Behaviour change communication based on Ethiopian dietary guidelines in agrifood systems initiatives

An implementation guide

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RAISE-FS
Resilient Agriculture for Inclusive and Sustainable Ethiopian Food Systems



Behaviour change communication based on Ethiopian dietary guidelines in agrifood systems initiatives

An implementation guide

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This guide helps frontline workers and nutrition partners implement the Ethiopian Food-Based Dietary Guidelines through community-centred behaviour change communication. Drawing on RAISE-FS experiences, it offers a flexible six-month approach using discussions, demonstrations, household commitments, and follow-up, adapted to local food access, motivation, social support, and gender relations.

Key words: Social and Behaviour Change Communication (SBCC), Ethiopian Food-Based Dietary Guidelines (EFBDG), RAISE-FS, Ethiopia

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Preface

Resilient Agriculture for Inclusive and Sustainable Ethiopian Food Systems (RAISE-FS) is a four-year programme funded by the Embassy of the Kingdom of the Netherlands in Addis Ababa and hosted by Stichting Wageningen Research Ethiopia. The programme was established to support transformation of Ethiopia's food system through demand-driven, interdisciplinary research and practical action that contributes to the country's development priorities.

This implementer's guide was developed to support the practical application of the Ethiopian Food-Based Dietary Guidelines through community-centred social and behaviour change communication. It brings together the experience, learning, and tools generated through the RAISE-FS project to help frontline implementers translate national nutrition recommendations into realistic actions for households and communities.

The guide is intended for health extension workers, development agents, supervisors, community volunteers, nutrition professionals, and other partners who support nutrition and food-system activities. It presents a six-month implementation approach that combines one priority behaviour at a time with participatory discussion, practical demonstration, household commitments, follow-up, and reflection. The approach recognises that dietary change depends not only on knowledge, but also on access, motivation, social support, gender relations, and the local food environment. For this reason, the guide encourages implementers to adapt examples and activities to local realities, work through existing health and agricultural extension structures, and engage community members as active participants in identifying feasible solutions.

We hope this guide will serve as a practical resource for planning, facilitating, monitoring, and learning from nutrition behaviour change activities. It is intended to be used flexibly and strengthened through continued feedback, implementation experience, and collaboration among communities, government offices, research institutions, and development partners.

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List of abbreviations and acronyms

ARC	Agricultural Research Centre
ARI	Agricultural Research Institute
CASCAPE	Capacity Building for Scaling up of Evidence-based Best Practices in Agricultural Production in Ethiopia
DAs	Development Agents
EFBDG	Ethiopian Food Based Dietary Guidelines
FAO	Food and Agriculture Organization of the United Nations
FGD	Focus Group Discussion
HEWs	Health Extension Workers
KAP	Knowledge, Attitude and Practice
NGOs	Non-governmental Organizations
RAISE-FS	Resilient Agriculture for Inclusive and Sustainable Ethiopian Food Systems
RFSA	Rapid Food System Appraisal
SAA	Social Analysis and Action
SBCC	Social and Behaviour Change Communication
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

1 Introduction

This Social and Behaviour Change Communication (SBCC) implementer's guide is designed to support Health Extension Workers (HEWs), Development Agents (DAs), supervisors, community volunteers, nutrition experts and other frontline implementers in planning, delivering, monitoring, and learning from behaviour change activities that promote the Ethiopian Food-Based Dietary Guidelines (EFBDG).

The manuals is grounded in evidence and practical lessons from the Resilient Agriculture for Inclusive and Sustainable Ethiopian Food Systems (RAISE-FS) project pilot implementation research that generated evidence around EFBDG key messages across five *woredas* in the Amhara, Oromia, Central Ethiopia, and Tigray regions of Ethiopia. The approach was developed in response to challenges and leverage points identified through the baseline assessment and Rapid Food System Appraisal (RFSA). Key leverage points included home gardening, poultry farming, and gender-transformative approaches (Social Analysis Action (SAA) which provided practical entry points for supporting healthier dietary practices at household and community level.

A key feature of the approach was the use of one focused EFBDG message per month and a coupled approach. Rather than providing multiple messages at once, each month focused on one priority behaviour and provided participants with sufficient time to discuss, practice, reflect on, and apply the message at household level. This approach was supported through community discussions, practical demonstrations, locally relevant stories and examples, household commitments, and follow-up by facilitators and influential persons.

