



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Guidelines for Market-based Food Environment Assessments

Annexes



USAID
FROM THE AMERICAN PEOPLE

JANUARY 2024

About USAID Advancing Nutrition

United States Agency for International Development (USAID) Advancing Nutrition is the Agency's flagship multi-sectoral nutrition project, led by JSI Research & Training Institute, Inc. (JSI), and a diverse group of experienced partners. Launched in September 2018, USAID Advancing Nutrition implements nutrition interventions across sectors and disciplines for USAID and its partners. The project's multi-sectoral approach draws together global nutrition experience to design, implement, and evaluate programs that address the root causes of malnutrition. Committed to using a systems approach, USAID Advancing Nutrition strives to sustain positive outcomes by building local capacity, supporting behavior change, and strengthening the enabling environment to save lives, improve health, build resilience, increase economic productivity, and advance development. This project contributes to the goals of the U.S. Government's Feed the Future initiative by striving to sustainably reduce hunger and improve nutrition and resilience.

Disclaimer

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Planning

Annex I. Summary of Characteristics

A summary of characteristics will briefly describe the context of each field site at the subnational level, primary subnational geographic administrative units, and secondary subnational administrative units, respectively. This template will be used by research teams to select the secondary subnational administrative unit sites for the study. The template features location-specific socio-ecological factors that will be used to identify similarities and differences across locations. Additional columns may be added for additional locations.

Template

Socio-ecological Factor	Location 1 [ADD NAME HERE]	Location 2 [ADD NAME HERE]	Location 3 [ADD NAME HERE]
Population			
Size (sq. mi)			
Population density (sq. mi per capita)			
Number of geographic (subnational) units within selected location			
Geography type			
Agricultural products produced and consumed			
Percent (%) of under-5 children who are stunted (low height-for-age)			
Percent (%) of households with moderate or severe food insecurity (specify definition used)			
Socio-linguistic factors and notable cultural norms (including with regard to gender interactions)			

Socio-ecological Factor	Location 1 [ADD NAME HERE]	Location 2 [ADD NAME HERE]	Location 3 [ADD NAME HERE]
Stressors [climate, conflict, condition of infrastructure (roads, electricity, water), etc.]			
Accessibility during rainy season (specify months considered)			
Annual rainfall (mm)			
Additional contextual considerations			

Annex 2. Tips for Market-based Field Research

Below are tips to help you prepare for conducting successful interviews:

Quiet and conformable space. Hold interviews in a quiet, private place with minimal noise to avoid distractions and any dynamics that may influence responses. The space should also be comfortable and convenient for the vendor informant. Go to a vendor's space or a nearby space rather than asking them to come to your space.

Convenient time. Schedule interviews at a time that is convenient for the selected vendor informants.

Introduce study. Introduce yourself and the study, including the purpose, the rights of the vendor, voluntary nature of the study, confidentiality rules, how information will be used, and how they can contact you or the study team.

Informed consent. Explain the requirement of vendor informant consent before providing the informed consent form to sign.

Establish rapport. Start the interview by establishing rapport and putting the vendor at ease before asking interview questions.

Body language. Be mindful of body language during the interview of both yourself and that of vendors. An effective way to create a relaxed atmosphere is to be relaxed; this generally facilitates the vendor being relaxed. Be mindful of nonverbal cues in guiding your interview, such as signaling if the vendor is ready to move on to the next question.

Speak clearly with pauses. Speak clearly with pauses to allow the vendor to process your questions and reflect on their responses. Do not interrupt. Allow moments of silence, especially if the vendor seems to be reflecting.

Engaged listener. Ask questions and then be an active listener. Do not interrupt the vendor. Be patient and engaged in listening.

Professional tone. Maintain a professional tone during the interviews, and be mindful of researcher-vendor informant power dynamics.

Respect. Always respect your vendor and what they tell you, even if their responses, knowledge, or worldview is in contrast to your own. Be aware of local customs and protocols and follow these to the best of your ability.

Gratitude. Remember that interviews are voluntary, and show gratitude to your vendors for participating and sharing their time, experiences, knowledge, and perspectives.

Neutral. Remain neutral and do not share your perspective with the vendors, including agreeing or disagreeing.

Simple language. Use simple language in speaking with vendors without being condescending. Use language that matches your vendors' level of knowledge and competence. Your questions should be clear, brief, and unambiguous. Prepare alternate ways of asking the same question. You may need to add prompts to rephrase questions during interviews if you experience that the vendor seems confused or asks to clarify the question. If there is silence and the vendor seems confused, rephrase the question.

Do not ask leading questions. Make sure your questions do not lead vendors to a specific answer. Never lead a vendor by suggesting an answer or giving your own opinion. Be patient and provide vendors time to think and reflect.

Do not force responses. Remember that interviews are voluntary, and your vendors do not need to respond to any questions. Do not force your vendors to answer questions, and remind them that they do not need to answer a question if you notice they are uncomfortable or seem conflicted.

Redirect interviews if needed. Vendors can sometimes discuss off-topic items. Allow vendors to talk and wander a little, but not for too long. Redirect as needed without being forceful or disrespectful. You may need to interrupt if a vendor goes off topic for too long; in such cases, interrupt gracefully.

Incentives. You may provide incentives to vendors if specified in your Institutional Review Board (IRB) approval. However, you cannot provide incentives that can be deemed as coercive.

Hospitality. You may accept hospitality (e.g., a cup of tea) offered by the vendor if it is feasible for you.

Informed Consent

Annex 3. Informed Consent Forms

Annex 3a. Informed Consent for Formative Assessment

Social Mapping of Food Environment (Focus Group Guide)

Introduction: Good morning/afternoon. Thank you for taking the time to meet with me today.

My name is [INSERT NAME]. I work for [INSERT NAME OF RESEARCH ORGANIZATION]. We are working to carry out a research study to better understand open-air food markets in different geographic locations in [INSERT LOCATION]. We are interested in learning about the different types of markets and vendors that you purchase your food from.

You are invited to participate in a focus group discussion today about different types of markets and vendors, such as wet markets, mobile vendors, convenience stores, etc. that you have access to in your community. You have been invited to participate in the focus group in your capacity as a consumer who purchases food within your community.

Participation in this discussion is voluntary. If you choose to participate, your responses will not be identified with you in any way when the findings are shared. The discussion is expected to take approximately 1.5 hours to complete. There will be one break during this focus group. During the break, you'll be provided with some refreshments. You can leave at any time.

You may stop your participation in the focus group at any time with no risk to you.

The results of this discussion will be used to determine the types of markets and vendors that should be selected for our assessments of the types of foods available within markets in your community, as well as food prices and promotion. The results of this discussion will be compiled with these food environment assessments to better understand market food environments. Your name and identity will be removed from all reports.

The focus group has been approved by the Institutional Review Board (IRB) of XXX.

If you have any questions, concerns, or suggestions, please do not hesitate to contact me at [INSERT YOUR CONTACT].

Thank you for your consideration for completing this interview. I appreciate your time, knowledge, and expertise.

Do you have any questions about participating?

- *If yes, answer any questions.*
- *If no, move to the next question.*

Do you agree to participate in this survey?

- *If yes, Yes, I am willing to voluntarily participate in the focus group outlined above. By adding my signature to the focus group sign-in sheet, I give permission for you to include my interview responses in your study and other material (my name will not be included).*
- *If no, thank them for their time.*

Annex 3b. Informed Consent for Vendor Key Informants

Use the following script to introduce the study to potential vendors and obtain their informed consent.

Script

Hello. My name is [INSERT NAME]. I work for [INSERT NAME OF RESEARCH ORGANIZATION]. We are working to carry out a research study to better understand open-air food markets in different geographic locations in [INSERT LOCATION]. We are interested in documenting the different types of vendors and foods within markets, food prices, types of advertisements, and other characteristics of open-air food markets.

I would like to interview you for this study in your capacity as a vendor key informant for the [NAME OF SECOND ADMINISTRATIVE LEVEL]. Participation in this key interview is voluntary. If you choose to participate in this interview, your name and affiliation will be noted in an annex of the report, but your responses will not be linked to your name in the body of the report. This phone interview is expected to take approximately 30 minutes of your time to complete.

If you choose to participate in this interview, you will be requested to share information about the number and types of open-air markets available within the community.

You may stop your participation in this survey at any time with no risk to you. There are no incentives provided for your participation in this survey.

The results of this interview will be used to provide information on community access and availability of open-air food markets. In addition, the results of this interview will be compiled with additional interview results to report on findings to better understand how markets in this area work and the types of food available. **Your name and affiliation may appear in the annex of reports.**

Do you have any questions about participating?

- *If yes, answer any questions.*
- *If no, move to the next question.*

Do you agree to participate?

- *If yes, thank them for agreeing to participate and move to the next question.*
- *If no, thank them for their time and politely leave.*

Can we audio record the conversation?

- *If yes, proceed with audio recording. For focus group discussions, ensure that each person agrees.*
- *If no, say that it is no problem and proceed without audio recording.*

If you have any questions about the study, you may contact [NAME OF STUDY MANAGER] at _____.

Annex 3c. Informed Consent Form for Focus Group Participants

****Note:** The following prior informed consent form should be used to conduct focus groups on Assessment 2: Seasonal Food Availability Calendar.

