ESTABLISHING REMOTE MONITORING AND ASSESSMENT CAPACITIES FOR COVID-19 RESPONSE

A practical guide

March 2020

This document builds on WFP guidelines prepared in the first half of March 2020, but it is adjusted to the role of the Food Security Cluster

I. Background

Since the outbreak of the Coronavirus Disease (COVID-19), many countries have put in place isolation and/or quarantine measures to reduce transmission risks and curb the spread of the virus. Without access to communities, traditional modalities to collect information and monitor the food security and basic needs of affected populations cannot be relied upon; in addition, face-to-face surveys could expose enumerators to further risk of contagion. Nonetheless, the same information is needed, including the ability to answer key questions on the impacts of the outbreak on food security and livelihoods, health, access to services, markets and supply chains, as well as people's challenges and needs, among others.

II. Remote monitoring tools

As such, continuity on vulnerability and market monitoring systems is critical in times of a public health emergency. In COVID-19 affected countries or countries at risk of an outbreak, organisations should consider the use of remote monitoring tools as they provide a more flexible and efficient way to collect information: they are cheaper, faster, and can be conducted even in conflict- or epidemic-affected areas without putting enumerators at risk. The remote monitoring toolkit includes:

- **mVAM** near real-time monitoring systems: WFP's mobile-VAM (mVAM) initiative involves conducting mobile surveys through live telephone interviews[1]. High frequency data is collected from households and key informants (e.g. traders). mVAM was piloted in 2013 and scaled up in 2014 to Guinea, Liberia, and Sierra Leone to support the Ebola emergency response. Take up of mVAM tools has been rapid, and the approach is now being used in over 40 WFP countries, including Level 3 emergencies.
- **Web surveys**: Leveraging the increasing number of internet users across the globe (59% in 2020), it is possible to use web surveys to collect near-real time quantitative and qualitative information from women and men across all age groups. The method has proven to be effective in collecting high-frequency data from different population groups, including displaced populations. The self-administered survey provides respondents with secrecy, freedom and confidence to respond, without providing incentives. Information covered so far included questions related to how people meet their food and other essential needs, livelihoods, impacts of shocks, migration drivers and remittances, challenges and priorities.

III. Preparedness phase

Given the rapidly escalating situation of the COVID-19 outbreak, organisations must ensure that they are adequately prepared to set up and maintain remote vulnerability and market monitoring capacities to inform operational response in the event of an outbreak. Preparedness measures include:

1. Also known as Computer Assisted Telephone Interviewing (CATI). Other data collection methods include text messages (SMS), Interactive Voice Response (IVR) and two-way communication systems

a) mVAM systems

mVAM surveys are conducted through live telephone interviews – also known as Computer Assisted Telephone Interviewing (CATI) – via call centers. Your organisation should hire a regional and national call centers to manage calls made by trained operators in local call-centers. You should also check your CO's budget availability for conducting mVAM surveys. Alternatively, you can contact the WFP-VAM in your country who has great experience in this domain.

b) Web surveys

Web surveys are administered through survey forms that reach anonymous and random internet users on the web. Your organisation can work with a company in order to use their proprietary Random Domain Intercept Technology (RDIT) to capture responses. As users surf the web and click on a broken link or make a mistake in the URL, they receive a survey form instead of a broken link notification. Surveys can be geo-targeted in areas of particular interest and capture different target groups such as residents, migrants, internally displaced persons, among others. Surveys can generally be launched within a few days at relatively low costs for COs and initial results are available within days.

c) Market monitoring

Organisation should consider collecting phone numbers from traders in advance. In case of an outbreak where the movement of people could be restricted due to quarantine measures, these traders can then be contacted via mobile surveys. To reduce the burden of this preparedness exercise, consider starting with CVA-contracted traders where possible.

COs should assess the potential risks and impact that the restrictions of movement of goods and people may have on international and national supply chains. A checklist of questions to be addressed to importers, distributors, wholesalers, and retail-chain operators was jointly developed by Supply Chain and the Research, Assessment and Monitoring divisions and is available in **Annex 1**.

In countries where a price monitoring system exists, the FSC could coordinate the data collection system and make sure organisations make an effort to implement weekly price data collection where needed.

In countries where a price monitoring system exists, COs should make an effort to keep the global WFP Dataviz up-to-date, and consider implementing weekly price data collection where needed. In other countries, COs should consider establishing a price monitoring system following this guidance.

