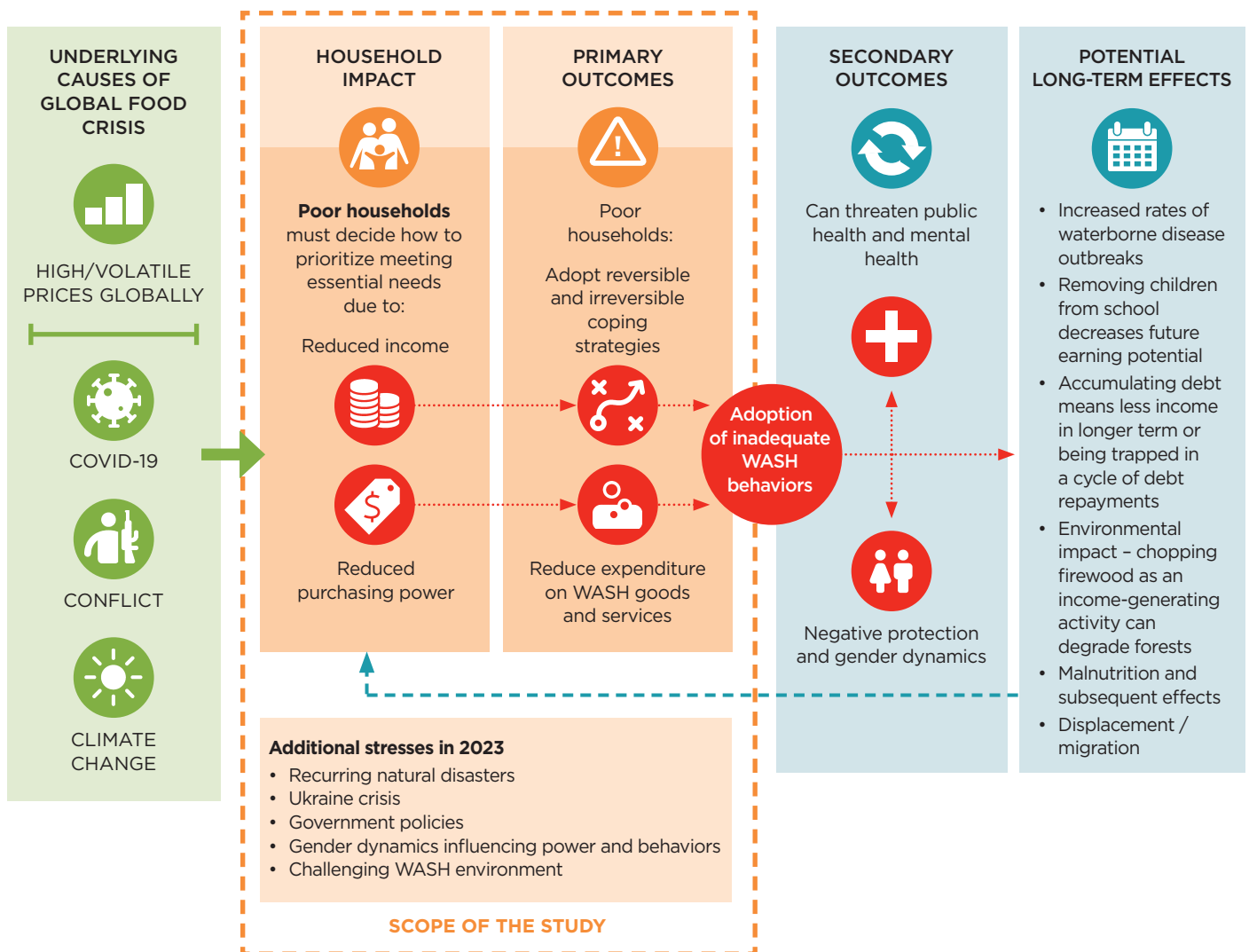
In Timor-Leste, households said they relied partially on alternative water sources (besides piped water), such as rivers or unprotected boreholes.

Photo by Jennifer Hardy/CRS

# 5. Conclusions

Figure 6 below simplifies the key findings, and the potential long-term effects of such behavior supported by conventional wisdom on the causes of the global food crisis. The study findings cover the impact on poor households as well as the eventual primary outcomes. Notably, the potential secondary outcomes—as well as the long-term effects—presented here are supposed rather than evidenced, based on a common understanding of causality between a deterioration of WASH practices and environmental, educational, livelihoods and health impacts. These effects are supported in a wide range of literature and experience.<sup>13</sup> While the study only focused on four country contexts, the conclusions and subsequent recommendations are assumed to be generally relevant to other contexts.

