IGNITE Nutrition and Food Systems Monitoring, Evaluation, and Learning Framework

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INTRODUCTION:

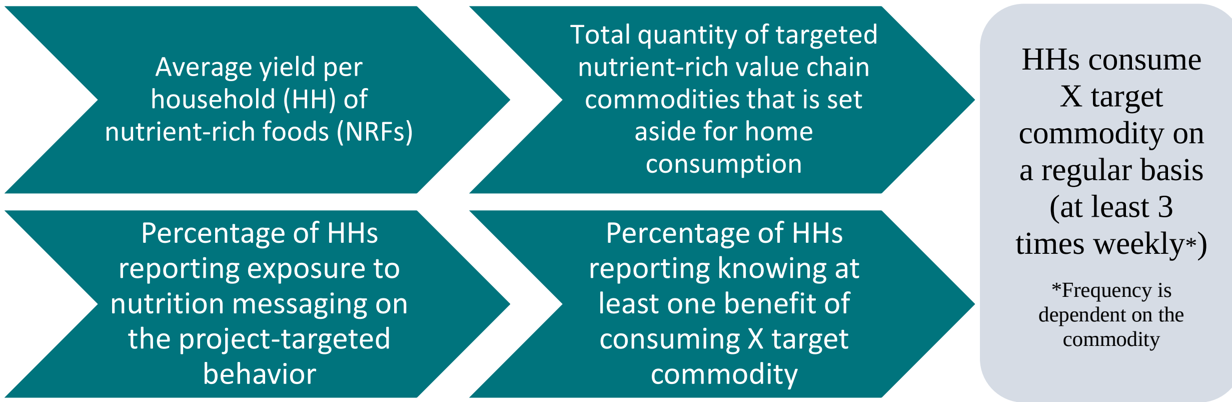
PURPOSE OF THE NUTRITION AND FOOD SYSTEMS MONITORING, EVALUATION, AND LEARNING FRAMEWORK:

In a relatively nascent field, nutrition-sensitive agriculture (NSA) and food systems (FS) interventions have lacked adequate evaluation, largely due to the lack of cohesion between agriculture, food systems, and nutrition research, and the absence of standard indicators. Impacting Gender & Nutrition through Innovative Technical Exchange in Agriculture's (IGNITE) Nutrition and Food Systems (NFS) Monitoring, Evaluation, and Learning (MEL) Framework informs indicator selection in the proposal, program planning, and program implementation stages, and supports ongoing and final evaluations to better document the nutrition outcomes achieved through nutrition-sensitive agriculture and food systems programming. The NFS MEL Framework follows the three agriculture-to-nutrition pathways, specifically agricultural production, agricultural income and women's empowerment plus ways to evaluate activities in the food system subsystems: 1) production and input supply; 2) food storage and distribution; 3) processing and packaging; and 4) food retail and marketing. These pathways and subsystems are discussed in the subsequent sections. Some of the indicators that are discussed below are standard indicators, often required by donors, while others are internally recommended. Work with your IGNITE counterpart for additional guidance to determine the best indicators and learning questions for the project and organization-wide nutrition and food systems learning.

> Note: this manual serves as a starting point to use with projects to determine which types of indicators may be relevant to them. This manual does not include the data collection methods or questionnaires for the indicators or learning questions. Please work with your IGNITE counterpart for additional guidance for data collection. Additional resources for MEL for nutrition and food systems are included at the end of this manual.

MAPPING NUTRITION OUTCOME PATHWAYS

Mapping outcome pathways equips programs to better understand which activities are affecting their indicators and whether intermediate changes are occurring that will contribute to the outcome indicator of interest. Mapping outcome pathways is particularly important where there are indicators that are difficult to improve or slow to change during the life of a project, such as dietary diversity or nutrition status. It is suggested that programs develop their outcome pathway by first selecting the outcome indicator of interest and mapping backwards with the intermediate indicators that would need to be achieved in order to achieve the outcome indicator. Depending on the design requirements of the program, this information may already be available in the program's theory of change, results framework, or log framework. An example nutrition outcome pathway is provided below. Please see Annex 1. for a blank form to use with direction. Work with your IGNITE counterpart for additional guidance on how to develop the nutrition outcome pathways.



CORE NUTRITION-SENSITIVE INDICATORS AND LEARNING QUESTIONS

CORE NUTRITION-SENSITIVE INDICATORS

Selection of nutrition-sensitive indicators will depend entirely on the anticipated results of the project. However, there are a set of standard nutrition-sensitive indicators that are likely relevant and can be considered in each project in order to contribute to organizational learning. The use of standard indicators allows the project team to understand their nutrition impacts in context of other projects that use same indicators (and calculation methods), allowing the organization to compare the relative nutrition impacts across projects regardless of implementation methodology, country context, or food system entry points. It is suggested that a program collects data on at least one of the following outcome indicators.

