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Market Functionality Index

Practical Guidance



World Food
Programme

December 2021

Market Functionality Index – Practical Guidance

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Short Introduction

The Market Functionality Index (MFI) is a quantitative measure designed by WFP's Research, Assessment & Monitoring (RAM) and Supply Chain (SC) Divisions to benchmark market functionality along the following nine dimensions: 1) Assortment of essential goods, 2) Availability, 3) Price, 4) Resilience of supply chains, 5) Competition, 6) Infrastructure, 7) Services, 8) Food quality, and 9) Access and protection.

The MFI will be part of WFP's new Business Process Model for cash-based transfers. Specifically, it is expected to be used during the intervention design phase in the process 'Market assessment and risk identification', which is one of several feasibility assessments informing the choice of transfer modality. Additionally, it is supposed to be applied also during the delivery phase in the process of 'Market situation monitoring' to detect changes to market functionality over time. Currently, the MFI tool is being tested as *beta* version.

This document provides simple steps for conducting a market assessment using the MFI package, including the questionnaires in several languages and other tools for data management and data exchange. For more detailed rationale for the MFI and the procedure to calculate the index, please see [Technical Guidance](#). The [Sampling Guidance](#) provides guidance on the sampling methods and related practical decisions in a trader survey.



Full MFI or Reduced MFI (MFir)

The MFI tool is offered in two versions: full version (MFI) and reduced version (MFir).

The official guidelines for VAM/Supply Chain Officers outline that the full version should be employed as a bare minimum for assessing the feasibility of and risks associated with CBT operations.

In general, **we strongly recommend that MFI full survey is used** as long as there are no challenges in movements within a country. In case there are movement restrictions imposed or safety concerns for staff, you should opt for the reduced version (MFir) which can be conducted over mobile calls.

The reduced version is a significantly simplified version of the full survey in order to facilitate the data collection process over mobile calls. However, the reduced version only covers 4 dimensions whereas the full version covers 9 dimensions.

The dimensions that are and are *not* captured in the reduced version are described in the next page.

In cases where remote data collection is the only viable option, **we encourage to use the set of the exact questions presented in this document and in the linked XLS Form files, without any further modifications.** This set of questions can be augmented based on additional context-specific information needs.



Questionnaires

The full MFI tool comes with two questionnaires: one at the market level (Market Survey) and the other at the trader level (Trader Survey). Overall, there are nine dimensions and each dimension consists of two to eight questions. **In the reduced version (MFIr), there is only one questionnaire (Trader Survey) and this questionnaire covers four dimensions.**

Please note that for full version:

- Both surveys are programmed in one XLS form (survey tool) although there are two surveys; and
- Some questions appear in both market and trader surveys, while other questions only appear in one or the other. For instance, the questions in dimension *G. Services* will only appear if you are in the trader survey mode whereas the questions in dimension *I. Access* will only appear if you are in the market survey mode; and
- **For each market, one market survey must be completed** while multiple (minimum 7) trader surveys are expected to be filled out.

Dimension	Version		Module	
	Full	Reduced	Market	Trader
A Assortment	Yes	Yes	Yes	Yes
B Availability	Yes	Yes	Yes	Yes
C Price	Yes	Yes	Yes	Yes
D Resilience	Yes	Yes	No	Yes
E Competition	Yes	No	Yes	No
F Infrastructure	Yes	No	Yes	Yes
G Services	Yes	No	No	Yes
H Quality	Yes	No	Yes	Yes
I Access	Yes	No	Yes	No

You can find the complete list of questions [in this Quick Overview file](#) (go to the tab "Questions").

Easy-To-Follow Steps

Download XLS Form & Media files

In [this folder](#), there are (a) XLS forms (*full and reduced versions prepared separately*); (b) media/image files; and (c) CSV files.

(a) XLS form – **Both full and reduced versions**

- Full Version (MFI)

Most parts of the form are *not editable* for the purpose of version control, but there are sections where you may add questions that are specific to your project or local context although they will not be part of the MFI scoring.