The implementation process included a review of existing SBCC materials and alignment of EFBDG key messages with the local *woreda* context (Glaser et al., 2024; Hailu et al., 2025). Context-specific communication materials, including posters and other visual aids, were developed and translated into local languages (Amharic, Afaan Oromo, and Tigrigna) to address community needs and improve the relevance and accessibility of the messages. Discussions were held with relevant implementing organizations and local stakeholders to ensure a shared understanding of the approach and to support coordinated implementation. Capacity-building activities were also provided to strengthen implementers' knowledge and skills, with particular emphasis on concept, adult learning principles, participatory community facilitation, and the delivery of nutrition-related behaviour change activities. The approach was community-centred, participatory, and iterative, with practical demonstrations and locally relevant activities used to translate dietary messages into feasible household actions.

Implementation involved multiple institutions and community structures. Health extension workers and DAs facilitated community discussions and supported household follow-up, while DAs also provided agricultural extension support, including support for vegetable and poultry production. *Woreda* Agriculture and Health Offices provided coordination, oversight, and technical guidance. Agricultural research centres and universities, especially the nutrition experts, provided technical backstopping, follow-up, and supervisory support. Community leaders supported mobilisation and strengthened local ownership. Regional, national, and international experts contributed to the initial concept, material development, training, follow-up, and capacity strengthening of facilitators.

The approach used regular follow-up and reflection to support implementation. Monthly report and household commitments were tracked, facilitators conducted household visits, and experiences, challenges, and lessons were documented during monthly reflection sessions. Kebeleand woredalevel development agents and researchers also conducted site visits to provide follow-up support and observe implementation.

Monitoring and learning were integrated into the implementation process. At the end of the intervention, key informant interviews (KIIs), focus group discussions (FGDs), and household observations were conducted to explore changes in participants' capacity, motivation, and opportunities to adopt recommended behaviours. The findings and implementation experiences provided evidence and practical learning on how community-centred SBCC can be delivered through existing health and agricultural extension systems and also the implementation of EFDBG in the local context. Observable changes were reported in participants' capacity,

motivation, and nutrition-related behaviours during the implementation process. The findings and outputs from the implementation were finalized and submitted to scientific journals for publication. The manuscripts are currently awaiting the outcome of the review process.

This guide translates these implementation experiences into practical guidance for frontline implementers. It focuses on what to do, how to facilitate it, and how to learn from the experience, rather than providing theoretical information alone. It includes practical stories, discussion questions, demonstrations, monthly assignments, women empowerment, and simple approaches for documenting experiences and challenges. The aim is to help implementers deliver one focused EFBDG message at a time, encourage practical household action, and adapt facilitation to the local context.

1.1 Purpose of this manual

The overall purpose is to strengthen the capacity of implementers to design and deliver high-quality, evidence-based SBCC activities that contribute to improved diet quality, increased dietary diversity, and better nutrition outcomes in line with EFBDG.

Specifically, this manual will help you to:

- Understand the key messages of the EFBDG and why they matter.
- Plan and deliver practical behaviour change activities at household, group, and community levels.
- Address common barriers and use local motivators to encourage lasting change.
- Monitor progress, learn from implementation, and improve activities over time.

1.2 Scope of the manual

This manual focuses on the practical application of SBCC around the EFBDG. It covers:

- Core nutrition and behaviour change concepts
- Monthly implementation steps linked to priority EFBDG messages
- Facilitation and counselling skills
- Tools for planning, delivery, monitoring, and evaluation

It is not a technical nutrition textbook. Instead, it is a field-oriented guideline that translates the national EFBDG into actionable messages and activities that frontline workers can use in their daily work.

1.3 How to use this manual

Use this guide as a facilitator's working resource, not as a script to read aloud. Keep the monthly dietary message intact while adapting the language, foods, illustrations and practical activity to your community.

- Read the introductory sections first to understand the overall approach. Use the monthly modules as your main working guide during implementation and refer to EFBDG whenever you prepare for sessions or household visits.
- Apply the monitoring tools regularly and discuss findings.
- Adapt the activities and examples to your local context while keeping the core EFBDG messages intact.

When to use the guide	What to do	What to leave with
Before training	Read Sections 1–3 for purpose, context and essential concepts. Review Section 4 for the six-month approach and facilitation steps.	A shared understanding of the implementer's role.
Before each monthly session	Read the relevant module. Select its activity, gather local materials and review the previous household assignment.	A prepared activity linked to one priority message.
During the session	Invite experiences, facilitate discussion and demonstration, check understanding and agree a feasible household action.	A clear commitment that participants can explain.
Between sessions	Follow up on commitments, document barriers and discuss learning with other implementers.	Practical adjustments for the next session.