When carrying out focus groups, the facilitator should reintroduce the study and study procedures to vendors. The facilitator will then request vendors sign individual consent forms. The facilitator should use the consent form text as script to introduce the study. Consent forms should be collected by the study team and stored in a safe place within the appropriate office location.

In populations where it is not appropriate to request signed consent, the facilitator should ensure recorded verbal consent is allowed as confirmed by the human subject's approval committee. Alternatively, a member of the research team can serve as a witness to sign the form (however, this may be uncomfortable if the vendor cannot read or write).

Consent Form

My name is [INSERT NAME]. I work for [INSERT NAME OF RESEARCH ORGANIZATION]. I am carrying out a research study to better understand the availability of fresh fruits and vegetables in open-air food markets in [INSERT LOCATION].

You are invited to participate in a focus group discussion today about different types of foods, such as fruits, vegetables, beans, and grains that are available in the market, including the seasons in which they are available. You have been invited to participate in the focus group in your capacity of [INSERT ROLE; example: a market vendor]. The other invited vendors are also [INSERT ROLE: example: market vendors].

Participation in this discussion is voluntary. If you choose to participate, your responses will not be identified with you in any way when the findings are shared. The discussion is expected to take approximately two to three hours to complete. There will be two breaks during this focus group, including one with some refreshments. You can leave at any time.

You may stop your participation in the focus group at any time with no risk to you.

The project aims to [INSERT PROJECT OBJECTIVE].

The results of this discussion will be used to make a seasonal calendar of availability of fresh fruits and vegetables. The results will be compiled with additional interview results to report on findings to better understand market food environments. **Your name and identity will be removed from all reports.**

The focus group has been approved by the Institutional Review Board (IRB) of [INSERT RELEVANT IRBs HERE - i.e., ORGANIZATION AND COUNTRY]

If you have any questions, concerns, or suggestions, please do not hesitate to contact me at [INSERT YOUR CONTACT].

Thank you for your consideration for completing this interview. I appreciate your time, knowledge, and expertise.

Do you have any questions about participating?

- *If yes, answer any questions.*
- *If no, move to the next question.*

Do you agree to participate in this survey?

_____ Yes, I am willing to voluntarily participate in the focus group outlined above. I give permission for you to include my interview responses in your study and other material (my name will not be included).

If no, thank them for their time.

Name of vendor

Signature of vendor

Name of team member

Signature of Research Team Member

Can we audio record the conversation?

- *If yes, proceed with audio recording. For focus group discussions, ensure that each person agrees.*
- *If no, say that it is no problem and proceed without audio recording.*

If you have any questions about the study, you may contact [the study manager] at _____.

Annex 3d. Informed Consent for Vendor Informants

Use the *following* script to introduce the study to potential vendor informants and obtain their informed consent.

Script

Hello. My name is [INSERT NAME]. I work for [INSERT NAME OF RESEARCH ORGANIZATION]. We are conducting a research study to better understand open-air food markets in different geographic locations in [INSERT LOCATION]. We are interested in documenting the different types of vendors and foods within markets, food prices, types of advertisements, and other characteristics of open-air food markets.

I would like to interview you for this study in your capacity as a market vendor. Participation in this interview is voluntary. If you choose to participate in this interview, your identity will remain anonymous. Your responses will not be linked to you in any way when the findings are shared. This interview is expected to take approximately 20 minutes of your time to complete.

If you choose to participate in this interview, you will be requested to share information about the types of food available within the community and the types of food you sell in this market.

You may stop your participation in this survey at any time with no risk to you. There are no incentives provided for your participation in this survey.

The results of this interview will be used to provide information on community access and availability of different types of food. In addition, the results of this interview will be compiled with additional interview results to better understand how markets in this area work and the types of food available. Your name and identity will be removed from all reports.

Do you have any questions about participating?

- *If yes, answer any questions.*
- *If no, move to the next question.*

Do you agree to participate?

- *If yes, thank them for agreeing to participate and request their signature.*
- *If no, thank them for their time and politely leave.*

Name of vendor

Signature of vendor

Name of Research Team Member

Signature of Research Team Member

Can we audio record the conversation? Y____ N____

If you have any questions about the study, you may contact [NAME OF STUDY MANAGER] at

Annex 3e. Interview and Media Release Form (SAMPLE)

Interview & Media Instructions

Instructions for Staff

When asking a subject for permission to use their image or words in project materials, websites, social media, or videos, please follow the steps below:

1. Working with local project staff, identify appropriate subjects for interviews or photography and let them know what to expect before the interview or photography session.
2. Explain the goals for the project and your role.
3. Explain the need for the interview and images and how they will be used to promote the work of the project through websites, social media, and print materials.
4. Show the subjects the examples of image use below and make sure they understand that their image or interview could be used across a variety of platforms.
5. If the subject feels uncomfortable in any way, thank them for their time and do not take their photograph or proceed with the interview.
6. If the subject agrees to proceed, fill in the necessary information and ask them to sign the form.
7. If children under 18 are to be photographed or interviewed, obtain permission from a guardian and their signature.

Interview & Media Release Form

When Images and Interviews May Be Used to Illustrate a Sensitive Topic

If you intend to use the image or interview to illustrate a sensitive topic, such as HIV and AIDS or the eradication of open defecation, take photos at an angle that will not allow identification of the subject's identity. Subjects may also check the box indicating their real name should not be used. Otherwise, make sure the subject understands their image and/or name could be used in media or publications on this sensitive topic.

Subject's Name: _____

Photographer's Name: _____

Project: _____

Date: _____

Location: _____

I authorize <ORGANIZATION> to use my name, likeness, image, biography, and interview in all manner and media (photo, video, sound recording), for publishing on the <ORGANIZATION> website and the websites of projects managed by <ORGANIZATION>, as well as throughout related social media and print materials. This includes the <PROJECT> website, social media, and print materials. I understand that the use of my name, likeness, image, biography, and interview will help the project promote better nutrition practices and policies for women, children, and families.

Examples of media and print materials where my image may be used:

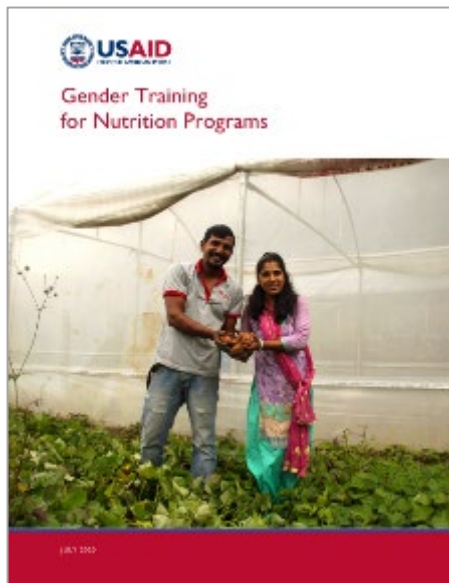
a. Project website:



b. Twitter:



c. Publication:



<ORGANIZATION> and its successors, shall own all right, title, and interest, including the copyright(s), to be used without limitation as <ORGANIZATION> shall determine in its sole discretion. <ORGANIZATION> is not liable for unintentional misrepresentation of information including facts, opinions, and quotes derived from this interview or data-collection process.

<ORGANIZATION> may not use my image beyond websites, media, social media, and print materials related to the project.

<ORGANIZATION> may not use my real name.

Signature: _____

Address: _____

Date: _____

IF SUBJECT IS A CHILD UNDER 18 YEARS OF AGE:

I confirm that I am the legal guardian of the child named above and therefore may grant permission for this subject release on behalf of the child:

Name of Legal Guardian / Relationship to Child / Date / Signature of Guardian

Name of Witness / Organization Affiliation / Date / Witness Signature

Annex 4. Formative Assessment: Social Participatory Mapping

Annex 4a. Focus Group Script for Social Participatory Mapping

After giving an introduction to the study and obtaining consent from participants (Annex 3a), use the following script to conduct focus group discussions on Social Participatory Mapping. The text provides guidance for facilitators, including the overall process and each step of conducting discussions.

Ice Breaker Activity

[INSERT SCRIPT FOR CULTURALLY RELEVANT ICE BREAKER ACTIVITY]

Focus group discussion guide

Good morning/afternoon. Thank you for taking the time to meet with me today.

My name is [INSERT NAME]. I work for [INSERT NAME OF RESEARCH ORGANIZATION]. We are conducting a research study to better understand open-air food markets in different geographic locations in [INSERT LOCATION]. We are interested in learning about the different types of markets and vendors that you purchase your food from.

You are invited to participate in a focus group discussion today about different types of markets and vendors, such as wet markets, mobile vendors, convenience stores, etc. that you have access to in your community. You have been invited to participate in the focus group in your capacity as a consumer who purchases food within your community.

Participation in this discussion is voluntary. If you choose to participate, your responses will not be identified with you in any way when the findings are shared. The discussion is expected to take approximately 1.5 hours to complete. There will be one break during this focus group. During the break, you'll be provided with some refreshments. You can leave at any time.

You may stop your participation in the focus group at any time with no risk to you.

We are conducting this discussion as part of a study in partnership with <ORGANIZATION / PROJECT>. The project aims to provide support for improving diets and nutrition.