Any questions that you would like to ask traders can be added inside the group named *USER_Trdr_GR*. And other questions that you would like to be added in the market survey can be inserted inside the group named *USER_Mkt_GR*. Once they are added, you must enable the group as the group is disabled as default setting. You may also add new answer choices after the last line in the sheet *choices*.

If you do not need to add any customized (to your Country Office) questions, you do not have to do anything in this form.

The default language is set to be English. To change the default language of the surveys, update the cell *D2 (default_language)* in the sheet *settings*. The options are:

- English (en)
- Spanish (es)
- French (fr)
- Portuguese (pt)
- Arabic (ar)

- Reduced Version (MFIr)

This form is partly adaptable. Some key fields such as variable names, choices names and labels are not editable. In the choices sheet, the parts that are *not editable* are highlighted in light orange.

Some questions may be added in the *survey* sheet although they will not be part of the MFI scoring.

Depending on the context of each country, some items may be inapplicable and/or other important items may be missing, in which case you may edit the *choices* sheet.

(b) Media files – Full version only

This is a compressed zip file which contains 9 image (.png) files. This zip file should be decompressed (unzipped) and then uploaded as attachment (media files) in the data collection server (e.g. ODK Server, Kobo Collect, ONA, etc.)

(c) CSV files – Both full and reduced versions

There are two csv files that must be filled out by you: *Prefill_1_AdminNames.csv* and *Prefill_2_EnumeratorNames.csv*, and then uploaded as attachment (media files) as well.

Prefill Forms

Before filling out the first .csv file *Prefill_1_AdminNames.csv*, please read the instructions provided in the file *README Prefill_1_AdminNames.xlsx*.

It is straightforward how to fill out the second .csv file *Prefill_2_EnumeratorNames.csv* but contact [us via email](#) if you run into any issues.

Create Project in Data Collection Server

There is more than one data collection platform you may use such as [MODA](#), [ONA](#), or [Kobo](#). If there is no preferred platform conventionally used in your Country Office, you could explore these options and choose what you feel more comfortable with. Note that SurveyCTO offers limited free version (number of surveys that can be collected is capped at maximum 200 a month) although it has more functionalities. The other platforms offer free service.

Download Data from Server (Important)**ONA / MODA**

Download setting must be:

Setting	Choice
File Type	CSV
Delimiter	/ (Slash)
FROM ... TO ...	All period
Form Version	--Export all data--

Export data

File type

CSV

▶ [Show advanced export options](#)

Export CSV file Cancel & Exit

and click “[Show advanced export options](#)” to expand the options list to set as following:

<input type="checkbox"/>	Split select multiple answers into separate columns
<input checked="" type="checkbox"/>	Remove prefixed group names
<input type="checkbox"/>	Include links of images
<input type="checkbox"/>	Include labels
<input type="checkbox"/>	Include labels only
<input type="checkbox"/>	Include reviews
<input checked="" type="checkbox"/>	Use 1 or 0 in split select multiples (default is True or False)
<input type="checkbox"/>	Use choice name in split select multiples (default is True or False)
<input type="checkbox"/>	Export with Choice Labels

Kobo Collect

Download setting must be:

Setting	Choice
Select export type	CSV
Value and header format	XML values and headers
Include data from all X versions	Checked
Include groups in headers	Unchecked (empty)

Downloads

Select export type:

Value and header format:

Advanced options ^

Export *Select Many* questions as...:

Include data from all **19** versions

Include groups in headers
Group separator:

Include media URLs

Save selection as...

Select questions to be exported [Select all](#) | [Deselect all](#)

- SvyStartTime
- SvyDate
- SvyEndTime
- MFIBetaWelcome
- Adm0Code
- Adm1Code
- Adm2Code
- MarketID
- nationality

Apply saved export settings:

EXPORT

Once you click the button **EXPORT**,

Exports

Type	Created	Language	Include Groups	Multiple Versions	
CSV	Today at 10:48 AM	XML values and headers	No	Yes	<input type="button" value="Download"/> <input type="button" value="Delete"/>

You can **Download** the generated csv file.

Upload Data to DataBridge

Once you download the data file, please upload it to the [Data Library](#) along with the [meta-data](#) and the questionnaire used. More detailed guidelines as to how to use the Data Library is available [here](#). (Note: Data Library can only be connected via WFP internal network just like WFPgo. If you're outside of the office, you must use VPN – Cisco AnyConnect.)