Figure 6. Summary of key findings



13. UNICEF, 2021. [UNICEF Conceptual Framework on on Maternal and Child Nutrition](#).

The following key findings were prevalent to some degree in all four countries:

**1. The effects of volatile food prices continue to impact household purchasing power.**

All data shows that prices were volatile between 2021 and 2023 and, at the time of writing, remained elevated across the countries studied. Even short-term price volatility impacts household buying power, by making family budgeting and planning more difficult in the context of elevated, uncertain market dynamics. As incomes fail to keep up with inflation, household money is not able to go as far, resulting in families having to spend a greater percentage of their diminishing income on food. This results in having to make choices about how to meet essential nonfood needs with reduced resources.



**2. People are choosing to either stop buying or reduce their spending on WASH items in order to prioritize food.**

In all contexts, 'prioritizing food' was one of the top three reasons cited for why households had stopped buying or were buying less soap, water and sanitary pads. Soap was the item that households in all contexts most often cited as buying less of or not at all. The prices of soap and sanitary pads had increased, which creates an additional barrier to households buying these products. These rising prices also discouraged households from adopting adequate healthy behaviors, such as hand-washing, safe drinking water consumption, and menstrual hygiene management. This situation persists even in the presence of outbreaks of critical waterborne diseases, such as cholera, which communities are aware of.

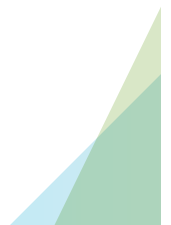


**3. Households are adopting coping strategies, some of which are risky and irreversible.**

To meet their food needs in the face of rising, volatile prices, many families were engaging in some form of coping strategy. These varied by context, but all countries saw a mix of both adaptive/reversible and crisis/irreversible strategies, many of which will have eventual long-term impacts on livelihoods and water-related infectious diseases, and some put women and girls at particular risk. Concerningly, strategies such as accumulating debt to buy food or reducing adult food consumption were cited across multiple countries, which can erode long-term stability or resilience beyond the crisis—especially with regard to household income and adult health.

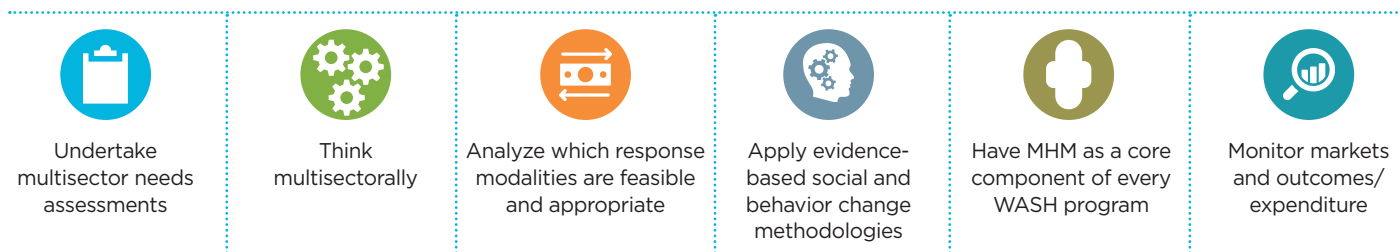


**4. Households are increasingly adopting inadequate WASH behaviors.** To navigate their financial limitations, households are adjusting their spending patterns on WASH-related expenses, often leading to the adoption of inadequate WASH practices. Across all four countries, families displayed an awareness of proper hygiene practices, such as the correct use of latrines, hand-washing, and safe drinking water consumption. However, they cited challenges around effectively implementing these. There was a lack of clear understanding among household members on the links between water-related diseases, hygiene practices, and the associated risks in terms of health, economic consequences, cognitive impact, and the social implications of diarrheal diseases. As a result of these challenges, households resorted to fetching water from unprotected sources that were freely accessible, despite the increased distances they had to travel; a practice that may expose women and girls to higher risks of GBV.



## 6. Recommendations

These recommendations are intended for CRS field teams and partners implementing emergency programs in the current context of the global food crisis:



**1. Multisector needs assessment data is important for WASH programming.** Emergency needs assessments should endeavor to be truly multisectoral, covering all basic needs that households may have rather than focusing only on a single sector (e.g., only food security or only WASH). Assessments should also cover market access and functionality, to understand whether critical WASH goods are available and accessible to households. WASH teams should take care during the response analysis phase to understand people's preferences and ability to cover food needs as well as their WASH needs, especially when designing responses where resource transfers (either cash, vouchers or in-kind) are considered. A failure to do so may result in cash and voucher assistance (CVA) for WASH being directed toward food needs, or in-kind WASH items being resold by households unable to afford food.