In countries where statistical offices and government partners are willing to share market information, we recommend to establish partnerships with these actors. Prices can be reported in Dataviz through the reporting system. HQ remains available to draft specific agreements for data sharing.

IV. Implementation phase

If the situation is deteriorating in your country, you should strongly consider establishing remote monitoring capacities. Factors for consideration include confirmed or rapidly increasing number of COVID-19 cases; presence of underlying vulnerabilities, e.g. high food insecurity, weak health systems; coping capacity; exposure to a large number of flights to and from outbreak epicenters; close proximity to other countries with a high number of confirmed cases; high mobility, e.g. presence of migrants, IDPs and refugees who would be highly vulnerable in case of an outbreak; and your operations that would be heavily impacted in case of an outbreak.

A particular focus of the survey for COVID-19 should be placed on the monitoring of health and illness, access to health services, access to food and markets, and impacts on market prices and supply chains. General support to the monitoring systems across emergency clusters and/or sectors should also be considered. The survey should aim to answer the following key questions:

- *How has the situation changed as a result of the outbreak and the enforcement of the quarantine?*
- *Are people able to access basic services, including health services? Are people able to meet their food and other essential needs?*

- *Have markets and supply chains been disrupted, if so, how?*
- *What are the plans of the government and other partners for addressing the needs of the population under quarantine?*
- *What types of WFP assistance would be needed and is possible given the constraints? Is it possible to monitor this assistance effectively?*

To facilitate mobile/mVAM surveys, web surveys and market monitoring, you should adopt the use of a **meta data template (Annex 2)** where you are could provide specifics such as contact information, data collection method, cleaning procedures, and means to release the data. The meta-data template is crucial to disseminate a complete and clear set of information. Mobile surveys should include: (1) a household survey with questions on health and illness, access to health services, access to food and market, food consumption; and (2) a trader-based survey to understand and track COVID-19 related impacts on market prices, market access and supply chains. A **household questionnaire template (Annex 3)** for COVID-19 has been developed to help organisations select questions for their survey. A separate **trader-based questionnaire template (Annex 4)** based on the mobile Market Functionality Index (mobile MFI) is also available.

Web surveys should include quantitative questions on demographics of respondents, markets, livelihoods, food security, health, access to services, needs, population movements, awareness and preventives measures related to COVID-19. Additional qualitative questions can be added to further capture the voices of the respondents with regards to their biggest concerns. A **master web questionnaire (Annex 5)** has been developed to help organisation select questions for their survey. Ideally, the same questionnaire should be used in subsequent rounds of surveys to establish trends over time.

a) mVAM systems

mVAM near real-time monitoring systems are recommended for the COVID-19 response as they provide continuous updates on a daily basis. The main advantage of this approach is that data is available more frequently – data is collected on a rolling basis and processed daily through automated statistical engines. Daily updates are then produced showing a snapshot of the current situation5 over the past 15 or 30 calendar days. Here are the instructions for setting up mVAM/mobile near real-time monitoring systems:

Step 1: Agree on the methodology for data collection

The methodology for data collection differs by survey type. There are two recommended surveys for mVAM/mobile in the context of COVID-19 : (1) a household survey that includes questions on health, access to health services, access to food and market, food consumption; and (2) a trader-based survey to monitor impacts on market prices, market access and supply chains.

	Survey 1: Household survey	**Survey 2: Trader-based survey**
Questionnaire	Conduct a household survey to monitor households' health/illness, access to services, access to food and market, and food consumption. You can adapt the household questionnaire based on your country needs: • **Scenario 1:** If your organisation does not have an existing mVAM/mobile near real-time monitoring system, conduct a household survey that includes modules on 1. food consumption score, 2. access to food and market,3. Access to health services 4. health/illness. **Scenario 2:** If your organisation has an existing mVAM/mobile near real-time monitoring systems add	Conduct a trader-based survey (separate to the household survey) to monitor impacts on market prices, market access and supply chains. • The trader-based questionnaire should be based on the **mobile Market Functionality Index (MFI)** – see template below. This should be considered as the minimum set of question, which can be augmented based on additional information needs.