For receiving your MFI results/scores, please upload (a) the XLS Form used as well as (b) the survey data to the [MFI DataBridge](#). The XLS Form you upload must be an Excel file, and the data file that you upload must be a **csv** (comma-separated) file. **Please contact your RB focal point for any technical support.**



Within 24 hours from the time XLS Form and the survey data files are uploaded to the MFI DataBridge, you will be able to download the processed data that includes MFI results from the DataBridge. Go to **Surveys**, click the **Details** and then **Data Export** tab, in order to download the processed data, available in either csv or JSON format:



MFI DataViz: Overview & Toolbox

Once the data is uploaded to the DataBridge and processed, the MFI scores/results will automatically be visualized in the MFI Dataviz. There are currently two dashboards: (1) [MFI Overview](#) that provide a summary of MFI results:

Market Functionality Index - Congo

WFP | VAM & SC CBT Markets



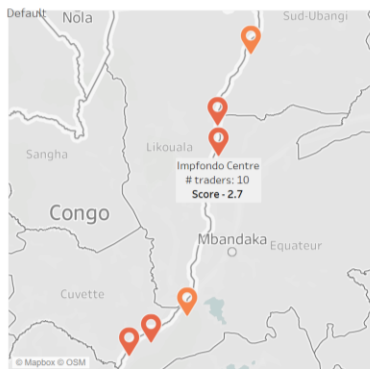
Country: Congo
Region: All
Market: All

Threshold: 5
Pick a value of the MFI to know the % markets above it

Country Snapshot			Weakest Dimension across markets
Number of traders	# Markets	% Markets above Threshold	
49	6	0.0%	Price

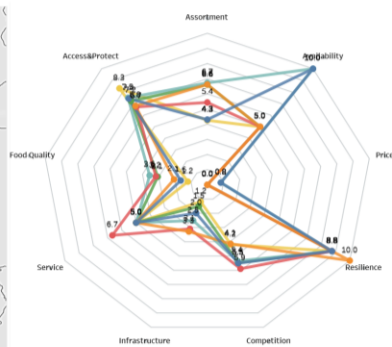
Market Functionality Map

Markets are coloured according to their MFI score. Hover to see the actual score, click to use them as filters. Explore how score vary from F2F to reduced.



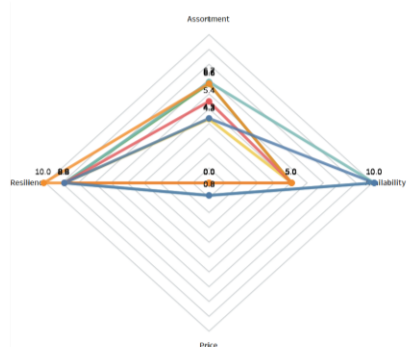
MFI Dimensions - Radar

The radar displays the market scores by dimensions for the full MFI. Hover on the dimensions scores to explore their breakdown.



MFI Dimensions - Radar

The radar displays the market scores by dimensions for the reduced MFI. Hover on the dimensions scores to explore their breakdown.



Markets Comparison

Score by dimension ranked by MFI Final Score. Use color coding to identify weakest pillars. Use the table as a filter on Market/Dimension/Market & Dimension for the viz below.

MarketName	Access&Protection	Assortment	Availability	Competition	Food Quality	Infrastructure	Price	Resilience	Service	MFI Score
Liranga Centre	7.5	6.7	10.0	5.4	3.6	2.5	0.8	8.8	5.0	3.4
Betou Centre	7.4	4.3	10.0	5.5	1.6	2.0	0.8	8.8	5.0	3.2
Impfondo Centre	6.7	5.4	5.0	5.9	3.2	3.1	0.0	8.8	6.7	2.7
Dongou Centre	6.8	6.6	5.0	4.1	2.1	3.3	0.0	10.0	5.0	2.6
Loukolela Centre	7.2	6.6	5.0	5.5	3.1	1.5	0.0	8.8	5.0	2.6

Market Dimension Breakdown

Identify the drivers the scores by sub-sections. All scores have been normalized into a scale from 1 to 10 to ease understanding. Click on the Dimension to filter the viz on the right side.