Table #1: Priority Nutrition-Sensitive Indicators

Consumption and Food Security Indicators:	What it measures:	Level of measurement:
Percentage of households (HHs) with regular consumption* of project target commodity *frequency to be defined by the project dependent on the type of food	Diet quality	Individual or HH(HH) level
Percentage of women achieving minimum dietary diversity – via the Minimum Dietary Diversity for Women (MDDW)	Diet quality	Individual level
Percent change in average Household Dietary Diversity Score (HDDS) of project beneficiaries – via the HDDS	Access to nutrient-rich foods, relevant to use as a baseline and endline to see percent change	HH level
Percentage of women (children or youth) reporting consuming less diverse and/or less quantity food items than the man of the household	Diet quality, specifically HH food allocation for vulnerable populations	Individual level
Percentage of HHs that are food secure - via the HH Food Insecurity Access Scale (HFIAS)	Food security via use of food insecurity coping strategies	HH level

Average Market-level Food Diversity Score	Represents the number of distinct foods or food groups available in a local market at a given point in time – mirrors HDDS	Market level
Number of private sector actors in the zone of influence who provide messaging on the project-targeted nutrition behaviors	Private-sector engagement for nutrition	Market level

CORE NFS LEARNING QUESTIONS:

Researchers and practitioners in the field of nutrition and food systems seek to answer several core questions about how to maximize impact and efficiency. Incorporating learning questions into project work plans and MEL strategies contributes to this body of knowledge and evidence on NFS interventions, helps projects stay more focused throughout the life of the project, and provides the donor with valuable information that otherwise would not be reported. The below questions are broad learning questions that projects can contribute learning to, which will contribute to organizational learning and NFS industry learning. These questions are meant to give you a sense of the areas of learning in the NFS industry but are likely not going to be project-specific learning questions. More specific learning questions are available throughout the four main sections of this MEL framework.

1. What approaches are most effective at improving the local food system in supporting increased consumption of nutrient-rich foods and food security?
2. What are the economics trade-offs between market systems development for income generation vs. income generation and improved local nutrition and food security?
3. What are the relative benefits and trade-offs—in terms of nutrition and health outcomes—in promoting consumption of own production of nutrient-rich foods versus using income from sales of one's own production to purchase nutrient-rich foods? How does this balance with investing in other livelihood development that may lead to longer-term poverty reduction?
4. Do project facilitated changes in women's empowerment translate to changes in HH nutrition and food security? Are project facilitated interventions, that are paired with SBC interventions, more effective at achieving these changes than those that are not?

MENU OF OPTIONS: INDICATORS AND LEARNING QUESTIONS

The previous sections provided the core nutrition-sensitive indicators and learning questions that can be prioritized at an organizational level. However, those high-level indicators/learning question may not be specific enough or applicable for specific projects. The following sections provide indicators and learning questions that may be more applicable to your project, depending on your technical focus areas, and are organized around the following technical areas: 1) nutrition-sensitive agriculture via the agriculture to nutrition pathways, 2) food systems via the food environment framework, and 3) crosscutting considerations, including WASH, social and behavior change (SBC), and private sector engagement – as shown below. Each section contains relevant indicators and learning questions for consideration. Readers can skip to the most relevant sections for them based on their programming. For example, the nutrition-sensitive agriculture section would likely be most relevant for an agriculture development program.

- Nutrition-sensitive outcome indicators
- Nutrition-sensitive agriculture indicators and learning questions
    - Agriculture production for consumption
    - Women's empowerment in agriculture
    - Agriculture production for income
- Food Systems indicators and learning questions
    - External food environment: availability, price, vendor and product properties, marketing and regulation
    - Internal food environment: accessibility, affordability, desirability, convenience
- Crosscutting indicators and learning questions
    - Social and behavior change for nutrition
    - Food safety, sanitation, and hygiene in the household
    - Private sector for nutrition

As a reminder, the following indicators and learning questions are meant to serve as a menu of potential options for projects. Indicators and learning questions can be further explained and adapted to program needs by working with your IGNITE counterpart.

NUTRITION-SENSITIVE OUTCOME INDICATORS:

Outcome indicators are important to understand if a project is affecting diet quality and food security at the household or individual level. These indicators are usually the last indicator in the outcome pathway. Note: these may not be relevant for all projects, as some projects do not have explicit goals to affect household or individual diet quality and/or food security. Outcome indicators are relevant for programs with a specific nutrition component, have nutrition as cross-cutting, and/or programs that may affect HH incomes, HH availability of foods, local markets (e.g., food availability, price, safety, etc.).

