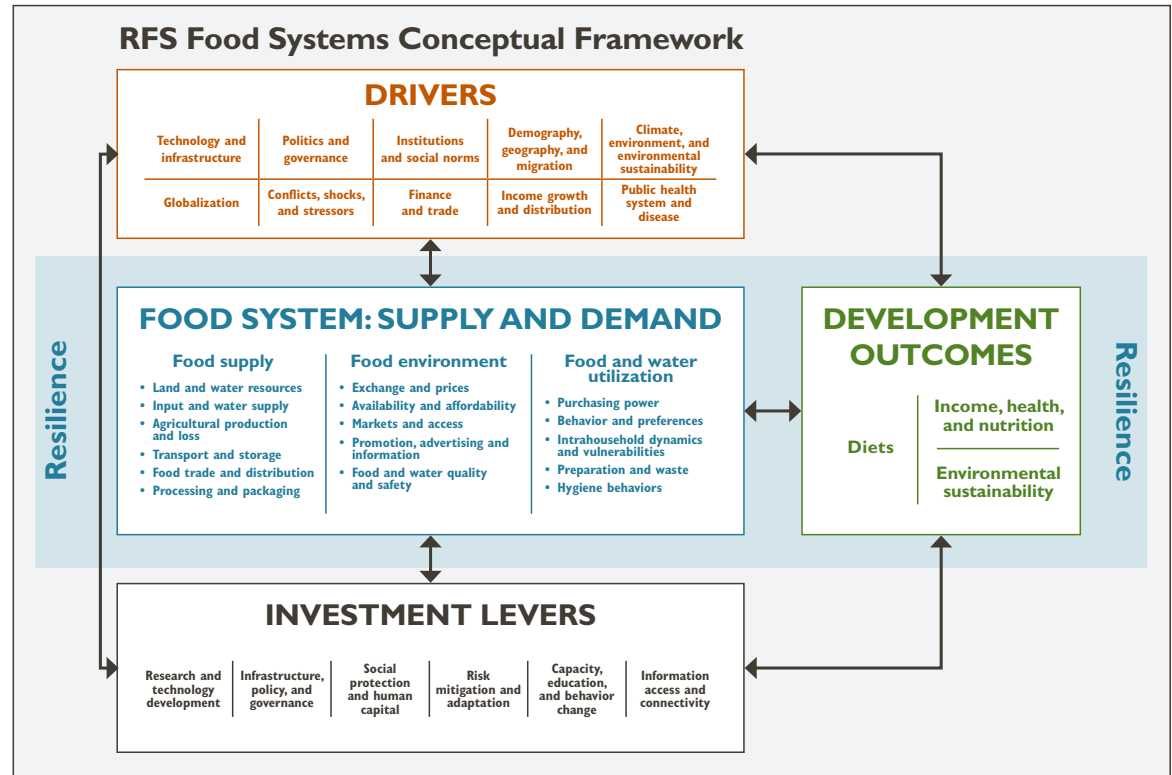


Illustrative Behaviors to Improve Nutrition-Sensitive Agriculture

Background

Food systems are the backbone of global diets. The Bureau for Resilience and Food Security (RFS) Food Systems [Conceptual Framework](#) (figure 1) illustrates how key elements of the United States Agency for International Development's (USAID) work come together as part of the food system. Food systems actors are implicit throughout this framework. For example, a range of actors contribute to supply and demand and have a joint impact on the food system. Across the food system, the behavior of these actors matters for diets and nutrition, whether they are producers, retailers, or consumers. As policymakers and program implementers work to strengthen food systems to deliver affordable, safe, and nutritious diets for all, it is more important than ever to understand the important role that food systems actors can play in sustaining improved diets and nutrition.

Figure 1: Bureau for Resilience and Food Security (RFS) Food Systems Conceptual Framework



Purpose

This document provides an illustrative list of evidence-based nutrition-sensitive behaviors to identify nutrition-sensitive behaviors across the food system and food system actors to support an activity’s nutrition outcome. While this list can be used as a standalone resource, it also serves as a companion piece to USAID’s [Designing Effective Nutrition-Sensitive Agriculture Activities Guide](#). This illustrative list can help spark ideas and discussion among activity designers and implementers. It is intended to help activity designers and implementers design more effective approaches to increase the uptake and adoption of behaviors to improve nutrition outcomes using a food systems lens.

Use

- This list is intended to be used to brainstorm ideas and jump-start conversations around nutrition-sensitive behaviors for your activity.
- The list is illustrative and not context-specific. Select the behaviors relevant for your activity and adapt for your unique context.
- Some examples of how to use this list [can be found here](#).

When Is a Behavior Nutrition-Sensitive?