The results of this discussion will be used to determine the types of markets and vendors that should be selected for our assessments of the types of foods available within markets in your community, as well as food prices and promotion. The results of this discussion will be compiled with these food environment assessments to better understand market food environments. Your name and identity will be removed from all reports.

The focus group has been approved by the <RELEVANT IRBs>.

If you have any questions, concerns, or suggestions, please do not hesitate to contact me at [INSERT YOUR CONTACT].

Thank you for your consideration for completing this interview. I appreciate your time, knowledge, and expertise.

Do you have any questions about participating?

- If yes, answer any questions.
- If no, move to the next question.

Do you agree to participate in this survey?

____ Yes, I am willing to voluntarily participate in the focus group outlined above. I give permission for you to include my interviews responses in your study and other material (my name will not be included).

Signature: _____

Date: _____

Annex 4b. Data Collection Sheets for Social Participatory Mapping (Parts I and 2)

Instructions:

- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
- Upon completion of the final map, please take a photo of the final result.
- Participants are selected within the respective community (secondary subnational geographic administrative area), are able to access the local food environment, and are willing to participate in the focus group.
- Socio-linguistic factors (i.e., is a translator required to carry out focus group?) and notable cultural norms (including with regard to gender interactions and when different genders cannot speak freely in a mixed-gender group) are accounted for.
- Sample size: Focus group of 5–10 consumer participants per secondary subnational geographic administrative area.

Materials Needed:

1. Colored markers
2. Digital camera
3. Large sheets of paper / flip chart to draw large map
4. Incentives for participants for the focus groups
5. Notebook
6. Waterproof pens / pencils
7. Printed forms
8. Refreshments for the participants for the focus group
9. Audio recorder

Data Collection Sheet Part I.

Print a copy of Part I pages 17–18 for each focus group location.

Part Ia. Background

1. Researcher's name(s):

a) Facilitator(s): _____

b) Note taker(s): _____

c) (c) Translator: _____

d) (d) Other: _____

2. Date (day / month / year): _____

3. Location of focus group: _____

Part Ib. Subnational Geographic Administrative Area Information

Before starting the activity, record the following information as vendors arrive:

1. Primary subnational administrative unit: _____

2. Secondary subnational administrative unit: _____

3. Post code: _____

Notes:

Part 1c. Participant Information

Focus Group Participant	Name (optional, may be helpful during activity)	Participant Gender	Participant Age	Participant Primary Occupation (optional)
Participant 1				
Participant 2				
Participant 3				
Participant 4				
Participant 5				
Participant 6				
Participant 7				
Participant 8				
Participant 9				
Participant 10				

Data Collection Sheet Part 2.

For each secondary subnational administrative unit, print copies for each market/vendor.

Market/vendor type and name (see Reference Tables that follow):

Types of Food Purchased from Market/Vendor ²	Main Reasons for Purchasing Most/Least Food Here		How Often Do People Purchase Food Here	Mode of Transportation and Average Range of Minutes to Access Market/Vendor	Has Market/Vendor <u>Decreased/Increased/Become More Variable</u> in Any of the Following Ways Due to:									
	Most	Least			COVID-19 pandemic?	Stressors								
Grains			Daily	Train	No change		Stressor name/type							
Fruits and vegetables									Bus	No change		No change		
Legumes			4–6 times per week	Shared taxi (van, car, motorbike)	Accessibility		Accessibility							
Sweets									1–3 times per week	Motorbikes/scooters	Availability		Availability	
Eggs														
Dairy products			2–3 times per month	Walking	Food quality		Food quality							
Meat and poultry (fresh)									1 time per month or less	Own motorized vehicle (car, scooter, etc.)	Price		Price	
Meat and poultry (processed)														
Fish and seafood														
Nuts and seeds														
Packaged ultra-processed salty snacks														
Deep-fried foods														
Sweet tea, coffee, cacao														
Fruit juice and fruit-flavored drinks														
Sugar-sweetened beverages														
Fast food														
Oils and fats														
Other:														

Reference Table 1: Market and Vendor Type Descriptions

Market/Vendor Type	Description
Supermarket/large grocery	A large store that sells a reasonable range of fresh fruits and vegetables, meats, and staples needed to cook meals.
Small grocery	A small store that sells a range of fresh fruits and vegetables, meats, and staples needed to cook meals.
Open-air market (daily)	A daily market with a collection of different stalls / vendors selling fresh fruits and vegetables, meat, pulses, staples, and other goods.
Open-air market (weekly)	A weekly (or 1–2 day per week) market with a collection of different stalls / vendors selling fresh fruits and vegetables, meat, pulses, staples, and other goods.
Butcher	A store or cart that primarily sells unprocessed and processed meat products, including chicken, pork, and red meat (these goods comprise approximately 60% of food offerings).
Bread shop	A store that primarily sells savory bread products, including flatbreads, whole grain loaves, and baguettes.
Herb and spice shop/market	A store / market that primarily sells spices for cooking and/or tea, coffee, and cocoa for making at home.
Street food vendor	A street vendor selling any type of fresh, packaged, or prepared foods such as ultra-processed snacks; french fries; or foods prepared from fresh fruits and vegetables, pulses, or tortillas that may include salads, smoothies, etc.
Convenience store	A store that sells a few foods, generally prepackaged convenience foods such as ultra-processed snacks and sweetened beverages, including juice, but not a wide enough selection of foods to make meals. Typically, these stores do not sell fresh fruits, vegetables, or meat.
Bakery for sweets	A store that sells baked sweets such as biscuits, pastries, cakes, and other baked sweet items (this store may also sell bread).
Processed meat	Food stalls/stores primarily selling processed meat products, including sausages, canned meats, bacon, ham, dried meats, smoked meats, and lunch meat (these goods comprise approximately 60% of food offerings).
Fast-food restaurant	Chained fast-food restaurants will have multiple locations (e.g., KFC, Taco Bell, McDonald’s, Pizza Hut).
Other restaurant	Any other type of restaurant that offers table service.

Reference Table 2: Food Group Descriptions

Food Type	Description
Grains	Products from wheat, rice, maize, oats, millet, and other refined or whole grains
Fruits and vegetables	All fruits and vegetables (including roots and tubers such as potatoes, plantains)
Legumes	Dried beans, peas, lentils, etc.
Sweets	Cakes, cookies, donuts, and other sweets primarily made from grains. They may be baked or fried. Also include candy, chocolate, ice cream, etc.
Eggs	Eggs from any type of bird
Dairy products	Milk, yogurt, cheese, etc.
Meat and poultry (fresh)	Unprocessed beef, chicken, pork, goat, etc.
Meat and poultry (processed)	Processed beef, chicken, pork, goat, etc.
Fish and seafood	Dried and fresh fish, crustaceans, etc.
Nuts and seeds	Tree nuts, groundnut, nut butters, etc.
Packaged ultra-processed salty snacks	Commercially packaged chips/crisps, puffs. Does not include meat or nuts or homemade snacks.
Deep-fried foods	Generally savory foods, as any sweet food that is also deep fried is included in sweets (not here, to avoid double counting in “foods to limit” indicator). Deep-fried fish and chicken are counted in two categories.
Sweet tea, coffee, cocoa	Includes sweetened milk-based drinks also (such as bubble tea)
Fruit juice and fruit-flavored drinks	Juice, fruit-flavored drinks, lemonade
Sugar-sweetened beverages	Sugar-sweetened sodas, energy drinks, sports drinks
Fast food	Refers to chains/restaurants where ultra-processed meals are the signature foods marketed and sold
Oils and fats	Edible oils and fats such as butter, lard, seed oils, etc.

Assessment I: Market Mapping

Annex 5. Data Collection Sheet for Community-level Mapping (Phase I)

Instructions:

This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).

Sample size: This assessment will occur in secondary subnational administrative units (i.e., communities).

Community Market Mapping: Market Food Environment Classification Key

Environment Type	Description
Supermarket / large grocery	A large store that sells a reasonable range of fresh fruits and vegetables, meats, and staples needed to cook meals.
Small grocery	A small store or cart that sells a range of fresh fruits and vegetables, meats, and staples needed to cook meals.
Open-air market	Either a daily or weekly market with a collection of different stalls / vendors selling fresh fruits and vegetables, meat, pulses, staples, and other goods.
Bread shop or cart	A store or cart that primarily sells savory bread products, including flatbreads, whole grain loaves, and baguettes.
Butcher	A store or cart that primarily sells unprocessed and processed meat products, including chicken, pork, and red meat (these goods comprise ~ 60% of food offerings).
Herb and spice shop / market / cart	A store/market that primarily sells spices for cooking and/or tea, coffee, and cocoa for making at home.
Healthy street food vendor or cart	Primarily sells fresh or whole foods or foods prepared from fresh fruits and vegetables, pulses, or grains that may include salads and smoothies.
Convenience store / cart with convenience items	A store or cart that sells a few foods, generally prepackaged convenience foods such as ultra-processed snacks and sweetened beverages, including juice, but not a wide enough selection of foods to make meals. Typically, these stores do not sell fresh fruits, vegetables, or meat.
Bakery or cart for sweets	A store or cart that sells baked sweets such as biscuits, pastries, cakes, and other baked sweet items (this store may also sell bread).
Processed meat store or cart	Primarily selling processed meat products, including sausages, canned meats, bacon, ham, dried meats, smoked meats, and lunch meat (these goods comprise ~ 60% of food offerings).
Unhealthy street food vendor or cart	Primarily sells packaged foods such as ultra-processed snacks or prepared foods that may include fried chicken, french fries, instant noodles, or sausages (not an exhaustive list).