2 RAISE-FS context and nutrition objectives

The Resilient Agriculture for Inclusive and Sustainable Ethiopian Food Systems program (RAISE-FS) (Figure 1) is a four-year initiative aimed at transforming the food system in Ethiopia. By adopting a food systems approach, RAISE-FS seeks to analyse the drivers and activities within the food system and to address key leverage points. The program envisions resilient, inclusive, and sustainable food systems that can withstand shocks, support marginalised groups, and operate in an environmentally friendly manner. RAISE-FS focuses on three types of food systems in Ethiopia, with a focus on carrying out research and generating evidence on how rural households can improve their livelihoods within these systems. The program has five specific outcomes related to social and economic empowerment, sustainable production, enhanced value chains, increased availability of safe and nutritious foods, and an improved enabling environment.

The manual will specifically address the outcomes related to the increased utilization of safe and nutrient-dense foods, specifically zooming in on ambitions to increase the year-round consumption of nutrient-dense foods.

RAISE-FS works in four regions of Ethiopia: Amhara, Oromia, and the previous SNNPR and Tigray. It targets about 27 *woredas* and addresses the key systemic food systems bottlenecks in a demand-driven manner. Each region has a specific focus based on the current food system, agro-ecology and interests of the partners (Table 2)

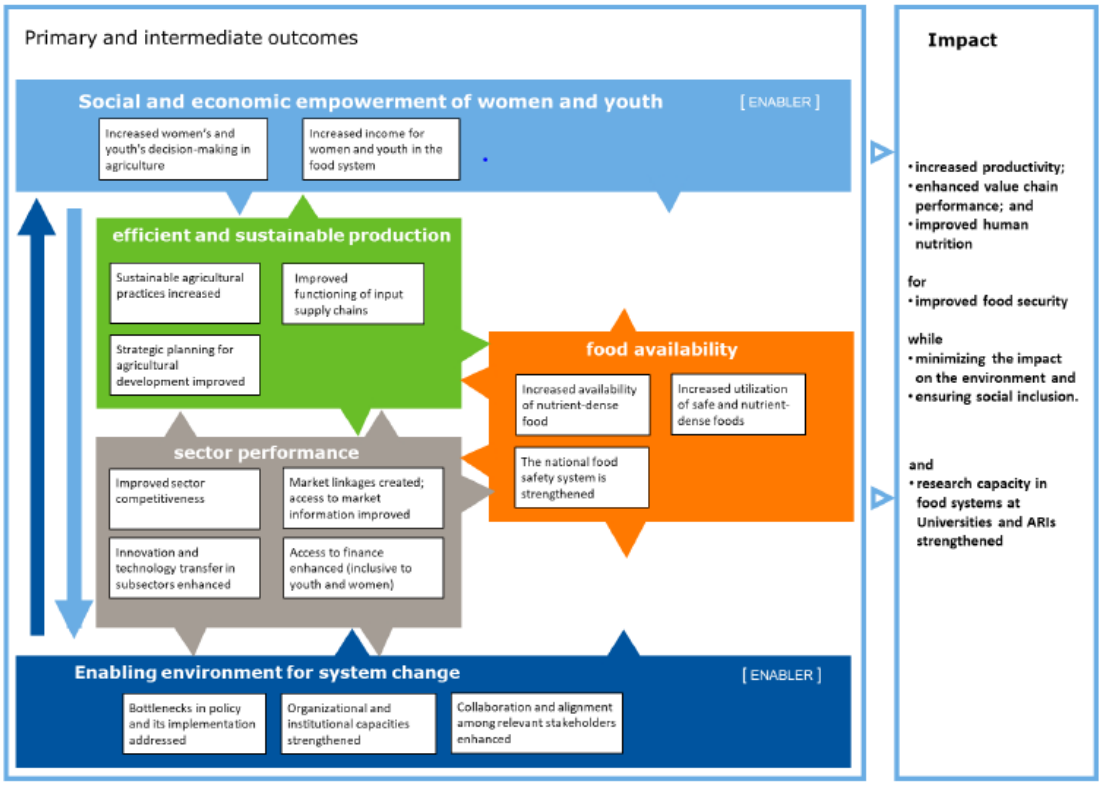


Figure 1 RAISE-FS project outcome areas in food systems perspectives.

Table 1 RAISE-FS Project commodities by region and food system typologies

Food System	Amhara	Oromia	South
Commercial orientation	Oilseeds	Spices & herbs	Poultry
High potential, moderately food secure	Potato, teff	Potato, poultry	Potato, pulses
Low potential, food insecure	Food security crops	Food security crops	Food security crops

In addition to the specific crops described above, the project all supports households, especially those in moderate food insecure and food insecure areas, with home gardening initiatives.