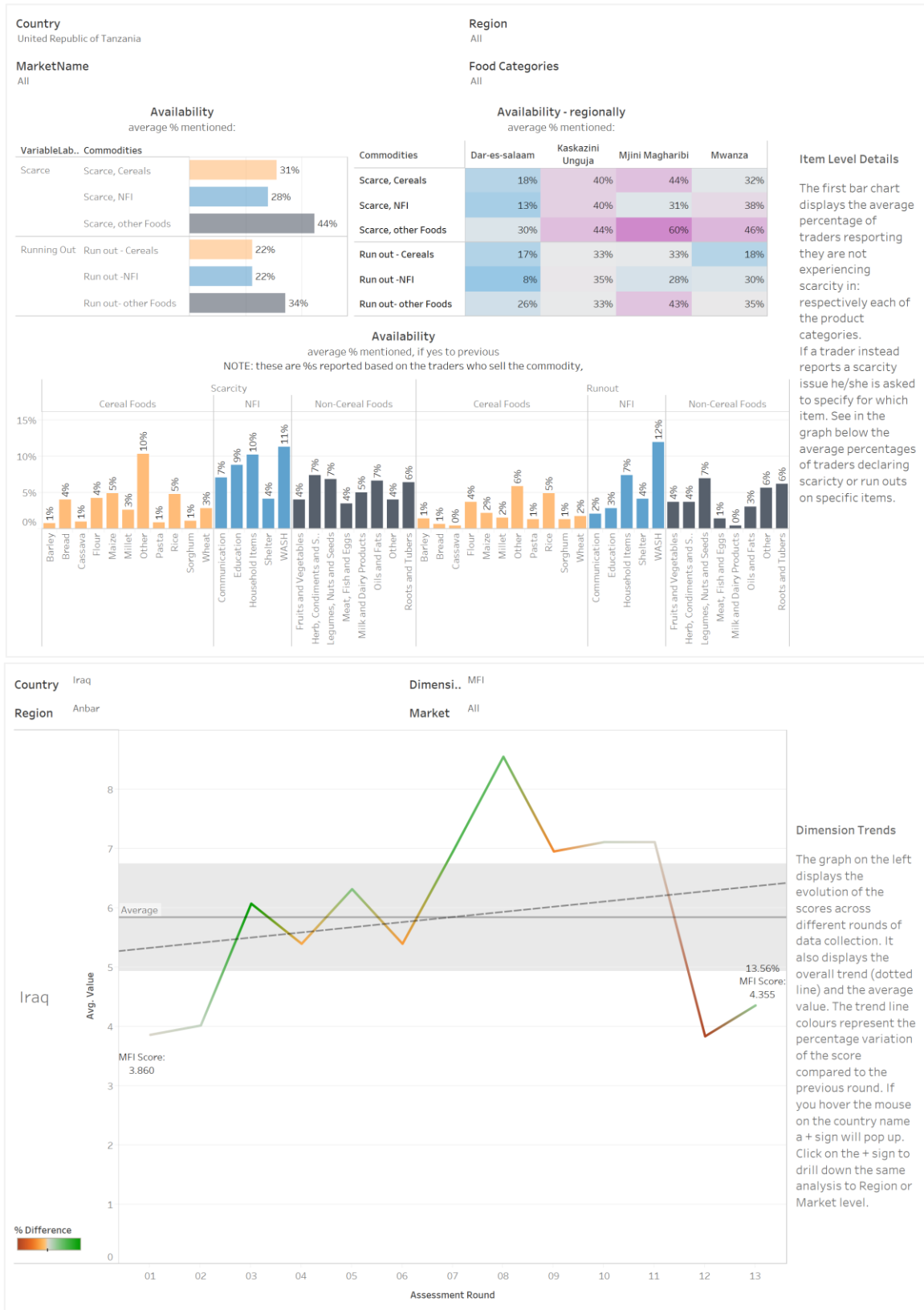


Breakdown - Question Level

Identify the drivers drilling down to question level. Note that all questions in the MFI questionnaire have been adjusted for polarity.