PART 1. Background

1. Researcher's name: _____
2. Date (day / month / year): _____

PART 2. Secondary Subnational Administrative Unit Characteristics

Part 2a. Community Background

1. Location (primary subnational administrative unit): _____
2. Location (secondary subnational administrative unit; community level):

3. Post code (if applicable): _____

Part 2b. Facilities and Infrastructure

1. Availability of transportation. Are the following types of transportation services present?
Yes No

5. What is the estimated distance from the center of this secondary subnational unit to each of the following (in kilometers)?

Note: If a railway station, other transport, or tarred roads exist within the boundaries of this secondary subnational unit, put zero kilometers. If it does not exist, write "N/A."

a) Nearest city / major urban center: _____

b) Nearest major highway: _____

c) Nearest long-distance bus station: _____

d) Nearest railway station with passenger trains stopping at least twice per day: _____

6. What is the approximate travel time (in minutes) from the center of this secondary subnational unit to the following (during regular working hours)?

a) Nearest city/major urban center on public transport: _____

b) Nearest city/major urban center in a motorized vehicle: _____

PART 3. Types of Market Food Environments

- I. Do the following types of market food environments exist in this secondary subnational unit? If yes, include them in the checklist and complete all information in the table below in this section.

Note: If there are more than one of the same market food environment types, please list them individually. Print as many of the Food Environment Type sheets needed to complete Part 3. If you are not sure about a market food environment classification, or encounter an unknown, please use the WhatsApp group for guidance.

When in doubt, send a shout out! WhatsApp #: _____

Market Mapping Checklist: This section is to include both formal stores and informal vendors (e.g., bread store and bread cart). Use the example to complete the table below to document the presence of all types of market food environments observed. Use the space in the “Environment Type” column to add ticks to count vendor types, as shown in the example.

a. Quantity of Market Food Environments

Environment Type	Absent	Present	Quantity	Photo
Example: supermarket/large grocery		✓	two	yes
Supermarket/large grocery				
Small grocery				
Open-air market				
Bread shop or cart				
Butcher				
Herb and spice shop/market/cart				
Healthy street food vendor or cart				
Convenience store/cart with convenience items				
Bakery or cart for sweets				
Processed meat store or cart				
Unhealthy street food vendor or cart				

b. Description of Market Food Environments

Print at least one “Food Environment Type” collection sheet for each Food Environment Type that is present, as noted in the Market Mapping Checklist. Print and complete as many sheets as needed.

Food Environment Type: _____	Mkt #: _____
(a) Name of store:	
(b) Coordinates of store: _____° (degrees) _____' (minutes) _____" (seconds)	
(c) Number of days of operation: _____ days per week	
(d) Days of operation (circle all that apply): Monday Tuesday Wednesday Thursday Friday Saturday Sunday	
(e) Hours of operation: _____ hrs.	
(f) Open time: _____ AM/PM (circle one) Close time: _____ AM/PM (circle one)	
(a) Name of store:	
(b) Coordinates of store: _____° (degrees) _____' (minutes) _____" (seconds)	
(c) Number of days of operation: _____ days per week	
(d) Days of operation (circle all that apply): Monday Tuesday Wednesday Thursday Friday Saturday Sunday	
(e) Hours of operation: _____ hrs.	
(f) Open time: _____ AM/PM (circle one) Close time: _____ AM/PM (circle one)	
(a) Name of store:	
(b) Coordinates of store: _____° (degrees) _____' (minutes) _____" (seconds)	
(c) Number of days of operation: _____ days per week	
(d) Days of operation (circle all that apply): Monday Tuesday Wednesday Thursday Friday Saturday Sunday	
(e) Hours of operation: _____ hrs.	
(f) Open time: _____ AM/PM (circle one) Close time: _____ AM/PM (circle one)	
(a) Name of store:	
(b) Coordinates of store: _____° (degrees) _____' (minutes) _____" (seconds)	
(c) Number of days of operation: _____ days per week	
(d) Days of operation (circle all that apply): Monday Tuesday Wednesday Thursday Friday Saturday Sunday	
(e) Hours of operation: _____ hrs.	
(f) Open time: _____ AM/PM (circle one) Close time: _____ AM/PM (circle one)	

Notes:

Annex 6. Data Collection Sheet for Market-level Mapping (Phase 2)

Instructions:

- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
- **Sample size:** This assessment will occur in 12 markets (6 daily, 6 weekly) in each country.

Market Mapping (Market Level): Vendor Food Environment Classification Key

HEALTHY FOOD VENDORS	
Stall/Vendor Type	Description of Vendor/Stall Type
Fresh fruit AND vegetable	Primarily selling both fresh fruits and vegetables
Fresh fruit	Primarily selling fresh fruits (but not vegetables)
Fresh vegetable	Primarily selling fresh vegetables (but not fruits)
Dried whole foods	Primarily selling dried, whole foods such as grains, flour, beans, lentils, and other pulses, nuts, and seeds
Butcher	Primarily selling unprocessed products, including chicken, pork, and red meat
Bread	Primarily sells savory bread products, including flatbreads, whole grain loaves, and baguettes
Fish and seafood	Primarily selling fish and seafood
Dairy and/or egg	Primarily selling eggs, cheese, milk, and yogurt
Herb and spice	Primarily selling spices for cooking and/or tea, coffee, and cocoa for making at home
Healthy mixed food	Primarily selling a range of healthy food items (as listed above) where it is difficult to classify in one of the Healthy Food vendor/stall categories. If this vendor is selected, please describe food types.

Market Mapping (Market Level): Vendor Food Environment Classification Key

VENDORS SELLING FOODS TO LIMIT	
Stall/Vendor Type	Description of Vendor/Stall Type
Processed meat	Primarily selling processed meat products, including sausages, canned meats, bacon, ham, dried meats, smoked meats, and lunch meat
Baked sweets	Primarily selling baked sweets such as biscuits, cakes, and pastries
Sweets	Primarily selling sweets such as candies and chocolates, ice cream, puff puff, chin chin, or sesame brittle
Packaged ultra-processed salty snacks	Primarily selling packaged snacks, including packaged chips such as Pringles, packaged plantain chips, instant soups, and noodles
Deep-fried food	Primarily selling deep-fried food items (fried plantain, fried sweet potato, fried yam, akara, egg roll, samosa or spring rolls, fried fish, or fried meat)
Sugar-sweetened beverages	Primarily selling soft drinks; sports drinks; juices such as Coca-Cola, Fanta, or Sprite; chapman; malt drinks; or energy drinks such as Red Bull
Unhealthy mixed food	Primarily selling a range of unhealthy food items (as listed above) where it is difficult to classify in one of the Unhealthy Food vendor/stall categories. If this vendor is selected, please describe food types.

PART 1. Background

1. Researcher's name: _____
2. Date (day / month / year): _____

PART 2. Market Characteristics

1. Market location:
 - a) Location 1 (primary subnational unit) _____
 - b) Location 2 (secondary subnational unit) _____
 - c) GPS coordinates _____
2. Type of market:

PART 3. Types of Market Vendors

- I. Do the following types of food vendors exist in this market? If yes, complete the table below to document the presence and quantity of vendors by type.

If you are not sure about a market environment classification, or encounter an unknown, please use WhatsApp for guidance.

WhatsApp #: _____

Market Vendor Checklist: This section is to include vendors classified as selling healthy foods or foods to limit. During data collection, mark a line (I) for each stall/vendor observed and then count the lines (I) to determine the quantity. If the stall/vendor type is not available in the market, but the food type is available at another vendor type, record the presence of the respective food group by writing the vendor type where the food is sold.

Example

Stall / Vendor Type	Presence Write "Yes" / "No"	If "Yes," place a line (I) for each <u>vendor / stall</u> observed. (example: I = one, II = 2, ... IIII = 5). If "No," write vendor type where <u>food group</u> is available at another vendor.	Total Quantity Available
Fresh fruit AND vegetable	Yes	III II	7
Fresh fruit	No	Fruit sold at fruit and vegetable vendor. Apples sold at dairy vendor.	0

Mkt #: _____

Healthy Food Vendors			
Stall / Vendor Type	Presence Write "Yes" / "No"	If "Yes," place a line (l) for each <u>vendor</u> / stall observed. (example: l = one, ll = 2, ... ### = 5). If "No," write vendor type where <u>food group</u> is available at another vendor.	Total Quantity Available
Fresh <u>fruit</u> AND <u>vegetable</u>			
Fresh <u>fruit</u>			
Fresh <u>vegetable</u>			
<u>Dried whole foods</u>			
<u>Butcher</u>			
<u>Bread</u>			
<u>Fish and seafood</u>			
<u>Dairy and/or egg</u>			
<u>Herb and spice</u>			
<u>Healthy mixed food</u>			

Notes:

Mkt #: _____

Foods to Limit Vendors			
Stall / Vendor Type	Presence Write "Yes" / "No"	If "Yes," place a line (I) for each vendor / stall observed. (example: I = one, II = 2, ... IIII = 5). If "No," write vendor type where food group is available at another vendor.	Total Quantity Available
Processed meat			
Baked sweets			
Sweets			
Packaged ultra-processed salty snacks			
Deep-fried food			
Sugar-sweetened beverages			
Unhealthy mixed food			

Notes:

Assessment 2: Seasonal Food Availability Calendar

Annex 7. Focus Group Script for Seasonal Food Availability Calendars

After obtaining consent from vendors (Annex 3c), use the following script to conduct focus group discussions on Seasonal Food Availability Calendar. The text provides guidance for facilitators, including the overall process and each step of conducting discussions. The text provided is for data collection on fruits and vegetables and should be adapted for other food groups (starchy staples, legumes, nuts and seeds, and animal source foods).