	modules on health and illness, access to health services, access to food and market, food consumption to your existing questionnaire (note that there could be a slight increase in cost if the sample size needs to be increased). For the most affected administrative areas, consider conducting a follow-up stand-alone household survey with a more comprehensive questionnaire. • If translation is required, translate the questionnaire into local languages	• If translation is required, the organisation should translate the questionnaire into local languages before providing it to the call center.
Respondent selection	Determine the respondent selection approach based on the scenario that applies to your country. • **Scenario 1:** If your country office has a nationally representative database of phone numbers (e.g. collected through the latest face-to-face assessment), provide the phone numbers to the call center. • **Scenario 2:** If your country office does not have a nationally representative database of phone numbers, check with the call center if they have access to a sizeable and representative database of phone numbers. • **Scenario 3:** If none of the two scenarios above apply, random digit dialing (RDD) will be used to reach and recruit households. Each month new households will be contacted.	Determine the markets in which you would like to conduct the survey. • For countries with CBT programmes, the **retailers for CBT programmes** should be included in the survey. • Ensure that your country office has access to or can collect **sufficient phone numbers from traders** to conduct the survey (it is recommended to collect at least 3 times the sample size per marketplace).
Sampling	Determine the sampling approach for your survey. Sample sizes can be adapted to specific country needs, based on your country context and available budget. • **Option 1:** 180 households per admin area per month[2] to provide estimates in a 15 to 30-day window, depending on the severity of the situation. • **Option 2:** National representative survey of 800 households to provide estimates in a 30-day window (or 400 households in a 15-day window), depending on the severity of the situation. If the situation intensifies, consider doubling the sample size within the same survey period.	Purposive sampling is normally the approach used in market assessments. While no prescriptive indication can be done in terms of sample size, it is recommended to call between 3 and 12 traders per marketplace.

Step 2: Prepare a scope of work

A scope of work is a guiding document that defines the protocol and methodologies for the call center to carry out mobile surveys. It should contain sections such as country context/background, objective, methodology for respondent selection, indicators to be collected, sample size/sample frame, languages, respondents and quotas, geographic scope, timeline for data collection, and call center and survey management. The recommend period for COVID-19 mVAM surveys is **at least 3 months**.

2 In line with Integrated Food Security Phase Classification (IPC) guidelines on the minimum sample size for mobile surveys

Step 3: Obtain a quote and create a Purchase Order (PO) for the service

Step 4: Train call center operators and conduct pre-test

Once the PO is created, contact the call center to organize a training for call center operations. The training should be provided by your organisation and should take place over a two-day period. It should cover key topics such as project background & goals (including operator job aid in a Q&A format for potential questions from the respondent), indicators to be collected, questionnaire review and mock interviews. A representative from the call center will cover data entry and management software-related topics such as call center protocols – including ethics and best protocols, data entry and data management software and quality control.

Following the training, request the call center to conduct pre-test calls and share the pre-test data with your organisation. Pre-test calls are meant to test the feasibility of data collection, assess data quality and determine if any adjustments need to be made to the questionnaire.

Step 5: Start data collection and monitor progress

If you are satisfied with the pre-test results, notify the call center to commence data collection. Data quality checks should be conducted regularly to ensure that the call center follows the approaches and methodologies established in the scope of work.

Data is processed through automated statistical engines and is accessible daily. Organisations with strong Tableau/PowerBi capacities can produce dashboards to visualize the data.

b) Web surveys

Web-surveys offer a rapid, effective and cost-efficient solution to collecting quantitative and qualitative information from affected populations. Data collected is accessible in near-real time for analysis through RIWI's proprietary dashboard. This methodology can be used to collect baseline information and monitor trends overtime. The key deliverables will be short baseline/monitoring reports, and where possible include a combination of mobile phone and web survey data for a more complete picture of the situation. These reports can serve as advocacy tools for fundraising and other purposes. An example of such an advocacy tool can be accessed here.

Step 1: Contact the HQ team to express interest in conducting web surveys

The HQ team can help assess your information needs and advise on the feasibility of web surveys in your country depending on internet usage and connectivity. Generally, it is advisable to conduct web-surveys in countries where internet coverage reaches at least 20 percent of the population.

Step 2: Questionnaire development and sampling design

Questionnaire and target population(s)

A master web questionnaire (Annex 5) has been developed to help your organisation create a survey tailored to your information needs and context. Typically, the survey allows for 25 close-ended questions and 1 or 2 open- ended questions. Should your organisation require information from different target groups (e.g. migrants and residents), questionnaires can include specific skip logics. Furthermore, it is recommended that your organisation translate its questionnaire in the local language(s) of the country. RIWI can also provide this survey at an additional cost.