Consumption and Food Security Indicators:	What it measures:	Level of measurement:
Percentage of women achieving minimum dietary diversity – via the Minimum Dietary Diversity for Women (MDDW)	Diet quality	Individual level
Percentage of children 6-23 months achieving minimum dietary diversity – via the Minimum Dietary Diversity for children 6-23 month (MDD)	Diet quality	Individual level
Percentage of HHs with regular consumption* of project target commodity *frequency to be defined by the project dependent on the type of food	Diet quality	Individual or HH(HH) level
Percentage of women (children or youthful men and women) reporting consuming less diverse and/or less quantity food items than the man of the household	Diet quality, specifically HH food allocation for vulnerable populations	Individual level

Total quantity of targeted nutrient-rich value chain commodities produced by direct beneficiaries that is set aside for home consumption	HH availability of target nutrient-rich food (NRF) and whether it has increased as a result of the program's activities	HH level
Percent change in average Household Dietary Diversity Score (HDDS) of project beneficiaries – via the HDDS	Access to nutrient-rich foods, relevant to use as a baseline and endline to see percent change	HH level
Percentage of HHs that are food secure - via the HH Food Insecurity Access Scale (HFIAS)	Food security via use of food insecurity coping strategies	HH level

NUTRITION-SENSITIVE AGRICULTURE INDICATORS:

AGRICULTURE PRODUCTION FOR CONSUMPTION:

Food production can improve nutrition outcomes through increased yields of NRFs that are then set aside for home consumption and/or increase the availability of NRFs in the market for other HHs. Projects should aim to understand through process indicators if their activities have led to an increase in production of NRF, and if/how those NRFs are set aside for home consumption or sold in local markets. Subsequently, outcome indicators should be used to determine how consumption of those NRFs has changed for target HHs.

Agriculture Production for Consumption Indicators:	What it measures:	Level of measurement:
Average yield per HH of nutrient-rich foods	Production of NRFs – serves as a comparison indicator to how much is set aside for home consumption	HH level
Total quantity of targeted nutrient-rich value chain commodities produced by direct beneficiaries that is set aside for home consumption	HH availability of target NRF and whether it has increased as a result of the program's activities	HH level
Percentage of HHs with regular consumption* of project target commodity *frequency to be defined by the project dependent on the type of food	Diet quality	HH level
Proportion of staple crop production that is of a biofortified variety	Production of NRFs and adoption of new technologies that can affect HH and market availability of nutritious foods	HH level
Percentage of farmers and others who have applied improved post-harvest handling and storage techniques	HH adoption of practices that can reduce food loss (affecting food security) and food safety	HH level
Number of months stocks from project targeted commodity is consumed by the HH	HH food stores (and therefore food security) and whether they have changed as a result of improved production and/or food storage practices	HH level

AGRICULTURE PRODUCTION FOR CONSUMPTION LEARNING QUESTIONS:

1. Has an increase in production of X food resulted in an increase in consumption of that food?
    a. Why or why not?
    b. Has there been changes in who in the HH is eating the targeted food?
2. Who in the HH decides when and if food is sold vs. set aside for home consumption?
    a. How are women involved in this decision?
3. Have trainings on food processing and preservation or adoption of food processing and preservation technologies resulted in access to X production/food item during the off season? How many months?
    a. Was the production/food item sold or consumed by the household?
    b. If sold, was the production/food item sold for a higher price than offered during high season?

WOMEN'S EMPOWERMENT:

Gender roles and equity influence the effectiveness and competitiveness of agriculture production and markets, as well as resource allocation, decision making, and knowledge sharing within the household. Research shows that increasing women's decision-making capacity and agency around income and food may contribute to improved nutrition status of women and children in the household. Additionally, labor-saving technologies give women more time for activities they choose, which may include income-generating activities and caring for HH members, as well as rest and leisure which are essential for both physical and mental health as well as improved quality of life.

Women's Empowerment Indicators:	What it measures:	Level of measurement:
Percentage of women reporting they provide high levels of input into decision about the use of income	Women's decision-making regarding income, which affects HH nutrition and health behaviors. Types of decisions made should be disaggregated.	Individual level
Percentage of women reporting they provide high levels of input on foods purchased for HH consumption	Women's role in food choices – particularly relevant if the project aims to increase purchasing of NRFs	Individual level
Percentage of women reporting consuming equal diversity and/or quantity food items than the man of the household	HH food allocation and whether women are receiving less food/diversity	Individual level
Percentage of women reporting they have high levels of input into agriculture production decisions	Women's decision-making power in agriculture production	Individual level
Percentage of women reporting they have high levels of input into decisions on how much of /when agriculture products from home production are consumed by the HH	Women's decision-making power use of production for consumption	Individual level

Number of farmers who have applied at least [a project defined minimum number] of improved technologies (female)	Women's adoption of a project targeted technology – particularly important if the technology is time and/or energy saving	Individual level
Number of farmers who self-reported a decrease in time spent on production and/or selling of commodities (female)	Women's time use for agriculture/marketing, which affects leisure and caretaking time	Individual level
Percentage of HHs reporting that the male head of household participates in caretaking responsibilities	Male involvement in HH activities, which affects women's time for leisure and income generation	HH level

WOMEN'S EMPOWERMENT LEARNING QUESTIONS:

1. Which strategies are the most effective in reducing women's energy and time burdens, including but not limited to access to productive technology, access to domestic technology, increased male engagement in domestic and care work? And what are the relative effects on care practices?
2. Has women's empowerment or agency improved? Has women's empowerment improved more significantly in specific areas? Is there any correlation between changes in women's empowerment and changes in decision-making power around food purchase, preparation, or allocation in the household? Are there any negative consequences on women's time, mental burden, or safety from this change?
3. Is there any correlation between positive changes in women's empowerment and an increase in purchasing of nutrient-rich foods?
    a. Is there a greater increase in purchasing of nutrient-rich foods when men receive messaging on joint HH decision-making or HH budgeting?