When choosing behaviors, this formula may be helpful:



To ensure that a behavior is nutrition-sensitive, consider questions such as when, where, and for what purpose. For example, this behavior—*Retailers store food for sale*—is not inherently nutrition-sensitive, but it can contribute to improving diets when it is applied to the safe storage of nutritious foods for sale in local markets. These specific applications are critical to ensuring that a behavior is nutrition-sensitive.

Each illustrative behavior in this list is followed by an example of what is needed to ensure that the behavior is nutrition-sensitive. This type of locally contextualized application is necessary for the behavior to be nutrition-sensitive. This list is aligned with the Conceptual Framework’s central Food System: Supply and Demand box. For each category of Food Supply Behaviors, Food Environment Behaviors, and Food and Water Utilization Behaviors, the list provides an illustrative behavior and explains what is needed to ensure that the behavior is nutrition-sensitive. The icons represent the evidence base for each behavior when nutrition-sensitive, indicating the behavior’s impact on quality diets: to increase the affordability, safety, local availability, or nutritional quality of diets.

Key



Affordability



Safety



Nutritional
Quality of Diets



Local
Availability

Food Supply Behaviors

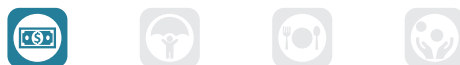
FARMERS ADD AMENDMENTS TO RESTORE SOIL NUTRIENTS.

This behavior is nutrition-sensitive when farmers increase yields of fruits and vegetables grown for home consumption or local markets.¹



COMMUNITIES USE SELECTIVE TIMBER HARVESTING IN FORESTS.

This behavior is nutrition-sensitive when communities maintain wild edible fruits and vegetables for home consumption or local markets.²



COMMUNITIES PROTECT FISH PONDS.

This behavior is nutrition-sensitive when communities harvest aquatic foods for home consumption or local markets.³



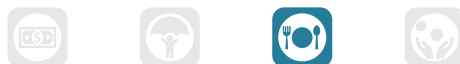
FARMERS USE HYGIENIC AND NUTRITIOUS ANIMAL FEED.

This behavior is nutrition-sensitive when farmers improve the quality and safety of animal-sourced foods by using plant based-feed free from mycotoxins when raising animals for home consumption or local markets.^{4,5,6}



RETAILERS SELL IMPROVED AGRICULTURAL INPUTS.

This behavior is nutrition-sensitive when retailers sell quality seeds and fertilizer to farmers who produce fruits and vegetables or raise animals for home consumption or local markets.⁷



FARMERS INTRODUCE LEGUMES AND OTHER GREEN MANURE CROPS AS INTERCROPS AND COVER CROPS.

This behavior is nutrition-sensitive when farmers increase nutrient quality of fruits and vegetables for home consumption or local markets.^{8,9,10}



FARMERS PRODUCE NUTRITIOUS FOODS SUCH AS LEAFY GREEN VEGETABLES AND FISH THROUGH AN INTEGRATED POND MANAGEMENT SYSTEM.

This behavior is nutrition-sensitive when farmers increase yield of fish and vegetables grown for home consumption or local markets.^{11,12}



FARMERS USE RECOMMENDED POST-HARVEST HANDLING METHODS FOR SORTING, DRYING, AND STORING PRODUCE.

This behavior is nutrition-sensitive when farmers reduce post-harvest loss and improve the safety of fruits and vegetables for home consumption or local markets.^{13,14}



TRANSPORTERS USE COOLING SYSTEMS TO MOVE PERISHABLE FOOD.

This behavior is nutrition-sensitive when transporters ensure the safety of nutritious foods such as milk or meat for sale in local markets.¹⁵



RETAILERS PROPERLY STORE FOOD FOR SALE.

This behavior is nutrition-sensitive when retailers protect the safety, reduce micronutrient loss, and reduce waste by storing perishable food in local markets, such as fruits and vegetables.¹⁶



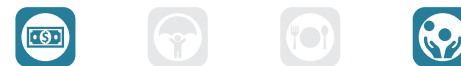
POLICY MAKERS INVEST IN IMPROVED FOOD STORAGE FACILITIES.

This behavior is nutrition-sensitive when protecting the safety and reducing waste of perishable food in local markets.¹⁷



SERVICE PROVIDERS LINK PRODUCERS WITH TRADERS AND MARKETS.

This behavior is nutrition-sensitive when traders increase linkages between farmers who grow and raise nutritious foods and local markets.¹⁸



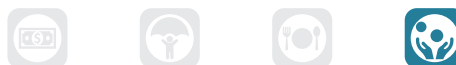
POLICYMAKERS INCENTIVIZE TRADE FOR SMALL- AND MEDIUM-SIZED PRODUCERS.