Introduction to focus groups

We are conducting this discussion as part of a study using adapted and field-validated food environment assessments. The results of this discussion will be used to make a seasonal calendar of availability of fresh fruits, vegetables, and other whole or minimally processed foods (note: this list will be helpful in Assessments 4, 5, and 7). The results will be compiled with additional interview results to report on findings to better understand market food environments. All findings will be shared with <PROJECT>. Your name and identity will be removed from all reports.

The focus group has been approved by the Institutional Review Board (IRB) of <ORGANIZATION> and the National Ethics Review Board of [country of interest].

Our discussion today is about different types of foods, such as fruits, vegetables, beans, grains, animal source foods, fish, and seafood available in the market, including the seasons that they are available.

Your participation in this discussion is voluntary. If you choose to participate, your responses will not be identified with you in any way when the findings are shared. The discussion is expected to take approximately two to three hours to complete. There will be two breaks during this focus group, including one with some refreshments. You can leave at any time.

Ice breaker activity

[INSERT SCRIPT FOR CULTURALLY RELEVANT ICE BREAKER ACTIVITY]

Free-listing activity

Facilitator script: For the first part of this discussion, we will split into two vendor groups. Vendor Group 1 will make a list of fresh fruits and vegetables that are available locally. Vendor Group 2 will make a list of other whole foods, such as starchy staples, legumes, nuts and seeds, animal source foods, and oils and fats that are available locally.

Action: Divide the group into two groups of five vendors each. **One research team member is to join each group** to facilitate the free-listing activity:

- Vendor Group 1: Fresh fruits and vegetables
- Vendor Group 2: Other whole foods

Facilitator script: To begin, we would like to ask you about all of the [TYPE OF FOOD ITEM: example: vegetables] that are available in local markets throughout the year. If multiple parts are consumed of a given [TYPE OF FOOD ITEM], please share what these are. For example, you may consume both the [PART: example: leaf] and [PART: example: fruit] of [FOOD ITEM: pumpkins].

Facilitator action: Write all food items listed by the vendors on the large sheets of paper / flip chart using the organization scheme in Table I below. Use additional sheets of paper as needed. For foods where different parts are consumed, make sure to list these separately. Continue to prompt the vendors about other food items, especially those not currently in season that they may not be thinking about.

Facilitator script: Can you think of any foods [SPECIFY FOOD TYPE: example: vegetables] that are not on this list? Are there [SPECIFY FOOD TYPE: example: vegetables] that are not available now?

Table I. Be sure to create a flip chart each for Vendor Group 1 and Vendor Group 2.

Food Item	Seasonal Availability / Month of Year											
	January	February	March	April	May	June	July	August	September	October	November	December

Action: Following the free-listing activity, give the vendors a break while regrouping with the research team members to make sure you can identify all items by commonly known names and will be able to identify the foods by species name at a later time. For unknown foods, ask the vendors for more details when you regroup them by sharing the unknown items and prompting them with descriptors. Reconvene and address the entire group (i.e., all 10 vendors).

Facilitator script: The group listed a few items that we are not familiar with. Can you please provide us with more descriptions about these foods? Specifically, what does [INSERT NAME PROVIDED] look like? What color and shape is it? What does it smell and taste like? When is it available? Can you draw it for us?

Scoring Activity

Facilitator script: We are now going to start our next activity to discuss the availability of each food listed. You will first be asked to share when each of the foods listed is available. Next, for each of the foods that are available, you will be asked to share if the availability is absent, low, medium, or high.

Action: Reconvene all 10 vendors into one group (unless cultural norms do not permit this, then keep as two separate lists scored by each respective group). Review each item listed and ask for availability during each month of the year. Place a check mark for each month of availability. Next, ask about the level of availability. If the food is not present in the market in a given month, record a “0.” For low availability, record a “1.” For medium availability, record a “2” and for high availability, record a “3.”

- no availability: 0
- low availability: 1
- medium availability: 2
- high availability: 3

Facilitator script: Can you tell me which months of the year [INSERT FOOD ITEM] is available? Next, can you tell me if you perceive the availability as being low, medium, or high, or is the food absent during this time?

Repeat the steps above for all foods listed. The facilitator in each vendor group will lead initial brainstorming and seasonal identification. Take breaks as needed and provide refreshments to the vendors.

Action: Thank the vendors for their time and expertise, remind them how the information will be used, and provide your contact information in case they want to reach out at a later time.

Annex 8. Data Collection Sheet for Seasonal Food Availability Calendars

Instructions:

- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
- Individual-level consent is to be sought from each of the participants before starting data collection as part of the focus group interview (see Annex 3c for a form that can be adapted).
- **Sample size:** 10 vendors per market.
- Vendors are chosen that sell six food groups sourced from a HDB:¹
 - a) Vendor Group 1 includes a total of five vendors that sell fresh **(1) fruits and (2) vegetables**.
 - b) Vendor Group 2 includes a total of five vendors that sell other whole foods from the remaining categories of the Healthy Diet Basket, which are: **(3) starchy staples, (4) animal source foods (5) legumes, nuts, and seeds, and (6) oils and fats**.
- Upon completion of the final seasonal food availability calendar, please take a photo of the final result.

¹ For this assessment, we are using the six food groups representing the Healthy Diet Basket.

Part 1. Background

1. Researcher's name(s): _____
 - a) Facilitator(s): _____
 - b) Note taker(s): _____
 - c) Translator: _____Other: _____

2. Date (day / month / year): _____

3. Location of focus group: _____

Part 2. Market Information

Before starting the activity, record the following information as vendors arrive.

1. Market location:
 - a) Location 1 (primary subnational unit) _____

 - b) Location 2 (secondary subnational unit) _____

Type of market:

Part 3. Vendor Information

Vendor Name (optional)	Vendor Gender	Vendor Age	Vendor Primary Occupation	Type of Vendor
Vendor Group 1: Fruit and Vegetable Vendors				
Vendor 1:				
Vendor 2:				
Vendor 3:				
Vendor 4:				
Vendor 5:				
Vendor Group 2: Other Whole Food Vendors				
Vendor 6:				
Vendor 7:				
Vendor 8:				
Vendor 9:				
Vendor 10:				

Part 4. Final Matrix of Seasonal Food Availability

Document the final matrix of seasonal availability of each species based on the 12 months of the Gregorian calendar derived from the free-listing activity and the scoring activity. Add rows as needed. Attach the final matrix to this data collection sheet. Please take a photograph of the final matrix.

4a. Was photograph taken of final matrix and saved in proper location?

Part 4. Final Matrix of Seasonal Food Availability Collection Sheet. Print as many copies as needed to record focus group information.

Food Group* (listed below)	Food Item (per variety)	Notes (color, shape, taste, size, season, local/imported)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
			Availability: Score each month as follows: No availability (score of 0) Moderate availability (score of 2) Low availability (score of 1) High availability (score of 3)											
EX: Cereals and tubers	Cassava (white flesh variety)	White flesh cassava are the most commonly consumed. They are grown locally April–July but imported the rest of the year.	0	0	1	1	2	3	2	1	0	0	0	0
*Food groups from Healthy Diet Basket: Vendor Group 1 (five vendors) that sell (1) fruits, (2) vegetables (please separate vegetables from dark green leafy vegetables) and Vendor Group 2 (five vendors) that sell (3) starchy staples, (4) animal source foods, (5) legumes, nuts, and seeds, and (6) oils and fats.														

Assessment 3: MFDI

Annex 9. Data Collection Sheet for Market Audit

Instructions:

- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
- **Sample size:** This is occurring in 12 markets (6 daily, 6 weekly).
- The table below should be printed to allow room for writing; recommend three to four food groups per page.

Part I. Background

1. Researcher's name(s): _____
2. Date (day / month / year): _____

Market Information

1. Market location:
 - a) Location 1 (primary subnational unit) _____
 - b) Location 2 (secondary subnational unit) _____
3. Type of market:

Part 2. Market Audit Collection Sheet

**Market Audit Food Groups
with Local Food Examples**

I.	Foods made from grains	Present
----	------------------------	---------

Market Audit Food Groups
with Local Food Examples

6. Other vegetables

Present

Market Audit Food Groups
with Local Food Examples

11. Eggs

Present

Market Audit Food Groups
with Local Food Examples

16. Unprocessed red meat (ruminants) Present

Market Audit Food Groups
with Local Food Examples

21. Packaged ultra-processed salty snacks Present

Market Audit Food Groups
with Local Food Examples

26. Sweet tea/coffee/cocoa

Present

Annex 10. Data Collection Sheet for Vendor Inventory

Instructions:

1. This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
2. **Sample size:** The inventory is to occur at a total of 10 vendors per market.
3. Complete “Food Group Key with Examples” prior to data collection to guide food classification.
4. From the total list of vendors identified during the Market Mapping assessment, the research group is to randomly select the following types of vendors to carry out the Vendor Inventory:
 - a) One vendor that primarily sells **fruits**
 - b) One vendor that primarily sells **vegetables**
 - c) One vendor that primarily sells **whole grains**
 - d) One vendor that sells **legumes**
 - e) One vendor that sells **sweets** (such as baked sweets)
 - f) One vendor that sells **meat**
 - g) One vendor that sells **eggs, cheese, and yogurt**
 - h) One vendor that sells **nuts and seeds**
 - i) One vendor that sells **packaged ultra-processed salty snacks**
 - j) One vendor that sells **deep-fried foods**
5. Use additional sheets for completing the inventory as needed.
6. For each vendor selected, as described in the Research Sampling section in the Instruction Manual, the enumerator is to list all of the food items for each category.