Dimensi..	Subsections	Question	Market Observation
AccessP..	AccessProtection - Access	No Natural Disaster	!
		No Seasonal Difficulty	✓
		Not Far From Major Road Network	✓
		No Overall Security	✓
Assort..	Assortment - Assortment	Cereal Food	!
		Household Items	✓
		NFI - Communication	!
Betou Centre	Resilience - Disruption Vulnerability	NFI - Education	!
		NFI - Health	✓
		NFI - Shelter	✓
		NFI - WASH	!
		Other Food	✓
		SKU Between 1-50	✓
		SKU Between 51-200	!
		SKU Between 201-1,000	!

And (2) [MFI Toolbox](#) for cross-sectional **item-level analyses** and **time-series analysis**:



Country Iraq

Region Anbar

Market All

Dimensi.. MFI

Market All

Avg. Value

MFI Score: 3.860

MFI Score: 4.355


13.56%

Dimension Trends

The graph on the left displays the evolution of the scores across different rounds of data collection. It also displays the overall trend (dotted line) and the average value. The trend line colours represent the percentage variation of the score compared to the previous round. If you hover the mouse on the country name a + sign will pop up. Click on the + sign to drill down the same analysis to Region or Market level.

MFI Report Template

Finally, we provide a [MFI Report Template](#) we encourage you to use for creating a report:



FINDINGS BY MFI DIMENSION: ASSORTMENT

ASSORTMENT

The assortment of essential goods answers to two questions:

- Can beneficiaries find all of their essential needs in the market?
- Do they have a wide range of choice?

Essential needs refer to what households require to ensure minimum living standards (items such as food, shelter, basic household items, safe drinking water, sanitation and hygiene or healthcare). To evaluate choice, the MFI investigates the maximum number of commodities, or Stock Keeping Units (SKUs) sold in outlets in the market.

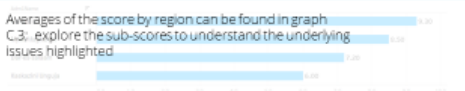
FINDINGS

INSERT KEY FINDINGS ON ASSORTMENT HERE.

Cover the most significant findings; focus on weakest areas; add information from the context to explain findings; explore figures at the product category level until the item level, if relevant.

Average Score by Region

Averages of the score by region can be found in graph C.3; explore the sub-scores to understand the underlying issues highlighted.



Assortment by Commodity Category

Dig further on the scores using product category statistics and commodity item statistics. The latter can be found in page D.2 of the Toolbox.

Commodity	Dar-es-Salaam	Kaskazini Unguja	Mjini Magharibi	Mwanza
MFI Household Items	100%	100%	100%	100%
MFI Health	10%	0%	88%	80%
MFI Shelter	60%	0%	100%	100%
MFI WASH	100%	100%	100%	100%


% of assessed markets in each region where at least 1 trader was selling the item in question

RECOMMENDATIONS - ASSORTMENT

Operational recommendations on assortment go here.

[Access the MFI online Toolbox](#)

You can easily populate the empty sections with the graphs generated by the MFI Toolbox in addition to any qualitative information/analysis to produce a complete report like below:



TANZANIA MARKET ASSESSMENT: ASSORTMENT


ASSORTMENT

The assortment of essential goods answers two questions:

- Can beneficiaries find all of their essential needs in the market?
- Do they have a wide range of choice?

Essential needs refer to what households require to ensure minimum living standards (items such as food, shelter, basic household items, safe drinking water, sanitation and hygiene or healthcare). To evaluate choice, the MFI investigates the maximum number of commodities, or Stock Keeping Units (SKUs) sold in outlets in the market.

Average Score by Region



FINDINGS

Average scores by region for assortment varied between 5 in Kaskazini Unguja (where only Mkokotoni market was assessed) and 9.3 in Mwanza. Although there are a few exceptions, the majority of markets in Dar es Salaam, Mjini Magharibi and Mwanza have decent assortment, and it is possible to buy not only food and household items but also other essential goods including Water, Sanitation and Hygiene (WASH) items, some health, shelter, education and communication items, medicines, construction materials, household items, goods for school and for communications. In Kaskazini Unguja's Mkokotoni market, however, health and shelter items were not being sold.