This behavior is nutrition-sensitive when producers trade and improve the supply of safe and nutritious foods from food surplus to deficit areas.¹⁹



CONSUMER GROUPS ADVOCATE FOR MORE EQUITABLE DISTRIBUTION OF FOODS TO LOCAL MARKETS.

This behavior is nutrition-sensitive when consumer groups specifically advocate for equitable distribution of safe, nutritious foods to diversify local markets.²⁰



FOOD PROCESSORS DEVELOP PRODUCTS APPROPRIATE FOR COMPLEMENTARY FEEDING.

This behavior is nutrition-sensitive when food processors develop safe, nutritious products appropriate for complementary feeding and/or for populations especially vulnerable to malnutrition.^{21,22}



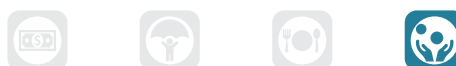
FOOD PROCESSORS FORTIFY STAPLE FOOD WITH MICRONUTRIENTS.

This behavior is nutrition-sensitive when food processors fortify staple foods with micronutrients for sale in local markets.^{23,24}



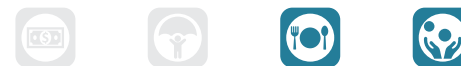
FOOD PROCESSORS PACKAGE FOOD IN CONVENIENT SIZES.

This behavior is nutrition-sensitive when food processors supply local markets with packaged safe, nutritious foods for increased affordability.²⁵



POLICYMAKERS SUBSIDIZE INFRASTRUCTURE FOR FOOD PROCESSORS.

This behavior is nutrition-sensitive when infrastructure subsidies are targeted for food processors that supply safe, nutritious foods to local markets.^{26,27}



Food Environment Behaviors

POLICYMAKERS REMOVE TAXES ON FOODS FROM LOCAL MARKETS.

This behavior is nutrition-sensitive when policymakers remove taxes on safe, nutritious foods to lower their prices for consumers.²⁸



POLICYMAKERS TAX ULTRA-PROCESSED FOOD ITEMS.

This behavior is nutrition-sensitive when taxes are levied on ultra-processed foods for sale in local markets.²⁹



FARMER GROUPS PROVIDE TIMELY INFORMATION ON PRODUCTION, STOCK LEVELS, AND PRICE FORECASTING TO POLICYMAKERS AND TRADERS.

This behavior is nutrition-sensitive when policy makers monitor prices of nutritious foods in local markets.³⁰



RETAILERS SELL MICRONUTRIENT-RICH CONSUMABLE PRODUCTS.

This behavior is nutrition-sensitive when retailers sell products in local markets such as iodized salt, fortified flour, and micronutrient powders.³¹



RETAILERS SELL FOOD HOUSE-TO-HOUSE.

This behavior is nutrition-sensitive when retailers sell safe, nutritious foods house-to-house, especially to homes with women and children, where consumers are unable to access markets and nutritious foods or face mobility constraints.³²



POLICYMAKERS SUBSIDIZE FOODS FOR COMMUNITIES VULNERABLE TO MALNUTRITION.

This behavior is nutrition-sensitive when policymakers target subsidizing safe, nutritious foods for communities vulnerable to malnutrition.³³



POLICYMAKERS DIALOGUE WITH FARMERS AND TRADERS TO IDENTIFY OPPORTUNITIES TO OPEN NEW MARKETS.

This behavior is nutrition-sensitive when opportunities to sell affordable, safe and nutritious foods in new markets are identified.³⁴



POLICYMAKERS INVEST IN ROAD DEVELOPMENT TO INCREASE ACCESS TO LOCAL MARKETS.

This behavior is nutrition-sensitive when local markets sell affordable, safe and nutritious foods.³⁵



POLICYMAKERS SUPPORT INFORMAL FOOD TRADING TO INCREASE AVAILABLE FOODS.

This behavior is nutrition-sensitive when the foods are safe and nutritious and/or when informal trading empowers women.^{36,37,38}



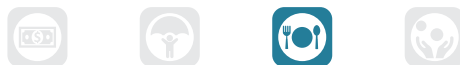
RETAILERS PROMOTE SALES OF FOOD PRODUCTS IN LOCAL MARKETS.

This behavior is nutrition-sensitive when promotions target safe, nutritious foods for women and children.³⁹



FOOD PROCESSORS INVEST IN ADVERTISING PRODUCTS.

This behavior is nutrition-sensitive when products are safe and nutritious and target local communities and markets.⁴⁰



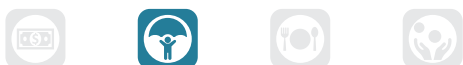
POLICYMAKERS REGULATE LABELING AND ADVERTISING OF ULTRA- AND HIGHLY-PROCESSED FOODS.

This behavior is nutrition-sensitive when policymakers regulate labeling and advertising of ultra-processed foods nation-wide or in areas such as school environments.⁴¹



RETAILERS SAFELY HANDLE FOOD FOR SALE.