Part 1. Background

1. Researcher’s name(s): _____
2. Date (day/month/year): _____

Part 2. Market Information

1. Market location:
 - a. Location 1 (primary subnational unit) _____
 - b. Location 2 (secondary subnational unit) _____
2. Type of market:

Part 3. Vendor Inventory

Food Group Key with Examples (fill in with local examples prior to data collection as a guide for categorizing during data collection, this will support completion of the data collection sheet shown below).

Food Group	Examples	Local Examples
Foods made from grains	Rice, couscous, bread, spaghetti, macaroni	
Whole grains	Porridge, corn, Ofada rice, etc.	
White roots/tubers	Potato, white sweet potato, yam, taro, etc.	
Legumes	Beans, tofu, tempeh, groundnuts, pigeon peas, dried beans, etc.	
Dark green leafy vegetables	Pumpkin leaves, Bok choy, mustard greens, moringa leaves, wild greens, sweet potato leaves, etc.	
Other vegetables	Tomatoes, eggplant, bitter melon, cucumber, green pepper, cabbage, green beans, etc.	
Vitamin A-rich orange vegetables	Carrots, yellow pumpkin, squash that is orange inside, sweet potatoes that are orange inside, etc.	
Vitamin A-rich fruits	Mango, papaya, golden melon, passion fruit, etc.	
Citrus	Orange, tangerine, pomelo, etc.	

Food Group	Examples	Local Examples
Other fruits	Banana, guava, soursop, watermelon, custard apple, pineapple, avocado, coconut flesh, dates, green mango, green papaya, etc.	
Eggs	Egg, rolled egg, etc.	
Cheese	Cheese curd, dairy cheese, etc.	
Yogurt	Yogurt, liquid yogurt (kefir), etc.	
Fluid or powdered milk	Milk including powdered milk such as Indomilk, etc.	
Nuts and seeds	Groundnuts, melon seeds, ogbono, breadfruit seeds, walnuts, cashews, etc.	
Unprocessed red meats (ruminants)	Cow meat, ram meat, goat meat, any organ from these animals, etc.	
Unprocessed red meats (non-ruminants)	Pig meat, rabbit meat, dog meat	
Poultry	Chicken, chicken gizzard, turkey, duck, pigeon, etc.	
Fish and seafood	Fish, canned fish, crab, prawn, shrimp, etc.	

Food Group	Examples	Local Examples
Processed meats	Sausage, hot dog, dried meat, etc.	
Packaged, ultra-processed salty snacks	Packaged potato chips, packaged plantain chips, etc.	
Instant noodles	Instant noodles such as Indomie, cup noodles, etc.	
Deep-fried foods	French fries, fried banana, fried sweet potato, fried yam, egg roll, samosa/sambosa, fried doughnut, fried pancake (savory or sweet), fried fish, fried meat, etc.	
Sugar-sweetened beverages (soft drinks, sports drinks)	Soft drinks such as Coca-Cola, Fanta, Sprite, or chapman, energy drinks such as Red Bull, etc.	
Fruit juice and fruit drinks	Fruit juice, fruit-flavored drinks, etc.	
Sweet tea, coffee, cocoa	Tea with sugar, coffee with sugar, Dancow, choco drink, Milo, Bournvita, etc.	
Fast food	Chained vendor that serves meat pie, chicken pie, pizza, burgers, etc.	
Baked sweets	Cakes, cookies, sweet biscuits, wafers, chin chin, puff puff, etc.	
Other sweets	Sweets, chocolates, ice cream, sesame brittle, etc.	

Part 3. Vendor Inventory Collection Sheet

Vendor Type		
DQQ Food Category	Present (Yes or No)	Vendor Offerings
Foods made from grains	N	
Whole grains	N	
White roots/tubers	Y	
Legumes	N	
Dark green leafy vegetables		broccoli, spinach
Other vegetables		green papaya
Vitamin A-rich orange vegetables		Carrots
Vitamin A-rich fruits	Y	
Citrus	N	
Other fruits	N	
Eggs	Y	
Cheese	N	
Yogurt	N	
Fluid or powdered milk	N	
Nuts and seeds	N	

Vendor Type		
DQQ Food Category	Present (Yes or No)	Vendor Offerings
Unprocessed red meat (ruminants)	N	
Unprocessed red meat (non-ruminants)	N	
Poultry	N	
Fish and seafood	N	
Processed meats	N	
Packaged ultra-processed salty snacks	N	
Instant noodles	N	
Deep-fried foods	N	
Sugar-sweetened beverages (soft drinks, sports drinks)	N	
Fruit juice and fruit drinks	N	
Sweet tea/coffee/cocoa	N	
Baked sweets	Y	
Other sweets	Y	
Fast food	N	

Assessment 4 and 5: HEI of Food Supply (adapted version)

Annex 11. Data Collection Sheet for Market Audit (Phase I)

Instructions:

- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
- You are to carry out a market audit based on the provided checklist from the perspective of a consumer to evaluate if you could purchase foods to meet the selected types and quantities (in weight) of foods for the HDB for a family of five adults for one week.
- **Sample size:** 12 markets (6 daily, 6 weekly) for Phase I.

Part 1. Background

1. Researcher's name: _____
2. Date (day / month / year): _____

Part 2. Market Information

1. Market location:
 - a) Primary subnational unit _____
 - b) Secondary subnational unit _____
 - c) GPS points _____
1. Type of market:

Part 3. HEI Market Audit Checklist

Mkt #: _____

Food Group* *Example is based on HDB	Quantity Recommended for 5 Adults for 1 week* *Example is based on HDB	Availability Place a check mark where appropriate regarding the availability of the food group and recommended amount.
--	--	--

Starchy staples

Examples: white rice, bread, macaroni, spaghetti, cornmeal, porridge, popcorn, potato, cassava, plantains, white yam, breadfruit, taro

11,270 grams
 or
 11.27 kg

Annex 12. Vendor Interview Script for Assessment 4 Healthy Eating Index (HEI) of Market Food Supply (adapted version) (Phase 2) and Assessment 5 CoHD (adapted version)

Instructions:

- **Note:** This vendor interview script is for both **Assessment 4 HEI** of Market Food Supply (adapted version) and **Assessment 5 CoHD** at Market (adapted version).
- You are to interview market vendors regarding the types, quantities, and costs of foods they have available at a single time point.
- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
- **Sample size:** These interviews are only to occur at daily markets for Phase 2. For each market, one vendor will be interviewed per each of the six **HDB** food groups (36 vendors total):
 - a) Starchy staples
 - b) Vegetables
 - c) Fruits
 - d) Animal source foods
 - e) Legumes, nuts, and seeds
 - f) Oils and fats

Part 1. Background

1. Researcher's name: _____

2. Date (day / month / year): _____

Part 2. Market Information

1. Location:
 - a) (primary subnational administrative unit): _____

 - b) (secondary subnational administrative unit): _____

 - c) GPS coordinates (degrees, minutes, seconds [DMS]): _____

Is this a daily market? Yes

Food Item	Total Quantity Available by Weight (amount with weight unit)	Price Per Unit Currency: (ex: USD)	Weight Per Price Unit	Two Lowest Cost Commonly Purchased
Example: potato	10 kg	\$3 per basket (or bunch, bag, kg)	basket <u>weight</u> (ex: weight of basket in kg) 0.5 kg	
Example: rice	13 kg	\$1 per bag	weight of <u>bag</u> (ex: weight of bag in kg) 0.25 kg	yes
Example: wheat	15 kg	\$10 per basket (or bunch, bag, kg)	basket <u>weight</u> (ex: weight of basket in kg) 0.5 kg	
Example: cassava	10 kg	\$2 per basket (or bunch, bag, kg)	basket <u>weight</u> (ex: weight of basket in kg) 0.5 kg	yes

Part b. Vegetables

Vendor name (optional): _____ Mkt #: _____

Script to Interview Vendor: I am going to ask you about the amount you have of **vegetables**. This includes all the **vegetables** except dried beans. For each type of vegetable I ask about, please estimate the amount you have available by weight.

Examples: carrots, red tatase, pumpkin, squash, tomatoes, cucumber, green pepper, cabbage, green beans, bitter gourd, pumpkin leaves, sweet potato leaves, water leaves, bitter leaves, wild greens

How many kilos do you have of [INSERT FOOD TYPE]?

What is the price of [INSERT FOOD TYPE]?