AGRICULTURE PRODUCTION FOR INCOME:

Increasing HHs' income can increase their overall purchasing power for nutrient-rich foods and other HH expenditures that contribute to the immediate or long-term reduction in malnutrition (e.g., health services, education, etc.). Increased income may be achieved through the production and sale of nutrient-rich foods *or* other less nutritious foods, such as staple or cash crops. Measuring changes in income, particularly income controlled by women, can provide insight into whether HHs are moving along the income to nutrition pathway.

Agriculture Production for Income Indicators:	What it measures:	Level of measurement:
HH Dietary Diversity Score (HDDS)	HH access to food, which can improve if HH income improves	HH level
Food expenditure per x frequency (week, month, as per program needs)	HH affordability – particularly relevant if the project aims to improve HH food purchasing power. Best if the project understands cost of a minimally nutritious diet.	HH level

Food expenditure for nutrient-rich foods per x frequency	HH affordability of a target food – particularly relevant if the project aims to improve HH food purchasing power.	HH level
Percentage of women reporting they provide high levels of input into decision about the use of income	Women's decision-making regarding income, which affects HH nutrition and health behaviors. Types of decisions made should be disaggregated.	Individual level
Percentage of women reporting they provide high levels of input on foods purchased for HH consumption	Women's role in food choices – particularly relevant if the project aims to increase purchasing of NRFs	Individual level

INCOME LEARNING QUESTIONS:

1. Has an increase in income resulted in an increase in purchasing of nutrient-rich foods and, subsequently, dietary diversity? Why or why not? Who in the HH decides what food is purchased? Are women involved in this decision (and if so, what ways)?
2. Has an increase in income resulted in an increase in purchasing/accessing of healthcare services? WASH services/technologies? Children's education? Why or why not? Whose income is used for these purchases (e.g., are these activities paid for separately by income earned by different household members or pooled? If separately, which activities are paid for by which HH member/spouse?)?
3. Which SBC strategies are most effective at translating increased incomes into increased purchasing of nutrient-rich foods? What is the difference in translating increased incomes into increased purchasing of NRFs when SBC is used versus when there is no SBC on the importance of using income for nutrition?
4. Have HH budgeting trainings/messaging resulted in income spreading through the off season? Why or why not? How does the HH spend the income? Is that different by season?

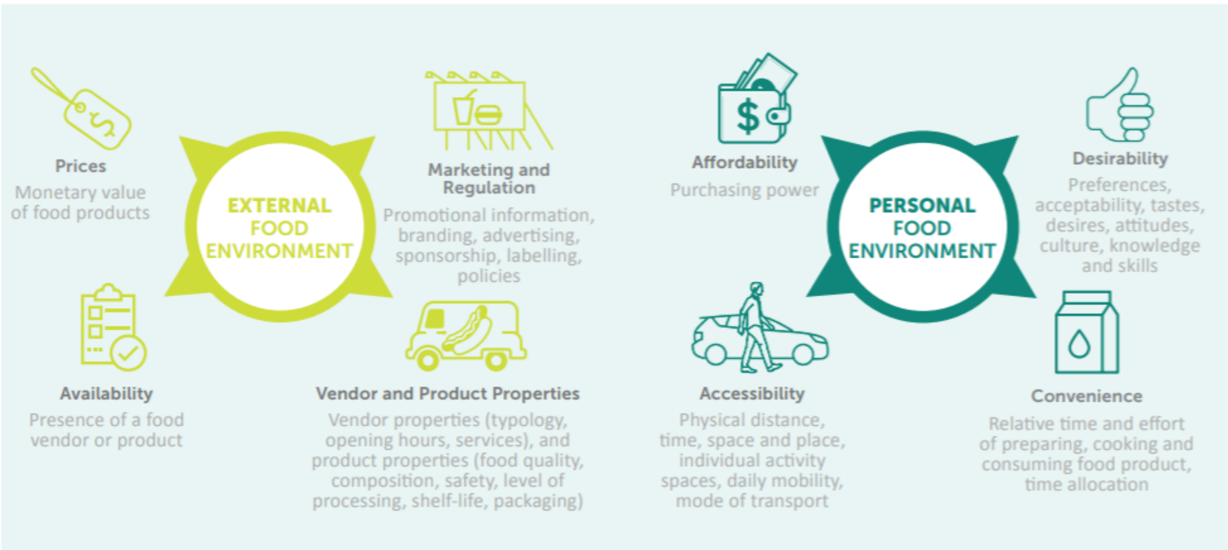
FOOD SYSTEMS INDICATORS:

For the purpose of this manual, the food environment (via the [Agriculture for Nutrition and Health Group])[1] is used as a framework to evaluate how the food system is supporting or deterring the consumption of safe, nutritious foods. The domains listed in the graphic below are ways in which we can evaluate whether our work in agriculture and market systems development is positively affecting the local food system. For example, what effect are the project's production activities having on food availability at the market? What effect are food processing activities having on consumers' desire for a target NRF? The food environment domains can be affected by activities within the food system. Agricultural and market systems development programming can improve the food environment by optimizing the following components of the food system: 1) production and input supply; 2) food storage and distribution; 3) processing and

[1] For more information regarding the Food Environment, please see reference #3 at the end of this manual

packaging; and 4) food retail and marketing. By capturing food environment data, projects can better measure and demonstrate their impact on the local food system.