Sampling

The sample size should be adapted to specific country needs, context and available budget. Two options are recommended:

- **Option 1 – National representation:** For surveys representative at national level, the minimum required sample size is of 1,000 respondents which are spread proportionally across all admin zones to ensure

representation of all geographic areas and demographic groups

- **Option 2 – Administrative-level representation:** For surveys representative at administrative one level, the minimum requires sample size is of 120 by administrative zone. In reality, the actual sample sizes will be much higher as the system continues to run until all regions have at least 120 surveys completed. During the analysis a sample weight will be established to mitigate potential bias created by sex and age distributions and generate representative results at national level.

Step 3: Prepare a budget and scope of work (SoW)

The questionnaire length, target group(s), sample (and translation if needed) will determine the budget and SoW. Your organisation should write up a SoW including the project scope, geo- targeting requirements, survey specifications, field dates, deliverables and project scope according to pricing.

Step 4: Obtain a quote and create a Purchase Order (PO) for the service

Once the SoW, budget and questionnaire have been agreed, your organisation will proceed to create a PO for the service. You must send a copy of the SoW to your administrative assistant, including in the email the purpose of the service, the budget code, the start date of payment as well as the procurement process number

Step 5: Survey deployment, data collection and monitoring

It is crucial to review and test the link carefully, and report back small edits on wording and skip logic. At this stage, the content of questionnaire should not change.

Once the link has been successfully tested, surveys will be launched in relevant geographies and continue to collect data until all sample requirements are met.

Data will delivered your organisation in its proprietary dashboard through which data files in SPSS and Excel can be downloaded. It will be critical to monitor data collection through the dashboard in the first 48 hours of the launch. Should there be significant respondent drop-off rates linked to certain questions, these can be removed or slightly modified to help increase retention rates. Continue to monitor data collection until sample requirements are fully met.

Step 6: Data analysis and reporting

Once data collection is complete, you will be notified that surveys have been stopped. Data analysis is usually done based on an analysis plan. Across all countries, weighting systems are generally introduced to mitigate potential technology biases. Upon request, the HQ team can offer light support for weighting systems and analysis. The team will remain available to review final reports and assist in dissemination (if relevant).

To help track changes and establish trends over time, it is recommended to conduct 2–3 rounds of web- surveys within a 3–5-month period.

c) Market monitoring

Collection of market price data provides key information for programme implementation and household vulnerability monitoring. The outbreak of pandemics can affect the supply chain, leading to volatility in availability and price of commodities. A rigorous and continued effort is required to understand market development. All organisations should collect regularly and timely all market price data available.

Annex 1: **COVID-19 SC CBT Upstream Assessment**

In light of the current pandemic spread of COVID-19 WFP is taking preparedness measures for its countries currently under CBT programmes. To gauge the risk and current situational impact on international and national supply chains the following standard questionnaire shall enable a global analysis.

Please consider this the minimum set of questions to ask and augment based on additional information needs.

These questions should be post to the main stakeholders along national supply chains such as:

1. Importers
2. Distributors
3. Wholesalers
4. Retail-Chain Operators

1. **Which products do you import?**

Kindly list the top-3, consider at least the following product categories

1. Grains
2. Legumes
3. Oils and Fats
4. Essential Non-food items

[Please indicate the % of your business volume and List others]

2. **In which countries (importers) / cities (wholesalers) are your key commercial suppliers located?**

[Please provide the list here per key commodity group and in %]

Kindly list the top-3 by business volume

3. **Is there a single (or few) supplier(s) from whom most of your business relies upon?**

[Please provide the list here per key commodity group in %]

Page Break

4. **Are you aware of any restriction of movement of goods and services in these countries that is concerning your business?**

[Please provide your answer here per key commodity group]

5. **What are the main supply routes/corridors you use?**

[Please provide your answer here per key commodity group]

6. **Are you considering business continuity options should one or more of your commercial partners fail to supply?**

Please elaborate what they are and if they involve changing product origins

[Please provide your answer here per key commodity group]

Annex 2: Metadata templates

All different survey types require this information to be filled out for later reference, use and dissemination of both processed data and results. The example is based on Market monitoring of commodity prices and availability, but it can be adapted to Web surveys and mVAM surveys.
This document can be attached as an annex to any data sharing agreement (inbound or outbound data) and as part of the TOR with contracted companies.