Repeat for all other **vegetable** items.

Are oils or eggs present at this vendor? Please record quantity/volume/weight and price per unit.

Food Item	Total Quantity Available by Weight (amount with weight unit)	Price Per Unit Currency: _____ (ex: USD)	Weight Per Price Unit	Two Lowest Cost Commonly Purchased
Example: carrots	10 kg	\$3 per bunch (or basket, bag, kg)	bunch weight (ex: weight of basket in kg)	

Add a check mark in the respective column for the TWO lowest cost commonly purchased items.

Part c. Fruits

Vendor name (optional): _____ Mkt #: _____

Script to Interview Vendor: I am going to ask you about the amount you have of **fruit**. For each type of **fruit** I ask about, please estimate the amount you have available by weight.

Examples: mango, papaya, orange, tangerine, grapefruit, banana, guava, watermelon, custard apple, pineapple, coconut flesh, star fruit

How many kilos do you have of [INSERT FOOD TYPE]?

What is the price of [INSERT FOOD TYPE]?

Repeat for all **fruit** items.

****Are oils or eggs present at this vendor? Please record quantity/volume/weight and price per unit.****

Add a check mark in the respective column for the TWO lowest cost commonly purchased items.

Food Item	Total Quantity Available by Weight (amount with weight unit)	Price Per Unit Currency: _____ (ex: USD)	Weight Per Price Unit	Two Lowest Cost Commonly Purchased
Example: apples	11 kg	\$2 per basket (or bunch, bag, kg)	bunch <u>weight</u> (ex: weight of basket in kg)	

Part d. Animal Source Foods Vendor name (optional): _____ Mkt #: _____

Script to Interview Vendor: I am going to ask you about the amount you have of **animal source foods**. For each type of **animal source food** I ask about, please estimate the amount you have available by weight. In this case, we may need to look at the package for weight or estimate by weighing a few items.

Examples: cow meat, ram meat, goat meat, or any organs from these animals, pig meat, rabbit, dog meat, bush meat, chicken, turkey, guinea fowl, quail, duck, pigeon, fish, crab, prawn, shrimp, eggs

How many kilos do you have of [INSERT FOOD TYPE]?

What is the price of [INSERT FOOD TYPE]?

Repeat for all **animal source foods**.

Are oils or eggs present at this vendor? Please record quantity/volume/weight and price per unit.

Food Item	Total Quantity Available by Weight (amount with weight unit)	Price Per Unit Currency: _____ (ex: USD)	Weight Per Price Unit	Two Lowest Cost Commonly Purchased
<i>Example: chicken</i>	<i>10 kg</i>	<i>\$8 per package (or basket, bag, kg)</i>	<i>package weight (ex: weight of basket in kg)</i>	

Add a check mark in the respective column for the TWO lowest cost commonly purchased items.

Part e. Legumes, Nuts, and Seeds Vendor name (optional): _____ Mkt #: _____

Script to Interview Vendor: I am going to ask you about the amount you have of **legumes, nuts, and seeds**. For each type of **legumes, nuts, and seeds** item I ask about, please estimate the amount you have available by weight.

Examples: dry beans, lentils, pine nuts, almonds, Brazil nuts, sunflower seeds, chia seeds

How many grams (*kilos), to be confirmed prior to data collection, do you have of [INSERT FOOD TYPE]?

What is the price of [INSERT FOOD TYPE]?

***Repeat for all **legume, nut, and seed** items.**

Are oils or eggs present at this vendor? Please record quantity/volume/weight and price per unit.

Food Item	Total Quantity Available by Weight (amount with weight unit)	Price Per Unit Currency: _____ (ex: USD)	Weight Per Price Unit	Two Lowest Cost Commonly Purchased
<i>Example: lentils</i>	<i>15 kg</i>	<i>\$5 per package (or basket, bag, kg)</i>	<i>package weight (ex: weight of package in kg)</i>	

Add a check mark in the respective column for the TWO lowest cost commonly purchased items.

Part f. Oils and Fats Vendor name (optional): _____ Mkt#: _____

Script to Interview Vendor: I am going to ask you about the amount you have of **oils and fats**. For each type of **oils and fats** item I ask about, please estimate the amount you have available by weight.

Examples: coconut oil, palm oil

How many liters (*kilos) or grams (*kilos), to be confirmed prior to data collection, do you have of [INSERT FOOD TYPE]?

What is the price of [INSERT FOOD TYPE]?

***Repeat for all **oil and fat** items.**

Are eggs present at this vendor? Please record quantity/volume/weight and price per unit.

Food Item	Total Quantity Available by Weight (amount with weight unit)	Price Per Unit Currency: (ex: USD)	Weight Per Price Unit	Two Lowest Cost Commonly Purchased
Example: palm oil	10 kg	\$20 per bottle (or basket, bag, kg)	bottle weight (ex: weight of bottle in	

Add a check mark in the respective column for the TWO lowest cost commonly purchased items.

Assessment 6: EPOCH (adapted version)

Annex 13. Data collection sheet for Community Observation Walk

This data collection sheet is adapted from sections of the EPOCH (Chow et al. 2010) with modifications made to align to the food group categories and goals for the overall market assessments. The food advertisement categories have been modified to be better aligned to the MFDI and the DQQ. This community observation walk is to proceed by planning a route of a 500-meter distance, starting from a sampled market toward a central, busy location and then back to the starting point.

Instructions:

- **Sample size:** One kilometer (roundtrip) around each of the 12 markets (6 daily, 6 weekly).
- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
- No questions should be left blank/unanswered; write N/A if not applicable.
- Part 1 through Part 3 should be completed to the best of your ability prior to starting the community observation walk.
- Information for Part 1 through Part 3 should be obtained from a combination of sources, including talking to knowledgeable individuals working/living in the area and reviewing telephone books, Internet resources, and other local resources.
- Distances should be assessed as accurately as possible using software platforms such as Google maps (i.e., 500 meters out covering one side of a street and 500 meters back covering the opposite side of the street for a total of 1 kilometer distance).
- The community observation walk should be pre-planned and mapped out before starting the assessment.
- The walk should be carried out in daylight working hours (advertisements may be posted on buses, etc., and thus, you will want to make sure you are capturing this business activity).

PART I. Background

1. Researcher's name: _____
2. Date (day / month / year): _____
3. Was a map of the community obtained? Yes

PART 2. Community Characteristics

1. Location (primary subnational unit): _____
2. Location (secondary subnational unit): _____
3. Post code: _____

PART 3. Community Observation Walk Route

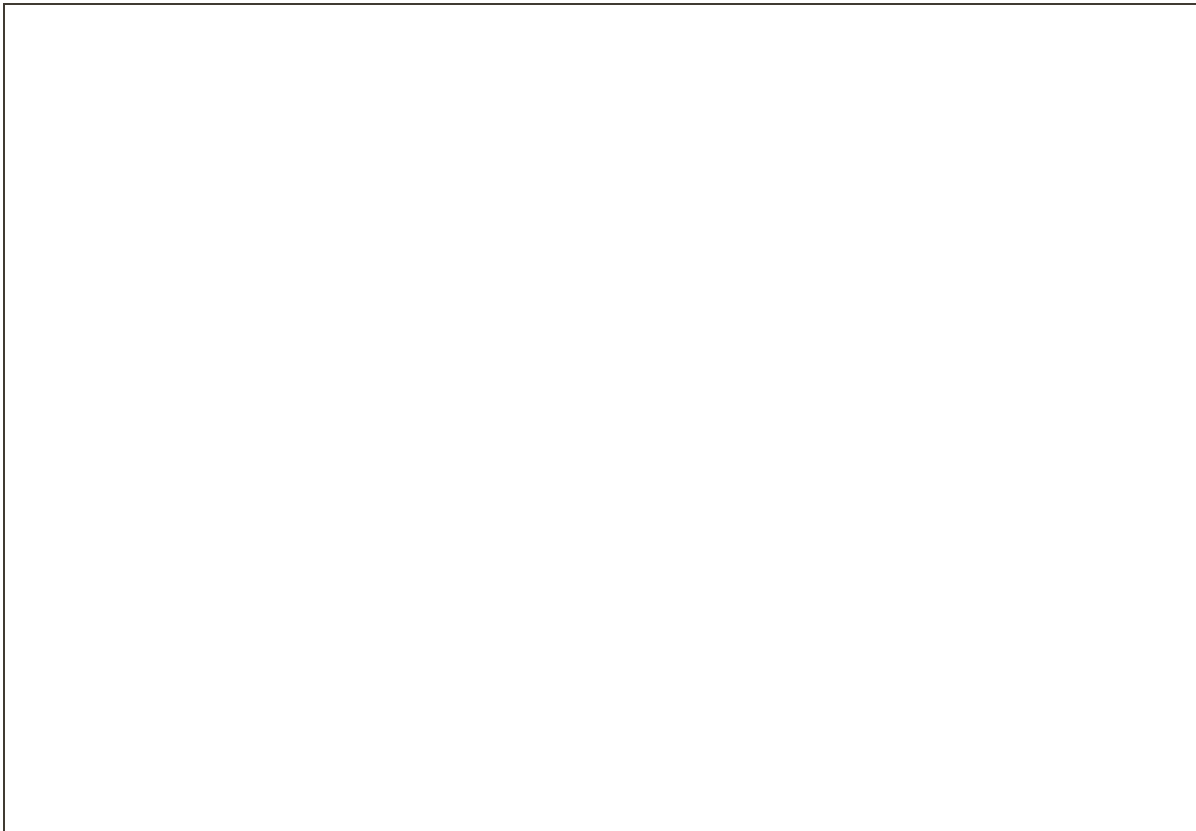
1. Name of Market: _____
2. Start Time: _____
3. Start Point:
 - a) GPS Points: Longitude _____
 - b) Latitude _____
 - c) Street Name: _____
 - d) Cross Street: _____
 - e) Street Number: _____
4. End Time: _____
5. End Point:
 - a) GPS Points: Longitude _____
 - b) Latitude _____

c) Street Name: _____

d) Cross Street: _____

e) Street Number: _____

6. Drawing of the Pre-planned Route

A large, empty rectangular box with a thin black border, intended for drawing the pre-planned route. The box is currently blank.