**2. Think multisectorally when designing emergency responses to the food crisis.** Emergency responses to the global food crisis should systematically consider multisectoral responses, layering WASH support with food assistance, for example, to produce better outcomes for households and communities. Siloed thinking and responses can undermine intended food security, WASH or other outcomes. Field teams should use multisectoral needs assessment data to leverage funding that fills both household food consumption gaps and inadequate household access to safe water, WASH NFIs and sanitation, and consistent information and means to guarantee adequate hygiene practices. Capturing evidence, stories and learning on multisectoral responses could be used to influence donors on this topic.


**3. Analyze which modalities are feasible and appropriate, ensuring adjustments for inflation.** In an increasingly resource-constrained environment, despite rising prices, cash can still be the most appropriate response option to meet basic needs. Respondents in all contexts cited cash as their preferred modality to support vulnerable households, and if, through a thorough response analysis process,<sup>14</sup> cash is deemed feasible,<sup>15</sup> it should be considered a priority response option to meet basic needs. However, given evident price volatility, it is recommended that CRS teams ensure that the transfer values they set for any type of CVA programming are appropriate, based on recent market price data and adjusted for inflation in line with national CWG recommendations.

14. CRS. March 2021. [Response Analysis](#). Keep it Simple Series No. 4.

15. CRS. 2020. [Cash and voucher assistance feasibility checklist](#). [Guidance document](#).

In Malawi, 51% of respondents mentioned WASH items that they wanted to access but could not. The price of soap and sanitary pads discourages households from hand-washing and drinking potable water, even amid outbreaks of waterborne diseases, such as cholera. Photo by Michael Stulman/CRS





Where basic needs identified include water, soap, sanitary pads and other WASH needs, the context must first be analyzed (e.g., markets and risks including public health, organizational capacity and protection) to determine the most appropriate modality and/or combination of modalities. This could be either market based (e.g., in kind or vouchers for WASH NFIs and, under the right circumstances, cash) or non-market based (e.g., infrastructure improvement, social behavior change interventions) or a combination of both. For more information on designing and implementing market-based WASH programming, as well contextual examples, see [Market-Based Programming in WASH: Technical Guidance for Humanitarian Practitioners](#) (Global WASH Cluster 2021).

**4. Always apply evidence-based social and behavior change methodologies.** CRS country programs must continue to increase their current efforts to promote the use of evidence-based SBC methodologies for WASH. Merely sharing messages and raising awareness without a consistent methodological application is inadequate for driving behavioral change around WASH practices. It is therefore crucial to adopt comprehensive WASH methods that encompass water, sanitation and hygiene for successful SBC interventions promoting improved hygiene practices. CRS should persist in analyzing and developing evidence-based methodologies (such as [Wash'Em](#), or other effective methodologies) to enhance hygiene promotion efforts.

**5. Menstrual hygiene management must be included as a core component of every WASH program:** MHM interventions should not be limited to the distribution of sanitary pads, and should ensure the integration of women's and girls' preferences. Building on the previous recommendation for SBC in WASH interventions, it is incumbent upon us to prioritize creating a conducive environment for women and girls to voice their preferences. This valuable information should guide our response design during assessments and evaluations, and throughout the implementation of dedicated MHM promotion sessions. By actively involving women and girls, and considering their preferences, we can ensure more effective and tailored hygiene-promotion efforts. Integration of MHM items into WASH market assessments is essential to capture trends and impacts on households and adapt programming accordingly.

**6. Monitoring of both markets and outcomes/expenditure is crucial.** As the global food crisis continues, it is essential to have an understanding of market prices, not only of food items, but of critical WASH items (e.g. water, soap, sanitary pads and other key hygiene items) in the context of multisectoral emergency programming. CRS teams should utilize existing secondary market monitoring data and, in the absence of this, seek to collect their own data, in order to understand the cost of a standard basket of goods, and trends and potential impacts on poor households in particular, and modify programming as appropriate. From a WASH perspective, this can support teams to mitigate project participants' "deprioritization" of critical goods linked to price rises and reduce the eventual negative impact on WASH outcomes, and a potential greater number of water-related infectious disease outbreaks.