	Dar-es-salaam	Kaskazini Unguja	Mjini Magharibi	Mwanza
Cereals	90%	100%	100%	100%
Non-cereal foods	100%	100%	100%	100%
Household items	100%	100%	100%	100%
Communication	40%	100%	88%	80%
Education	70%	100%	75%	100%
Health	10%	0%	88%	80%
Shelter	60%	0%	100%	100%
WASH	100%	100%	100%	100%

% of assessed markets in each region where at least 1 trader was selling the item in question

Market	Score
Dar es Salaam	
Ilala (Buguruni)	9.0
Tegeta Nyuki	9.0
Temeke (Tandika)	8.0
Kariakoo	8.0
Kinondoni (Tandale)	7.0
Mwananyamala	7.0
Ilala Boma	7.0
Mawasiliano	7.0
Mabibo	6.0
Stereo	4.0
Kaskazini Unguja	
Mkokotoni	5.0
Mjini Magharibi	
Mwanakwerekwe	10.0
Saa Teni	10.0
Mombasa Kwa Mchina	9.0
Darajani	9.0
Kwa Mabata	8.0
Ngalawa	8.0
Jumbi	7.0
Kwa Haji Tumbo	7.0
Mwanza	
Buhongwa	10.0
Mkuyuni	10.0
Kitangiri	10.0
Ibungiro	10.0
Sabasaba	10.0
Mbugani	9.0
Nyegezi	9.0
Kirumba	9.0
Mirongo	8.0
Buzuruga	8.0

[Access the MFI online dashboard](#)

And... this is it!

Annex A. Field Implementation (Full Version Only)

Enumerator Training

While a formal training guide is still being developed, we encourage you to use the printable version of the questionnaires for the training, which can be found in [this folder](#).

We strongly advise that at least a full day training is provided, a half day spent in a “classroom” where you go over the questionnaire with the enumerators together and the other half day spent in the field (a nearby marketplace from the training venue) for field practice.

This will not only help enumerators get familiar with the surveys but also give them a chance to bring any technology-related issues identified during the field practice to your attention. **Good and sufficient enumerator training is crucial for ensuring high data quality.**

Logistics

Since the geographical characteristics are different in each area where the assessment is conducted, there are no hard guidelines regarding logistics. We provide general suggestions here, but you should adjust the plan to maximize the efficiency of the assessment.

As lists of the trader names may not be available until your visit to the field, the actual selection of traders will often happen on the spot. In that case you and/or team leader (field supervisor) should make sure that the range of traders (as shown in the previous table) is covered by enumerators.

From our experience, trader survey takes about 30 minutes and market survey takes about 20 minutes on average. This means a team of 2 enumerators and 1 team leader could cover (roughly) 1 market a day assuming 8 hours of work a day. We recommend that you task the market survey with the team leader while the team leader also:

- Select traders for enumerators to interview in the market; and
- Identify the key resource person in the market and conduct the trader survey; and
- Provide general oversight

Depending on how close the markets are from each other, a team leader could cover more than 1 market a day.

To-Do's During Data Collection

WFP officer and team leaders should participate in the field work, interact with traders, and supervise enumerators preferably during the entire period of data collection. If WFP officer

cannot be present throughout the data collection, it is still advised that the officer be present in the field for the first two days at least.

During the field work, supervisors must review completed questionnaires on a regular basis (if not daily) at the end of the day. Having a daily debriefing session with enumerators (either at the end of the day or in the morning of the following day) is also important. During this session, enumerators could:

- bring up any logistical difficulties in the field; and
- ask for any clarification needed on the questions in MFI tool

and you should find solutions together and communicate them to all enumerators.