Figure 1. Food Environment Domains Factors that influence Individual/HH Food Consumption[2]



FOOD SYSTEMS LEARNING QUESTIONS:

1. What domains in the food environment are most critical in influencing the purchasing and/or consumption of nutrient-rich food items?
2. What strategies are most effective at decreasing food prices and increasing the affordability of foods? For nutrient-rich foods? Particularly animal-source foods?
3. Which social and behavior change communication activities are most effective at increasing desirability of targeted nutrient-rich food items and subsequently increasing purchase and consumption? Is this different for men and women, or for other social groups?
4. What are effective strategies for improving nutrient-rich food availability and price in last-mile markets? (e.g., trade from secondary markets, supporting large processing firms to reach last-mile areas, enhancing local production?)
5. What are effective strategies for encouraging private sector to integrate nutrition into their business model?

EXTERNAL FOOD ENVIRONMENT:

AVAILABILITY:

For a HH to consume a food item, it needs to be available locally. Any project that is improving the production of a food item to increase productivity and/or is increasing market linkages should seek to capture availability data to understand the changes in the availability of the targeted food item.

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[2] Turner, C., Kadiyala, S., Aggarwal, A., Coates, J., Drewnowski, A., Hawkes, C., Herforth, A., Kalamatianou, S., Walls, H. (2017). Concepts and methods for food environment research in low and middle income countries. Agriculture, Nutrition and Health Academy Food Environments Working Group (ANH-FEWG). Innovative Methods and Metrics for Agriculture and Nutrition Actions (IMMANA) programme. London, UK.

Availability indicators:	What it measures:	Level of measurement:
Percentage of markets with a Market-level Food Diversity Score of 12 out of 12 food group	Represents the number of distinct foods or food groups available in a local market at a given point in time – mirrors HDDS	Market level
Number of vendors selling the target NRF	Availability of X target NRF in the local marketplace – particularly relevant if the activity has been working on production or trade	Market level

PRICE:

Understanding the price of different food items allows programs to determine the affordability of nutritious diets in the implementation area. When prices of nutrient-rich foods drop, consumers are more likely to purchase them, particularly animal-source foods. Understanding the changes in price of targeted commodities can help explain changes, or lack thereof, in purchasing amongst consumers. Projects can influence on the price of food through improvements in production, local food storage, trade and market connectivity, and the local policy environment and taxes on foods.

Price indicators:	What it measures:	Level of measurement:
Average cost of 100 grams of [X target commodity] in the market	Cost of the project targeted food – particularly relevant if the project has been working on production or trade, which can affect food pricing	Market level
Relative price of 100 grams of X target commodity to 100 grams of X staple food	Cost of the project targeted food against the commonly consumed staple food, which provides insight into how expensive the target food is against foods commonly consumed	Market level
Cost of Diet (COD) of micronutrient nutritious diet (NUT)[3]	Cost of a NUT diet to HHs, which can be used to determine if it is feasible for HHs to consume via income data	Market level
Cost of Diet (COD) of food habits nutritious diet (FHAB)	Cost of a nutritious diet that considers local food habits, which can be used to determine if it is feasible for HHs to consume via income data	Market level

MARKETING AND REGULATION:

[3] For more information regarding the Cost of the Diet, please see reference #4 at the end of this manual

Includes advertising, branding, labeling, and other promotional activities, and food policies or regulations. Understanding marketing practices and regulations helps stakeholders understand whether there is an enabling environment for small, medium, and large processors and vendors to market and sell their foods and how policies or practices can be altered to promote NRFs. These indicators may be relevant to projects working with large and MSMEs to adapt their marketing strategies and/or working with market management committees to influence how a market is ran (e.g., infrastructure, hours, etc.).