1. Contact	
1.1 Contact organization	
1.2 Contact organization unit	
1.3 Contact mail address	
1.4 Contact e-mail address	

2. Metadata update	
2.1 Metadata last update	10/04/2019

3. Statistical presentation	
3.1 Data description	The Iran Market Monitoring System intends to collect and analyse data that is relevant to the economic activities of consumers. It compares commodity prices at the final stage of the supply chain: Retail. It also collects information on availability of such commodities.
3.2 Classification system	Retail sector: WFP classification of commodities.
3.3 Coverage – sector	Retail sector: a limited set of chain supermarkets in the markets of Teheran is identified to represent prices of commodities in the city. Commodities covered are the most sold brand/quality in each shop. Chain supermarkets selected: Refah, Ofogh Kourosh, ETKA, Sepah
3.4 Statistical concepts and definitions	
Collected data is as follows Retail sector: • Daily contextual sell offers in LCU to a costumer, generally for purpose of consumption ○ Contextual availability of goods to sell. In general, the concepts, definitions and conventions adopted are as far as possible consistent with those used in the global framework for national accounts (the United Nations System of National Accounts (SNA 2008)).	
3.5 Statistical units	List of commodities: • Egg • Sunflower Oil • Rice • Lentils • Sugar Commodities covered are those of the most sold brand/quality in each shop.
3.6 Statistical population	A limited number of shops and traders were designed.
3.7 Reference area	The statistical territory of Teheran.
3.8 Coverage time	From April 2019 onwards.

4. Unit of measure

All prices are expressed in Iranian Rials. Commodities are measured with a relevant unit, as reported in the system.
Specifically, prices are converted from their Storage Keeping Unit packaging weight respectively into:

Egg	KG
Sunflower Oil	L
Rice	KG
Lentils	KG
Sugar	KG

5. Reference period

Week, starting on Sunday and ending on Saturday.

6. Institutional mandate

6.1. Legal acts and other agreements

The Third Party Service Provider (TPSP) is contracted to perform data collection activities.

6.2. Data sharing

As per SDG 17, strategic objective 4 and 5, the support to SDG implementation and the sharing of knowledge are key focus of WFP to ensure SDG 2 is enabled by monitoring the economic access to food of all people at all time.

7. Confidentiality

7.1. Policies

Under no circumstance, any personal identifiable information is shared or stored beyond the raw data repository, which depends on the Kobo toolbox.
The data repository, financed and managed by OCHA, resides in Ireland.
Privacy policies of this data repository are available in the Kobotoolbox website.
https://www.kobotoolbox.org/privacy/
Data reported trough the reporting application and stored in WFP VAM central database follows the privacy and protection policy standards of WFP, available in WFP document store.
https://docs.wfp.org/api/documents/e8d24e70cc11448383495caca154cb97/download/

7.2. Data treatment

According to policy rules in 7.1.

8. Release policy

8.1. Calendar

Depending on the availability of new data, generally will be released on monthly basis.

8.2. User access

In line with 6.2. no user access restriction is implemented. Data is fully available via API or web platforms, disseminated in an objective, professional and transparent manner.

9. Frequency of dissemination

See 8.1.
10. Accessibility and clarity
10.1. News release
Not available.
10.2. Publications
Monthly country and regional bulletins will use the information collected. Bulletins will be disseminated through mailing lists, OCHA *Reliefweb* and HDX, WFP VAM *Dataviz* and document store.
10.3. Online database
Database access is transparent, allowing full data download in *VAM Dataviz* or API access, as documented in the same web-page.
10.4. Other dissemination formats
News will be released in official communication twitter accounts of VAM and WFP, based on relevancy of news.
10.5. Documentation and methodology
Meta-data and documentation on methodologies applied for data collection and analysis will be published in the *VAM Dataviz.*
10.6. Quality management - documentation
Methodology and process used to ensure quality of the data will be documented based on the specifics of the agreement implemented with the TPSP. Full documentation on the quality checks performed in the reporting process will be available in *VAM Dataviz – Economic Explorer.*

11. Relevance and completeness
11.1. User relevance
The development of the Monitoring System follows the need of updated information on key commodities contained in a food basket provided by WFP under different interventions.
11.2. Completeness
Selected markets and commodities are covered, based on the experience of WFP officers present in the territory. Confirmations will be given by analysis of the Household Expenditure Survey data.

12. Coherence and comparability
12.1. Coherence – cross domain
The system aims at monitoring price and availability of key food commodities, covering the interest in physical and economic access to these. Coherence in the data processing is ensured by the adoption of a single, centralized system where statistical units are uniquely defined.
12.2. Comparability
Geographical comparability is achieved through unique definition of the statistical unit and method of data collection. However, market position of physically comparable products might differ by shop and market. Markets monitored in different districts might present characteristics that are not summarized by price and availability information. Comparability over time of price and import data can be affected by availability of commodities or restraints in the collection of data.