Annex B. Useful Resources

GUIDANCE NOTES

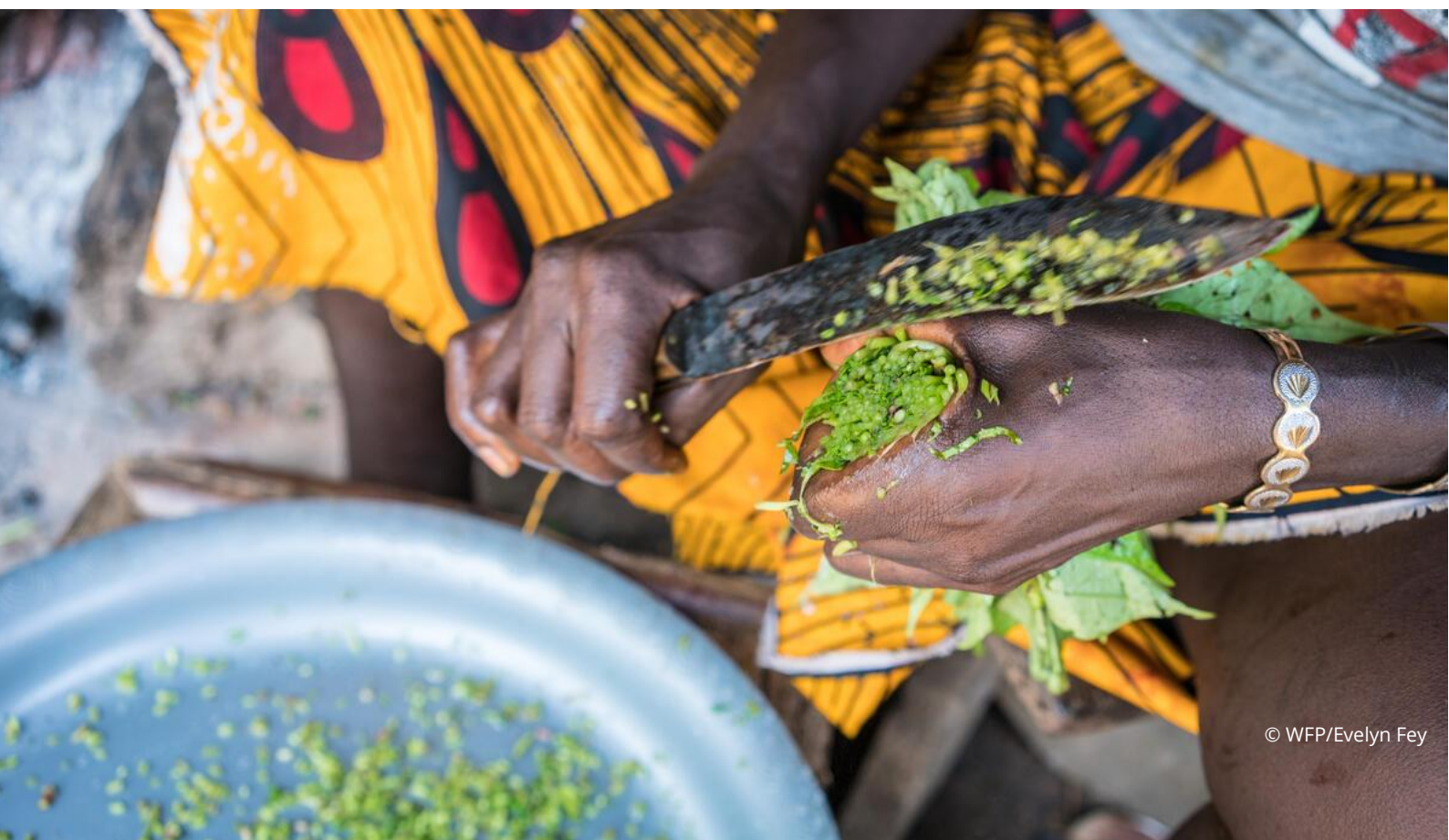
- [Technical Guidance](#)
- [Sampling Guidance](#)
- [Frequently Asked Questions](#)

LINKS

- [Questionnaire Overview](#)
- [XLS form](#)
- [Training Material](#)
- [Data Library Platform / Data Library User Guide](#)
- [MFI DataBridge](#)
- [MFI Dataviz: Toolbox](#)
- [MFI Report Template](#)

DATA COLLECTION PLATFORMS

- [MoDa](#)
- [Kobo](#)
- [ONA](#)



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