Marketing and Regulation indicators:	What it measures:	Level of measurement:
Percentage of market management committees (MMC) that have invested in market infrastructure such as vendor stalls, storage for vendors' commodities, and hygiene and sanitation facilities	Whether MMCs are investing in infrastructure that can affect the food environment, women's participation in market activities, and food safety and sanitation	Market
Percentage of vendors/businesses who use nutrition (in an accurate manner) as part of their marketing strategy	Private sector engagement for nutrition – particularly relevant if the project aims to embed nutrition messaging into private sector service delivery	Market
Percentage of market management committees/local marketplaces that have food safety, sanitation and hygiene standards for vendors and processors in their market	MMCs' commitment to food safety, sanitation, and hygiene at the market, which can affect local burden of disease and subsequently nutrition	Market

Vendor and Product Properties:

Understanding vendor and product properties within the output market will inform aspects of the personal food environment domains, including desirability, convenience, and accessibility. Details to consider include types of vendors, their processing capacity and practices, their marketing strategies, and the physical properties of their location, including the sanitary conditions the products, vendors, and customers are subjected to. These indicators may be relevant to projects working with large and MSMEs in the implementation area to adapt their processing, packaging, and/or food safety, sanitation, and hygiene practices.

Vendor and Product Properties indicators:	What it measures:	Level of measurement:
Percentage of vendors processing/selling X target commodity that have adopted promoted packaging practices to increase the shelf-life and/or food safety of the product	Private sector engagement for improved shelf-life and/or food safety through the adoption of project-targeted behaviors, which can affect local food availability and safety	Market
Percentage of vendors who consider local food purchasing power in their	Whether private sector actors are making their food more affordable for lower income individuals,	Market

packaging (e.g., offer small and cheaper packaging options)	which can increase accessibility to NRFs	
Percentage of vendors who follow good food safety and hygiene practices	Whether behaviors at the market are promoting food safety and consumer health	Market
Percentage of vendors of animal-source foods practicing hygienic processing and storage practices	Adoption of best practices for animal-source food handling, which can affect consumer health	Market

Personal Food Environment:

Affordability of Nutrient-Rich Foods:

Food affordability is dependent on several factors unique to each household and individual. If a targeted food is not perceived as affordable or is not actually affordable given the income of the target population, it is unlikely that the food will be purchased or consumed. Affordability also includes a time element, where some foods may be affordable only in certain seasons. Affordability is measured in terms of the wages of the target population and/or by perceptions of food prices. These indicators may be relevant to projects working in production and thereby potentially increasing the availability and affecting food price in the market, projects increasing HHs' income via livelihood development activities, and/or conducting SBC on foods to change consumers' perceptions of value and price.

Affordability indicators:	What it measures:	Level of measurement:
Food Affordability Index	Relative affordability of foods at the market relative to local wages	Market
Percentage of total food expenditure spent on NRFs	How much money HHs are spending towards NRFs in comparison to staple foods – particularly relevant if the project is messaging on increase purchasing of an NRF	HH level
Consumer perception of the price of (X target commodity)	Whether HHs find the target NRF to be affordable, which can affect their purchasing	Individual or HH level
Willingness to pay for X target commodity	Provides insight into the price and therefore value consumers have for a specific NRF	Individual level
HHs' confidence that they will be able to purchase X target commodity	Whether HHs believe they have the funds to purchase the NRF	Individual or HH level

Accessibility:

Access to food is dependent on factors of the physical location of food access points (markets, distribution centers, farms, etc.) relative to a household's and individual's economic, social, and perceived ability to access those locations. Women often face additional concerns regarding agency and social acceptability of travel away from the home, and safety during travel and at food access point. Improving the accessibility of the targeted food items can increase consumption by minimizing the time cost and social and safety risks to obtain the food. These indicators may be relevant to projects working to improve HH mobility, particularly for women and/or working with large and MSMEs to adapt their distribution strategy and potentially increasing food availability.

Accessibility indicators:	**What it measures:**	**Level of measurement:**
Average time traveled by HHs to the market	Whether food purchased at markets are readily accessible	Individual level
Average time traveled by HHs to purchase (X target commodity)	Whether a target commodity is accessible to the target population – particularly relevant if the project aims to increase accessibility by comparing measurements to the baseline measurement	Individual level
Consumer perception of difficulty in traveling to place where X target commodity is available (differentiated by gender, social group)	Whether a target commodity is perceived as accessible by the target population with regards to infrastructure and gender or social barriers	Individual level
Perception about the safety to travel to purchase X target commodity (differentiated by gender, social group)	Whether women (and other vulnerable groups) feel that they can access the target commodity safely	Individual level

DESIRABILITY:

If a food item is not desirable to consumers, they are not likely to consume it. Desirability includes aspects of individual and community dietary habits, acceptability, tastes, desires, attitudes, culture, knowledge, and preparation skills of a targeted food. Projects may seek to improve desirability through SBC activities to improve consumer perceptions of the targeted commodity and vendors' marketing and presentation of the product. These indicators may be relevant to projects working with large and MSMEs to adapt their marketing strategies to include messaging on food and/or implementing SBC activities to increase desirability of a food, such as courtyard sessions or mother-care-groups, integration into private sector service delivery, etc.