PART 4. Tally of Advertisements

How many of the following types of food advertisements exist along the community observation walk? Where are these advertisements located?

Tally of Advertisements: Community Walk

Place a check mark for each type of food advertisement observed next to the corresponding type of advertisement, and place a tally next to the location to indicate the number of unique advertisements seen.

If the food group is not present, check “no.”

Packaged ultra-processed salty snacks

Examples: imported and packaged potato chips, cheeseballs, imported tortilla chips, pretzels, crackers, etc.

Present on walk?

TOTAL NUMBER _____

Fruit

Examples: mango, papaya, coconut, pineapple, guava, banana, star fruit, custard apple, etc.

Present on walk?

Non-commercial / government health promotion of foods / diet

Description: Advertisements that promote the benefits of a good diet (e.g., high in vegetables/fruit) or healthy foods (e.g., whole foods) that have been sponsored by a governmental organization or a non-commercial organization

Present on walk?

Annex 14. Data Collection Sheet for Market Observation Walk (adapted version)

This data collection sheet is adapted from sections of the EPOCH (Chow et al. 2010).

Sample size: Occurs in all 12 markets (6 daily, 6 weekly).

Instructions:

- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
- No questions should be left blank/unanswered; write N/A if not applicable.
- Part I should be completed prior to starting the community observation walk.
- The assessment should be carried out in daylight working hours.

PART I. Background

1. Researcher's name: _____

2. Date (day / month / year): _____

PART 2. Market Characteristics

I. Market location:

a) Location 1 (primary subnational unit) _____

b) Location 2 (secondary subnational unit) _____

c) GPS points _____

d) Type of market:

PART 3. Tally of Advertisements

How many of the following types of food advertisements exist along the market observation walk?

Tally of Advertisements: Market Walk

Place a check mark for each type of food advertisement observed next to the corresponding type of advertisement and the location of the advertisement for each food group. If the food group is not present, check “no.”

Packaged ultra-processed salty snacks

Examples: imported and packaged potato chips, cheeseballs, imported tortilla chips, pretzels, crackers, etc.

Present on walk?

Fast food and deep-fried food

Examples: burgers, pizza, fried chicken, fried meatballs, corn fritters, french fries, fried potato chips, savory pancake, fried banana, fried bread, fried fish balls, deep-fried tofu or tempeh, etc.

Present on walk?

PART 4. Signage for Menu Options

Within the market, if there are outdoor food stalls serving meals, document the presence of signs/table information/menus highlighting the following menu options:

- I. Within the market, are there food stalls serving meals? Yes

I. Do signs/table information/menus highlight unhealthy menu options?

Yes

Assessment 7: ProDes (adapted version)

Annex 15. ProDes Tool Criteria of Descriptions of High-quality Attributes of the Selected Market Basket of Fruits and Vegetables

Instructions:

- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned). No questions should be left blank; write N/A if not applicable.
- This template (Annex 15) is to be completed once with feedback from the entire research team, and used for every implementation of the ProDes Tool (Annex 16) in the selected markets.

PART I. Market Basket Components

1. Researcher's name: _____

2. Date (day / month / year): _____

Part Ia. Fruits and Ib. Vegetables

Write down the names of the five types of fruits and five types of vegetables that the research team has decided to include in the market basket for sensory analysis.

Fruit Type 1: _____

Vegetable Type 1: _____

Fruit Type 2: _____

Vegetable Type 2: _____

Fruit Type 3: _____

Vegetable Type 3: _____

Fruit Type 4: _____

Vegetable Type 4: _____

Fruit Type 5: _____

Vegetable Type 5: _____

PART 2. Standardized Criteria for ProDes Sensory Evaluation

Part 2a. Fruits

Fruit Type I: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Fruit Type 2: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Fruit Type 3: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Fruit Type 4: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Fruit Type 5: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Part 2b. Vegetables

Vegetable Type I: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Vegetable Type 2: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Vegetable Type 3: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Vegetable Type 4: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Vegetable Type 5: _____

SENSORY ATTRIBUTE	STANDARDIZED DESCRIPTORS OF DESIRABILITY / QUALITY
<p>Overall desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Visual desirability How visually desirable is this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality
<p>Desirability of size How desirable is the size of this fruit compared to your perception of a high-quality fruit?</p>	Most desirable / high-quality
	Least desirable / low-quality

Annex 16. Data Collection Sheet for ProDes

Instructions:

- This data collection sheet should be filled out neatly in pen or pencil (a dark color so it can be easily seen when scanned).
- No questions should be left blank/unanswered; write N/A if not applicable.
- Part I should be completed by the research team prior to starting the sensory analysis.
- Ideally this sensory analysis should be carried out by the same enumerator for the entire analysis as well as for comparison across locations.
- Take the perspective of a rater based on the research team's Standardized Criteria for ProDes Sensory Evaluation for the perception of high-quality produce (predetermined in Annex 15) and not your personal preferences.

PART I. Background

1. Researcher's name: _____

2. Date (day / month / year): _____

PART 2. Market Information

1. Market location:

a) Location 1 (primary subnational unit) _____

b) Location 2 (secondary subnational unit) _____

c) GPS points _____

2. Type of market:

Part 3a. Fruits Vendor 1:

Sensory Attributes: Scale: 0 (Not Desirable) to 6 (Most Desirable)					
Circle Score On a scale from 0 to 6 based on observational sensory attributes for each fruit type and replicate.	Overall Desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit based on the predetermined criteria?	Visual Desirability How visually desirable is this fruit compared to your perception of a high-quality fruit based on the predetermined criteria?	Desirability of Touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit based on predetermined criteria?	Desirability of Aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit based on the predetermined criteria?	Desirability of Size How desirable is the size of this fruit compared to your perception of a high-quality fruit based on the predetermined criteria?
Fruit Type 1: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Fruit Type 2: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Fruit Type 3: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Fruit Type 4: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Fruit Type 5: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6

Part 3a. Fruits Vendor 2:

Sensory Attributes: Scale: 0 (Not Desirable) to 6 (Most Desirable)					
Circle Score On a scale from 0 to 6 based on observational sensory attributes for each fruit type and replicate.	Overall Desirability Overall, how desirable is this fruit compared to your perception of a high-quality fruit based on the predetermined criteria?	Visual Desirability How visually desirable is this fruit compared to your perception of a high-quality fruit based on the predetermined criteria?	Desirability of Touch How desirable is the touch/firmness of fruit compared to your perception of a high-quality fruit based on predetermined criteria?	Desirability of Aroma How desirable is the aroma of this fruit compared to your perception of a high-quality fruit based on the predetermined criteria?	Desirability of Size How desirable is the size of this fruit compared to your perception of a high-quality fruit based on the predetermined criteria?
Fruit Type 1: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Fruit Type 2: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Fruit Type 3: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Fruit Type 4: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Fruit Type 5: Photo taken for each replicate? Y N					
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6

Part 3a. Vegetables Vendor I:

Sensory Attributes: Scale: 0 (Not Desirable) to 6 (Most Desirable)					
Circle Score On a scale from 0 to 6 based on observational sensory attributes for each vegetable type and replicate.	Overall Desirability Overall, how desirable is this vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?	Visual Desirability How visually desirable is this vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?	Desirability of Touch How desirable is the touch/firmness of vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?	Desirability of Aroma How desirable is the aroma of this vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?	Desirability of Size How desirable is the size of this vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?
Vegetable Type 1:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Vegetable Type 2:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Vegetable Type 3:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Vegetable Type 4:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Vegetable Type 5:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6

Part 3b. Vegetables Vendor 2:

Sensory Attributes: Scale: 0 (Not Desirable) to 6 (Most Desirable)					
Circle Score On a scale from 0 to 6 based on observational sensory attributes for each vegetable type and replicate.	Overall Desirability Overall, how desirable is this vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?	Visual Desirability How visually desirable is this vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?	Desirability of Touch How desirable is the touch/firmness of vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?	Desirability of Aroma How desirable is the aroma of this vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?	Desirability of Size How desirable is the size of this vegetable compared to your perception of a high-quality vegetable based on the predetermined criteria?
Vegetable Type 1:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Vegetable Type 2:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Vegetable Type 3:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Vegetable Type 4:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Vegetable Type 5:			Photo taken for each replicate? Y N		
Replicate 1	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 2	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6
Replicate 3	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6	0 1 2 3 4 5 6

NOTES:



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