13. Cost and burden
See VI. Proposed budget for implementing the system

14. Data revision
14.1. Policy
Data revisions will follow the practice indicated in 14.2. The revision will be minimized by the adoption of tools that allow to flag anomalies contextual to the collection of the information.
14.2. Practice
Data revision will involve recall of enumerators, flagging of anomalous information and revision in the database. Automated reports and web platforms will be updated following the data revision. Static reports will indicate date of extraction of the data.

15. Statistical processing
15.1. Source data
Third party service provider and other partner organizations. See 15.3. WFP enumerators collect information directly visiting the shops.
15.2. Frequency of data collection
While for most products there is no problem with having less control over this aspect of sampling, since few prices change within a week and the price collectors' choice of exact time will not have any noticeable effect on the result. Ideally, however, price collectors should aim to collect prices from a given shop on the same day each week. Spreading price collection across the week is best achieved by setting a schedule for the price collectors to visit shop and traders on different days of the week. Often and security permitting, price collectors are given the option of deciding the day and hour of visits themselves within given period such as a couple of days in the middle of the week. Where prices are volatile in the short term, they should be collected several times per week from the same outlet. Examples of products that often show sharp and perhaps irregular price changes are fresh fruits, vegetables, fish and fuels. The sample will then have to be specified in terms of time so that it is representative of household purchasing patterns.
15.3 Data collection
Generally, data from retail sector will be collected on a weekly basis.
15.4 Data validation
Data validation is performed at CO level when submitted through the Reporting application; additional consistency and quality checks are performed at HQ level.
15.5 Data compilation
Geographical and time aggregation is performed automatically in the Reporting application. Aggregation is done by reporting quantity to the Unit of Measure indicated in 4 and averaging prices for each commodity in all shops of the Market collected during the month. Price values for truncated weeks are weighted by the number of days that fall in the month reported. First data is aggregated at market level over the definition of the week as per ISO8601, with exception of the start day of the week (Sunday in place of Monday). Methodology for aggregation follows accessibility and clarity as per 10.5.
15.6 Data adjustment
Data are not adjusted.

16. Comment
General notes:

Definition of Markets

Data collected from Retail and Wholesale sectors is often referred to as Market level data. In this case, data is later aggregated following the definition of markets that borrows from the "law of one price"; price of an identical commodity or asset traded anywhere should have the same price regardless of the location. If trade restrictions or different transportation costs are present, then we must consider the locations as different. In this case, we consider the entire settlement surrounding a marketplace area as the "Market".

Rarely large urban settlements, where purchasing power strongly differs, are considered as having different markets.

Annex 3: Remote Household Survey: COVID-19 Monitoring

Introduction: Hello sir/ma'am, my name is #OPERATOR#, and I am calling from GeoPoll Polling Agency on behalf of the United Nations World Food Programme. Currently, WFP is conducting a survey on xxxxxxxxxxxxx. Sir/ma'am, your information will help us understand the situation in your community.
We remind you that all the information will be strictly kept confidential and be used only for the purpose of the survey. You will receive #TOPUP#! of communication credit as an incentive for the participation of the survey.
Are you interested in participating in this survey, now or another time?

1)Yes ->
2)No -> Thank you for your time, you will be removed from today's survey.

DEMOGRAPHIC SECTION:

QUESTION	SKIP PATTERN
What is the gender of the respondent? [OPERATOR: LISTEN TO THE VOICE AND CHECK THE BOX WHETHER THE RESPONDENT IS MALE OR FEMALE] 1. MALE 2. FEMALE	
How old are you? [INELIGIBLE IF THE AGE IS LESS THAN 18]	
Currently, which province [ADM1] does your household reside in? [DROP DOWN LIST]	
Currently, which district [AMD2] does your household reside in? [DROP DOWN LIST]	
Currently, which village\municipality [ADM3] does your household reside in?	
How many children and adults are PERMANENTLY living in this household?	
How many of them are children? [THOSE UNDER THE AGE OF 17]	
How many of them are adults? [Above the age of 17]	
How many of the adults in your household are above the age of 60?	

FOOD CONSUMPTION SECTION:

QUESTION	SKIP PATTERN
Now I will ask you about the foods and drinks you and your household ate or drank in the last 7 days.	