Desirability indicators:	**What it measures:**	**Level of measurement:**
Percentage of respondents reporting they consider nutrition when making food purchasing decisions (differentiated by gender, social group)	Whether nutrition is important for food purchasing – particularly relevant if a project uses nutrition messaging in their activities	Individual level
Percentage of individuals reporting they wish they consumed (X target	Consumer demand for the target NRF, which can inform if perceptions are changing as a	Individual level

commodity) more frequently (differentiated by gender, social group)	result of nutrition messaging activities	
Percentage of individuals reporting that they think those in the community would approve of them consuming (X target commodity) (differentiated by gender, social group)	Local perception of social norms around the target NRF, which can affect whether HHs consume the product	Individual level

Convenience:

Convenience refers to the time and energy required for consumers to prepare and consume a targeted food item relative to other foods in the diet. Understanding convenience may be more appropriate if a new food item is being introduced to an area, if there is intention to facilitate complementary activities on preparation techniques with households, and/or if the project will work with processors to alter the end product to be more convenient.

Convenience indicators:	What it measures:	Level of measurement:
Time required for HHs to prepare (X target commodity)	Ease of preparing and therefore consuming the target NRF – particularly important if the project is introducing a new food or food not often consumed	HH level
Food preparer's perception of time required to prepare (X target commodity) (typically this will be an adult woman in the household, but not necessarily)	Perception about the time it takes to prepare a food, which has implications for female time use and likelihood of regular target commodity consumption.	Individual level
Food preparer's perception of the labor required to prepare (X target commodity) (typically this will be an adult woman in the household, but not necessarily)	Perception about the energy it takes to prepare a food, which has implications for desirability for how frequently the food is prepared for household consumption.	Individual level
Percentage of HHs reporting that men participate in food preparation activities	Men's engagement in food preparation activities can decrease women's time and energy burdens and has implications for gender equality.	HH level

CROSSCUTTING

Nutrition Social and Behavior Change:

Social and behavior change (SBC) activities can be integrated into agriculture and market systems development activities to increase household's adoption of nutrition-related behaviors, such as setting aside produced food for home consumption or purchasing of NRFs at the market. SBC approaches vary by project, but largely rely on private sector actors to disseminate messages encouraging improved nutrition behaviors or enabling environments conducive to improved behaviors, or through project-implemented SBC activities that aim to improve knowledge, shift social norms, and ease adoption of improved behaviors. These activities may be standalone, such as mass media campaigns, or be integrated into existing activities, such as producer trainings or mother-care-group sessions. Note: assessing the impact of SBC activities will require the project to first assess if a household or target individual was exposed to the SBC activities and, if so, which ones and at what intensity.

Nutrition Social and Behavior Change Indicators:	What it measures:	Level of measurement:
Percentage of HHs reporting exposure to messaging on the project-targeted nutrition behavior {disaggregated by HH members}	Whether the project's SBC activities have reached HHs via self-report	HH level
Percentage of HHs in the zone of influence who were reached by SBC communication on project-targeted nutrition behavior {disaggregated by HH members}	The proportion of HHs reached by the project's SBC activities as per the project's records (e.g., # of HHs who received SMS)	HH level
Number of private sector actors in the zone of influence who provide messaging on the project-targeted nutrition behavior	Private-sector engagement for nutrition – particularly relevant if the project aims to disseminate nutrition messages via private sector actors' activities	Market level
Percentage of farmers who report exposure to the project-targeted nutrition behavior promotion activities from private sector actors (disaggregated by gender, social group)	Whether private sector engagement for SBC dissemination is reaching HHs and whether that outreach is equitable	Individual or HH level
Percentage of respondents reporting knowing at least one benefit of consuming X target commodity	Whether the project's SBC activities have resulted in knowledge development by HHs regarding the target NRF	Individual level
Percentage of respondents reporting perceived negative consequences associated with consuming X target commodity	Whether the project's SBC activities have dispelled perceived negative consequences associated with an NRF, which can affect consumption	Individual level
Percentage of respondents reporting they wish they consumed (X target commodity) more frequently	Consumer demand for the target NRF, which can inform if perceptions are changing as a result of nutrition messaging activities	Individual level

Food Safety, Sanitation, and Hygiene in the household:

Inadequate sanitation and hygiene behaviors, including poor food safety practices, negatively affect nutrition and health status, particularly for young children. Programs that work in agricultural or livestock production, food processing/preservation, or promote the consumption of foods—particularly animal-source foods—can incorporate improvements in food safety, sanitation, and hygiene behaviors to improve food safety, sanitation, and hygiene and overall population health.

Food Safety, Sanitation, and Hygiene at the HH Indicators:	**What it measures:**	**Level of measurement:**
Percentage of HHs reporting daily clearing of animal feces from the HH area/yard	Whether HHs are maintaining a clean HH area, which can affect human health	HH level
Percentage of farmers using an enclosure, shed, or pen to keep their livestock in a designated area	Adoption of a specific livestock rearing practice that can affect human health	HH level
Percentage of HHs washing their hands with soap at critical times* *critical times will be dependent on the project focus	Whether HHs are adopting targeted hygiene behaviors – particularly relevant if the project has included messaging targeting hygiene	HH level
Percentage of HHs preserving x target commodity in a safe manner* *safe manner will be dependent on the target commodity	Whether HHs are adopting behaviors that can improve food safety of a target commodity	HH level
Percentage of HHs that think it is important to implement sanitary and hygienic livestock rearing practices	Whether HHs understand and value using sanitation and hygiene behaviors, which will affect their adoption of the behavior	HH level