Similarly, for CVA programs in particular, monitoring the actual expenditure patterns of participants can help to understand whether transfer values are meeting intended needs, as can systematically monitoring multisectoral outcomes linked to CVA programming. If multipurpose cash assistance is being distributed as part of an emergency response, CRS teams should use the MPCA Outcome Indicators.<sup>16</sup>

WASH programs can also benefit from an understanding of the outcomes of MPCA programming to learn to what extent MPCA can contribute to WASH outcomes. MPCA 'can contribute to overcoming financial barriers to accessing WASH goods and services.'<sup>17</sup> However, in most cases, MPCA must be implemented together with complementary programs that address WASH-related supply-side barriers (e.g., the availability of hygiene kits in markets), non-financial demand-side barriers (e.g., water supply), systemic issues (e.g., governance), or behavioral changes (e.g., hygiene promotion) to contribute to positive WASH outcomes. WASH experts must be involved in all phases of multipurpose cash project development and implementation (needs assessment, risk analysis, response analysis and design) to ensure that interventions complement each other.<sup>18</sup>

In addition, the teams leading this study recommend that the patterns and findings evidenced in this report can be further explored through additional in-depth research into the evolving situation, looking at:

- The impact of the global food crisis on specific WASH outcomes for women and girls, analyzing additional aspects, risks, determinants and power dynamics both within and between households, while meeting their needs in this context.
- Particular countries and contexts experiencing water-related infectious disease outbreaks, IPC phase 4-5, or nutrition crises. In-depth research, conducted over a representative period (4-5 years), would enable a better understanding of the pattern and impact, and help demonstrate the hypothesized long-term effects of the demonstrated dynamic, and the eventual repeated and sustained impacts on household income and WASH outcomes. It could include aspects of social and market driven parameters (e.g., what drives purchasing patterns) and could help define the most adequate approaches at critical times (e.g., during disease outbreaks). A comparison of key public health and protection indicators could be integrated with purchasing power indicators over time. Finally, such a focused piece of research might help identify links between the duration of specific disease outbreaks, such as cholera, and household purchasing power.
- Comparing the results of CRS multisectoral responses in the context of the global food crisis and approaches in comparable contexts for their impact on key indicators of food security and WASH. Multisectoral responses are interpreted and implemented with different levels of coordination and collaboration between sectors by CRS country programs and it is essential to identify the associated improved outcomes to better adapt our approaches in crises affecting the different needs of people.

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16. The Grand Bargain Cash Workstream. 2022. [Multipurpose outcome indicators and guidance](#). CALP.

17. Global WASH Cluster. 2021. [Market-based programming in WASH: Technical guidance for humanitarian practitioners](#). Page 73.

18. Global WASH Cluster. 2021. [Market-based programming in WASH: Technical guidance for humanitarian practitioners](#). Page 33.





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In Guatemala, 90% of respondents mentioned WASH items that they wanted to access but could not.  
Photo by Dinorah Lorenzana for CRS



**Table 1. List of key themes and guiding questions**

Theme / Guiding question	Data source
<b>Household budget management</b>	
How do households make decisions on expenditure amid rising costs? What do they prioritize?	Households
<b>Affordability of WASH Items</b>	
Are households experiencing rising costs for soap, water and sanitary pads? How do they perceive these changes?	Households Vendors
<b>Household WASH expenses</b>	
How has household expenditure on soap, water and sanitary pads changed over time amid rising costs?	Households
<b>Related behaviors and coping strategies</b>	
How are families coping with the situation in terms of purchasing patterns or other behavior and practices?	Households
What risks may be associated with these coping strategies?	Households Literature review

**Table 2. Household survey sampling, by country and gender**

	Planned	Conducted		
	Total	Women	Men	Total
Guatemala	50	50	0	50
Malawi	50	46	11	57
South Sudan	50	38	12	50
Timor-Leste	50	35	22	57
<b>Total</b>	<b>200</b>	<b>169</b>	<b>45</b>	<b>214</b>

**Table 3. Focus group sampling, by country and gender**

	Planned			Conducted			
	Women	Men	Total	Women	Men	Mixed	Total
Guatemala	3	3	6	4	0	1	5
Malawi	3	3	6	3	3	0	6
South Sudan	3	3	6	4	4	0	8
Timor-Leste	3	3	6	3	3	0	6
<b>Total</b>	<b>12</b>	<b>12</b>	<b>24</b>	<b>14</b>	<b>10</b>	<b>1</b>	<b>25</b>

**Table 4. Key informant interview sampling of vendors, by country**

	Planned		Conducted	
	Total soap/sanitary pad vendors	Total water vendors	Total soap/sanitary pad vendors	Total water vendors
Guatemala	6	4	10	1
Malawi	6	4	4	5
South Sudan	6	4	6	4
Timor-Leste	6	4	10*	0*
<b>Total</b>	<b>24</b>	<b>16</b>	<b>30</b>	<b>10</b>

\*In Timor-Leste, all vendors sold all three items.





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