How many days over the last 7 days, did members of your household eat starches, roots and tubers such as rice, maize, pasta, bread, sorghum, millet, potato, yam, cassava, white sweet potato? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]	
How many days over the last 7 days, did members of your household eat pulses and nuts such as beans, lentils, cowpeas, soybean, pigeon peas and peanuts or other nuts? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]	
How many days over the last 7 days, did members of your household consume fresh milk, sour milk, yogurt, cheese or other dairy products? [Excluding margarine/butter or small amounts of milk for tea/ coffee] [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]	
How many days over the last 7 days, did members of your household eat meat [Beef, pork, lamb, goat, rabbit, chicken, duck, other birds, insects, liver, heart and / or other organ meats], eggs or fish [Including fresh fish, canned fish, and / or other seafood] as a main dish, so not as a condiment? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]	
How many days over the last 7 days, did members of your household eat vegetables or leaves such as carrot, red pepper, pumpkin, orange sweet potatoes, spinach, cassava leaf, okra, and/or other leaves/vegetables? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]	
How many days over the last 7 days, did members of your household eat fruits such as banana, apple, mango, papaya, apricot, peach and/or other fruits]? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]	
How many days over the last 7 days, did members of your household eat oil/fat/butter such as Vegetable oil, palm oil, groundnut oil, margarine, other fats / oil? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]	
How many days over the last 7 days, did members of your household consume sugar, or sweet such as sugar, honey, jam, cakes, candy, cookies, pastries, cakes and other sweets and sugary drinks? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]	

ACCESS TO FOOD AND MARKET

QUESTION	SKIP PATTERN
What is the main source of food for your household? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER]	If the response is 1-6-> Skip to FOODACCESS

1. Own production 2. Market \ Grocery store 3. Exchange labor for food 4. Gift from family, relatives or friends 5. Food assistance by humanitarian agencies 6. Food assistance by Government 7. Other	
Please specify what is the main source of food for your household?	
In the past 7 days, has there been any time when your household did not have sufficient quantities of food needed for the household? 1. Yes 2. No	If the response is No-> Skip to FOODSTOCK
What was the main reason why your household did not have sufficient quantities of food needed? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER] 1. Shortage of food in the market \ grocery store 2. Increase in the prices of food 3. No money to buy food 4. No food in the house 5. Unable access the market \ grocery store 6. Markets \ grocery stores are closed 7. Other	If the response is 1-6-> Skip to FOODSTOCK
Please specify the main reason why your household did not have sufficient quantities of food needed? [OPERATOR: SUMMARIZE THE RESPONSE IN FEW WORDS]	
Does your household currently have food stock? 1. Yes 2. No	If the response is No -> skip to MARKETACCESS
How long do you think the food stock would last? 1. Less than one week 2. 1 week 3. 2 - 3 weeks 4. 1 month 5. More than 1 month	
In the past 7 days, has there been a time when you or your household could not access the market\ grocery store?	

1. Yes 2. No	If the response is No-> skip to Next section
What was the main reason why you or your household could not access the market\grocery stores in the past 7 days? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER] 1. Market\grocery stores were closed 2. Market\grocery store is too far 3. Travel restrictions 4. Security concerns 5. Concerned about going out of the house due to disease outbreak 6. All adult members of the household too sick to go out 7. All adult members quarantined in the house 8. Other	If the response is 1-7-> skip to Next section
Please specify the main reason why you or your household members could not access the market\grocery stores? [OPERATOR: SUMMARIZE THE RESPONSE IN FEW WORDS]	

ACCESS TO HEALTH SERVICES:

QUESTION	SKIP PATTERN
Where do you usually go when you or your household members get sick? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER] 1. Hospital \ Clinic 2. Health Center 3. Traditional healer 4. Religious healer 5. Self-medication 6. Pharmacy to buy medicine 7. Stay at home	
Do you or your household normally have the access to the health center\hospital\clinic and other health services such as pharmacies? 1. Yes 2. No	
In the past 30 days, did you or your household members face challenges accessing the health center\hospitals\clinic and other health services? 1. Yes	If the response is No -> skip