This behavior is nutrition-sensitive when retailers safely handle, nutritious foods in local markets.⁴²



FOOD PROCESSORS USE TECHNOLOGIES TO MITIGATE FOOD SAFETY HAZARDS.

This behavior is nutrition-sensitive when food processors use technologies to improve the safety of nutritious foods, such as pasteurization of milk, sold in local markets.⁴³



POLICYMAKERS USE TRACING TO ENFORCE FOOD SAFETY STANDARDS TO REDUCE THE INCIDENCE OF FOODBORNE DISEASE.

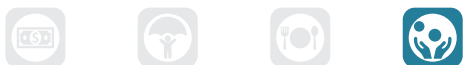
This behavior is nutrition-sensitive when, for example, policymakers enforce food safety standards among smallholder dairy chains to reduce foodborne illnesses.⁴⁴



Food and Water Utilization Behaviors

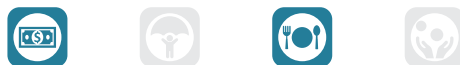
POLICYMAKERS INCENTIVIZE WOMEN ENTREPRENEURS.

This behavior is nutrition-sensitive when women entrepreneurs sell safe, nutritious foods in local markets.⁴⁵



DEVELOPMENT PARTNERS OFFER FOOD VOUCHERS TO HOUSEHOLDS VULNERABLE TO MALNUTRITION.

This behavior is nutrition-sensitive when vouchers target households with women and children and are redeemable for safe, nutritious foods.⁴⁶



CONSUMERS PURCHASE FOODS.

This behavior is nutrition-sensitive when consumers purchase safe, nutritious foods.⁴⁷



POLICYMAKERS PROVIDE TARGETED TRANSFERS TO COMPENSATE CONSUMERS FOR INCREASING FOOD PRICES.

This behavior is nutrition-sensitive when policymakers provide transfers to purchase safe, nutritious foods such as fresh fruits and vegetables.⁴⁸



HOUSEHOLDS SET ASIDE A PORTION OF FOOD PRODUCED FOR HOME CONSUMPTION BEFORE SELLING.

This behavior is nutrition-sensitive when families set aside nutritious food for consumption, such as fish or vegetables.⁴⁹



POLICYMAKERS CERTIFY FOOD SAFETY IN ALL MARKETS.

This behavior is nutrition-sensitive when policymakers improve the safety of nutritious foods by certifying formal and informal markets, including fresh food markets.⁵⁰



HOUSEHOLDS EQUITABLY DISTRIBUTE FOOD.

This behavior is nutrition-sensitive when households distribute safe, nutritious foods to women of reproductive age and young children.⁵¹



MEN AND WOMEN MAKE DECISIONS ABOUT HOUSEHOLD ASSETS JOINTLY.

This behavior is nutrition-sensitive when men and women make joint decisions on household assets such as what nutritious food to grow or when to buy and sell safe, nutritious food.⁵²



ELDERS CHALLENGE SOCIAL NORMS THAT RESTRICT FOODS ACCEPTABLE TO EAT.

This behavior is nutrition-sensitive when elders challenge social norms that restrict women of reproductive age and young children from eating safe, nutritious foods.⁵³



RETAILERS SELL LESS AESTHETIC FOODS AT DISCOUNTS.

This behavior is nutrition-sensitive when retailers sell nutritious foods, such as fruits and vegetables, in markets and restaurants.⁵⁴



HOUSEHOLDS PROPERLY STORE FOOD.

This behavior is nutrition-sensitive when households store safe, nutritious food at home.⁵⁵



HOUSEHOLDS USE FOOD PREPARATION METHODS THAT ENHANCE THE BIOAVAILABILITY OF MICRONUTRIENTS IN PLANTS.

This behavior is nutrition-sensitive when caregivers prepare safe, nutritious foods using methods such as thermal processing and fermentation that enhance the bioavailability of plant micronutrients.⁵⁶



CAREGIVERS PREPARE AND FEED FOOD.

This behavior is nutrition-sensitive when caregivers prepare safe, nutritious foods hygienically.⁵⁷



RETAILERS WASH HANDS WITH SOAP BEFORE AND AFTER FOOD HANDLING.

This behavior is nutrition-sensitive when retailers improve the safety of food sold or served when working in local markets and restaurants.⁵⁸



POLICYMAKERS REGULATE MARKET HYGIENE STANDARDS.

This behavior is nutrition-sensitive when policymakers improve the safety of food sold through regulations in formal and informal markets, including fresh food markets.⁵⁹



Photo Credit: Mohamamd Mahfujul Haque, Feed the Future Innovation Lab for Fish Machine Learning Project, Department of Aquaculture, Bangladesh Agricultural University, Mymensingh

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