Private Sector Engagement (PSE):

Projects often work through private sector actors[4] in agriculture and market systems development programming to affect change (e.g., increase farmer adoption of a new input). Private sector (PS) actors can be mobilized to embed nutrition-sensitive interventions in their business models and indirectly affect nutrition. These activities may include disseminating nutrition and hygiene messages to households, diversifying their end market consumer base, and developing more nutritious or more shelf stable food products. The objective of these activities is to improve the availability, price, accessibility, convenience, and desirability of a targeted nutritious food item or adoption of improved nutrition behaviors. PSE indicators are spread throughout this manual but are aggregated here, along with a few standalone indicators not presented elsewhere.

Private Sector Engagement Indicators:	**What it measures:**	**Level of measurement:**

[4] Private sector actors include micro, small, medium, and large enterprises, such as food processors or input suppliers. For the purpose of this manual, farmers are not included in the definition of private sector actors.

Number of private sector actors incorporating nutrition into their business model (e.g., nutrition messaging, processing a nutritious food, etc.)	Private-sector engagement for nutrition – particularly relevant if the project aims to disseminate nutrition messages via private sector actors' activities	Individual / enterprise level
Change in revenue by private sector actors who have integrated nutrition-sensitive strategies (nutrition messaging, different packaging options, diversified product offerings)	Whether PS has seen a change in revenue, which can be used as a business case for promoting adoption of nutrition-sensitive strategies by other PS actors. Note, if selected, this indicator needs to be coupled with the following indicator about perception of value, as well as interviews to understand what the actor adapted during the indicated timeframe.	Individual / enterprise level
Private-sector perception of the value of incorporating nutrition in service delivery and marketing strategies	Perceived value of nutrition integration to the private sector, which can inform the persuasive approach the project must adopt to promote PS nutrition integration	Individual / enterprise level
Retail sales of X targeted commodity and/or processed food or beverage item in the zone of influence	Sales of target commodity – particularly relevant as a baseline comparison indicator to ascertain the impact of nutrition integration on market size and consumer demand.	Market
Number of vendors selling (X target commodity)	Food availability – particularly relevant if the project aims to increase availability and competition for a target commodity	Market
Percentage of vendors processing/selling X target commodity that have adopted promoted packaging practices to increase the shelf-life and/or food safety of the product	Private sector engagement for improved shelf-life and/or food safety through the adoption of project-targeted behaviors, which can affect local food availability and safety	Market
Percentage of vendors who consider local food purchasing power in their packaging	Whether private sector actors are making their food more affordable for lower income individuals, which can	Market

(e.g., offer small and cheaper packaging options)	increase accessibility to NRFs for more beneficiaries	
Percentage of vendors who follow good food safety and hygiene practices	Whether behaviors at the market are promoting food safety and consumer health	Market
Percentage of vendors of animal-source foods practicing hygienic processing and storage practices	Adoption of best practices for animal-source food handling, which can affect consumer health	Market
Percentage of vendors who use nutrition (in an accurate manner) as part of their marketing strategy	Private sector engagement for nutrition – particularly relevant if the project aims to embed nutrition messaging into private sector service delivery	Market

ANNEX 1: OUTCOME PATHWAY TEMPLATE

The following outcome pathway template can be used by projects to work back from their outcome of interest to potential intermediate indicators that need to be monitored and evaluated. The number of intermediate indicators will depend on the activities the project is implementing and how close or far removed they are from the outcome indicator. Add or remove rows and columns as you see fit.

Intermediate indicator #1	Intermediate indicator #2	Intermediate indicator #3	Outcome Indicator

ADDITIONAL RESOURCES AND REFERENCES:

1. Herforth, A., Nicolo, G., Veilerette, B., Dufour, C. (2016). Compendium of indicators for nutrition-sensitive agriculture. Food and Agriculture Organization. Available via: http://www.fao.org/3/a-i6275e.pdf
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3. Turner, C., Kadiyala, S., Aggarwal, A., Coates, J., Drewnowski, A., Hawkes, C., Herforth, A., Kalamatianou, S., Walls, H. (2017). Concepts and methods for food environment research in low and middle income countries. Agriculture, Nutrition and Health Academy Food Environments Working Group (ANH-FEWG). Innovative Methods and Metrics for Agriculture and Nutrition Actions (IMMANA) programme. London, UK. Available via: https://anh-academy.org/sites/default/files/FEWG_TechnicalBrief_low.pdf
4. Cost of Nutritious Diets Consortium, 2018. Indicators and tools for the cost of nutritious diets. Boston, MA: Tufts University (13 pages, 31 May 2018). Available via: http://ianda.nutrition.tufts.edu/sites/default/files/resources/CostOfNutritiousDiets-CollaborativeBrief_31May2018_Final.pdf