2. No	to MEDS
What is the main reason why you or your household could not access the Hospitals\Clinics\Health Centers and other health services? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER] 1. Hospital\health center is far 2. Hospitals\Health centers are closed 3. Medical personnel didn't come at home 4. Lack of money 5. Travel restrictions 6. All members of the family too sick to travel 7. Denied access because it's out of capacity 8. Other	If the response is 1 -7 -> skip to MEDS
Please specify the main reason why you or your household could not access to Hospitals\Clinics and other health services? [OPERATOR: SUMMARIZE THE RESPONSE IN FEW WORDS]	
In the past 30 days, did you or your household members face challenges purchasing the necessary medicine? 1. Yes 2. No	If the response is No -> skip to the next section
What is the main reason why you or your household face challenges purchasing the necessary medicine? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER] 1. Pharmacies\health center were closed 2. Pharmacy\health center is too far 3. Pharmacy ran out of medicine 4. No money to buy medicine 5. Other	If the response is 1-4-> skip to the next section
Please specify the main reason why you or your household face challenges purchasing the necessary medicine. [OPERATOR: SUMMARIZE THE RESPONSE IN FEW WORDS]	

HEALTH AND ILLNESS SECTION:

QUESTION	SKIP PATTERN
In the past 30 days, has anybody in your household been sick? 1. Yes 2. No	If the response is No -> skip to next section
How many of your household member were sick in the past 30 days?	
The next set of questions are only about the person who was sick. [If there were multiple sick person in the household: The next set of questions are only about the eldest member of the household among those who were sick]	
In the past 30 days, did he\she have cough? 1. Yes 2. No	
In the past 30 days, did he\she have cough with breathing difficulties? 1. Yes 2. No	
In the past 30 days, did he\she have fever? 1. Yes 2. No	
In the past 30 days, did he\she have fatigue? 1. Yes 2. No	
In the past 30 days, did he\she have diarrhea? 1. Yes 2. No	
In the 30 days, did he\she seek medical care either at home or in the hospital\health center? 1. Yes 2. No	If the response is No-> skip to Next section

In the 30 days, was he\she able to receive the medical care either at home or in the hospital\health center? 1. Yes 2. No	If the response is No -> skip to Next Section
Was he\she hospitalized? 1. Yes 2. No	

ADDITIONAL:

QUESTION	SKIP PATTERN
Does your household have difficulty ensuring the availability and use of soap for handwashing? 1. Yes 2. No	If the response is No -> skip to next section
What are is your most important concern under the current circumstances? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER] 1. Shortage of food 2. Increase in food prices 3. Shortage of medicine 4. Disruption of medical service 5. Disruption of educational institutes 6. Getting sick 7. Lack of work 8. Disruption of livelihood source 9. Travel restrictions 10. No concerns 11. Other	If the response is 1-10 -> End Survey
Please specify what is your most important concern under the current circumstances? [OPERATOR: SUMMARIZE THE RESPONSE IN FEW WORDS]	

Annex 4: MARKET FUNCTIONALITY INDEX

Reduced tool for mobile data collection

X. Size of the shop (*observational questions for sampling*)

X.1 Which type(s) of customers does your shop serve?

[ ] Households

[ ] Traders

A. Assortment of essential goods

A1. Which products are normally sold in your shop?

1. Cereals
2. Roots and Tubers
3. Legumes, Nuts and Seeds
4. Fruits and Vegetables
5. Milk and Dairy Products
6. Meat, Fish and Eggs
7. Oils and Fats
8. Herb, Condiments and Spices
9. Essential Non-food items

Note that a product list is associated to each of the nine groups

***

B. Availability

B1. Are there products that are currently scarce in your shop? [Y]/[N]

If yes, for which product group?

[Y]/[N] - Cereals

[Y]/[N] - Food other than cereals

[Y]/[N] - Essential NFIs

If selected, please specify the product from the list.

B2. Are you afraid of running out of stocks within one week from now? [Y]/[N]

If yes, for which product group?

[Y]/[N] - Cereals

[Y]/[N] - Food other than cereals

[Y]/[N] - Essential NFIs

If selected, please specify the product from the list.

***

C. Prices

C1. Are there products whose prices greatly increased in the last 1 month? [Y]/[N]

If yes, for which product group?

[Y]/[N] - Cereals

[Y]/[N] - Food other than cereals

[Y]/[N] - Essential NFIs

If selected, please specify the product from the list.

C2. If we ask you what the price will be in a week from now, would you/they normally get it right? [Y]/[N]

If no, for which product group?

[Y]/[N] - Cereals

[Y]/[N] - Food other than cereals

[Y]/[N] - Essential NFIs

If selected, please specify the product from the list.

D. Resilience of supply chains

D1.1 Considering your customers' regular demand, would your current stocks last at least one week? [Y]/[N]

D1.2 If you place an order today, do you expect to receive your products within a week? [Y]/[N]

Annex 5: master web questionnaire

master%20web%20questionnaire.xlsx