3 Intended users and essential nutrition concepts

3.1 Who should use this manual?

This document aims to summarize the approach that RAISE-FS was taken to support improved dietary intake in the RAISE-FS project. Building on the Ethiopian food-based dietary guidelines, which were approved by the Ministry of Health, Agriculture, and Education, it aims to provide a practical, and conceptually well grouped approach to implementing the Ethiopian Food-based dietary guidelines in the RAISE-FS project. We hope that the approach can also be rolled out by others who are interested in using the Ethiopian Food Based dietary guidelines in their own projects. Accordingly, the manual aims to support wider use of the approach by providing practical guidance that can be adapted to different project contexts and user needs, including those of facilitators, trainers, health extension workers, and nutrition professionals.

3.2 Essential nutrition concepts for implementers

Nutrition is about the intake of food and how it affects the body's growth, function, and repair. It is influenced by biological, social, and economic factors.

Diet refers to the food and drinks a person regularly consumes. It's what you eat on a daily basis.

Dietary patterns are the typical combinations and amounts of different foods people eat over time. It's about the overall way you eat, not just individual meals or foods.

Food is what we eat to nourish our bodies. It includes everything we consume, such as fruits, vegetables, meat, grains, and beverages.

Food groups are categories that help organize different types of foods based on their nutritional similarities. Examples of food groups include fruits, vegetables, proteins (like meat and beans), grains, and dairy. These groups help people make balanced and healthy food choices.

Nutrients are components in foods that our body uses to survive and grow. There are two types of nutrients: macronutrients and micronutrients. Macronutrients provide the bulk energy to our body’s metabolic system needs to function, while micronutrients provide the necessary cofactors for metabolism to be carried out. Both types of nutrients can be acquired from diet. Macronutrients include carbohydrates, proteins, fats, and water whereas micronutrients include vitamins and minerals.

Carbohydrates provide the body with energy to keep alive, build and repair tissues, stay warm, and move and work. Carbohydrates are the most abundant and economic source of food energy in the human diet. The major food sources of carbohydrates (Figure 2) in the Ethiopian diet include:



Figure 2 Sources of carbohydrates

Proteins provide the body with essential amino acids that have a range of functions: growth and development, repair or replacement of tissues, production of metabolic and digestive enzymes, and production of some hormones. Major food sources of protein in the Ethiopian diet (Figure 3) include:

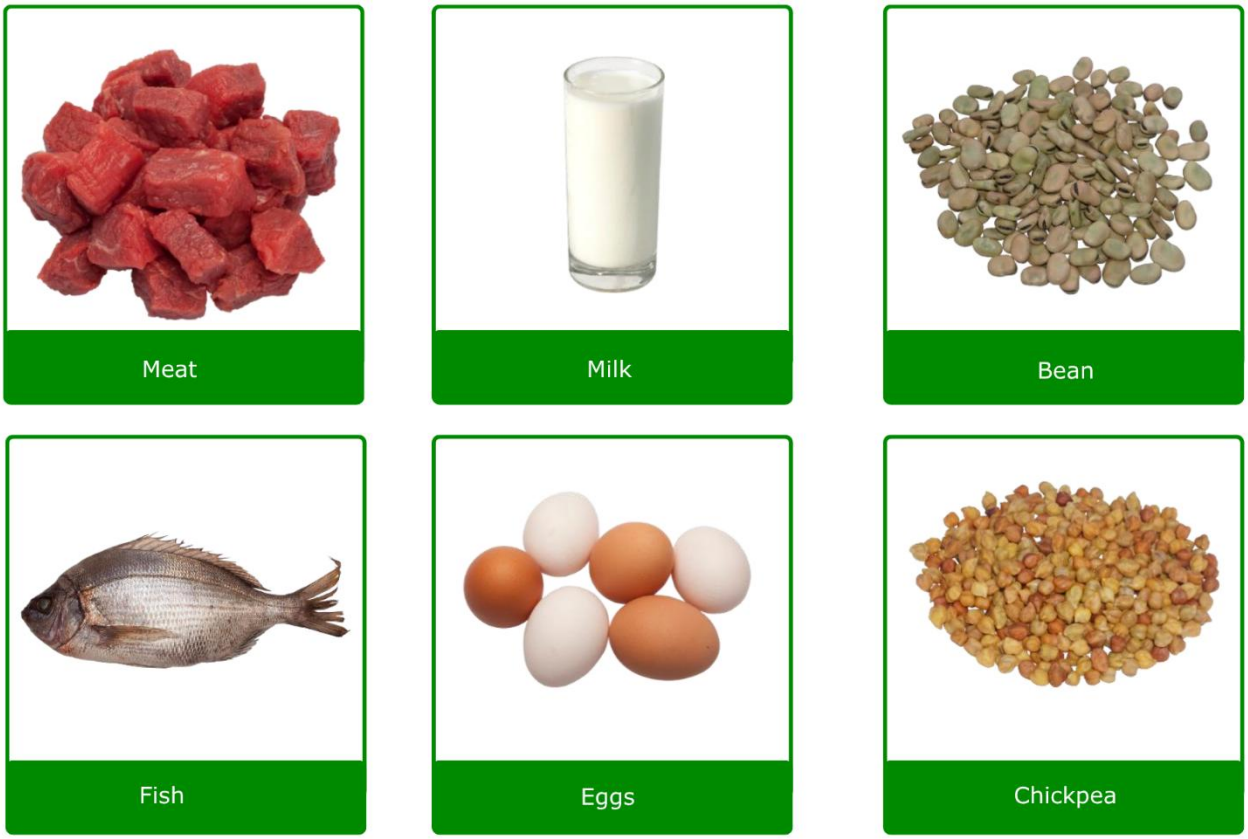


Figure 3 Sources of proteins

Fats provide the body with essential fatty acids necessary to build cell membranes and to make hormones. They also help the body to absorb and transport some of the essential vitamins. Fats also provide the body with a concentrated source of energy. Plants, for example, nuts and seeds, as well as animal source foods like butter can provide dietary fats. Fats are necessary for growth, reproduction,

skin integrity, to maintain cells, and to use body fat for energy. Major food courses of fat (Figure 4) in the Ethiopian diet include:

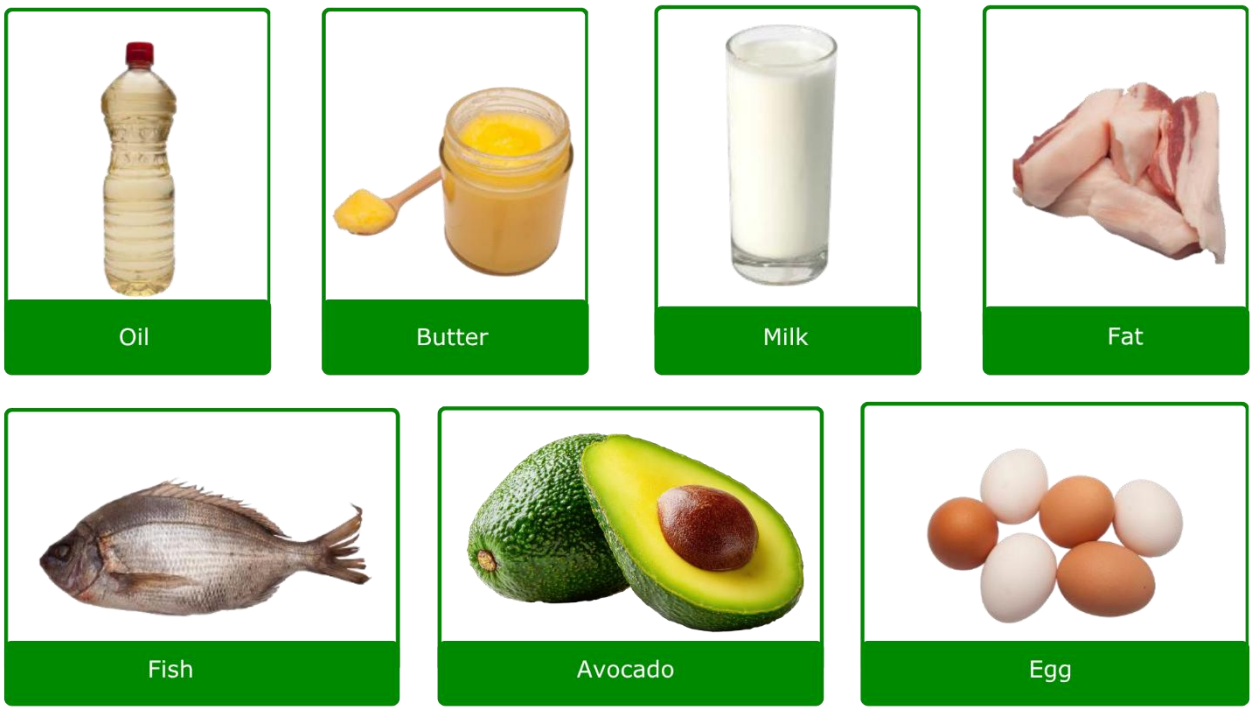


Figure 4 Sources of fats

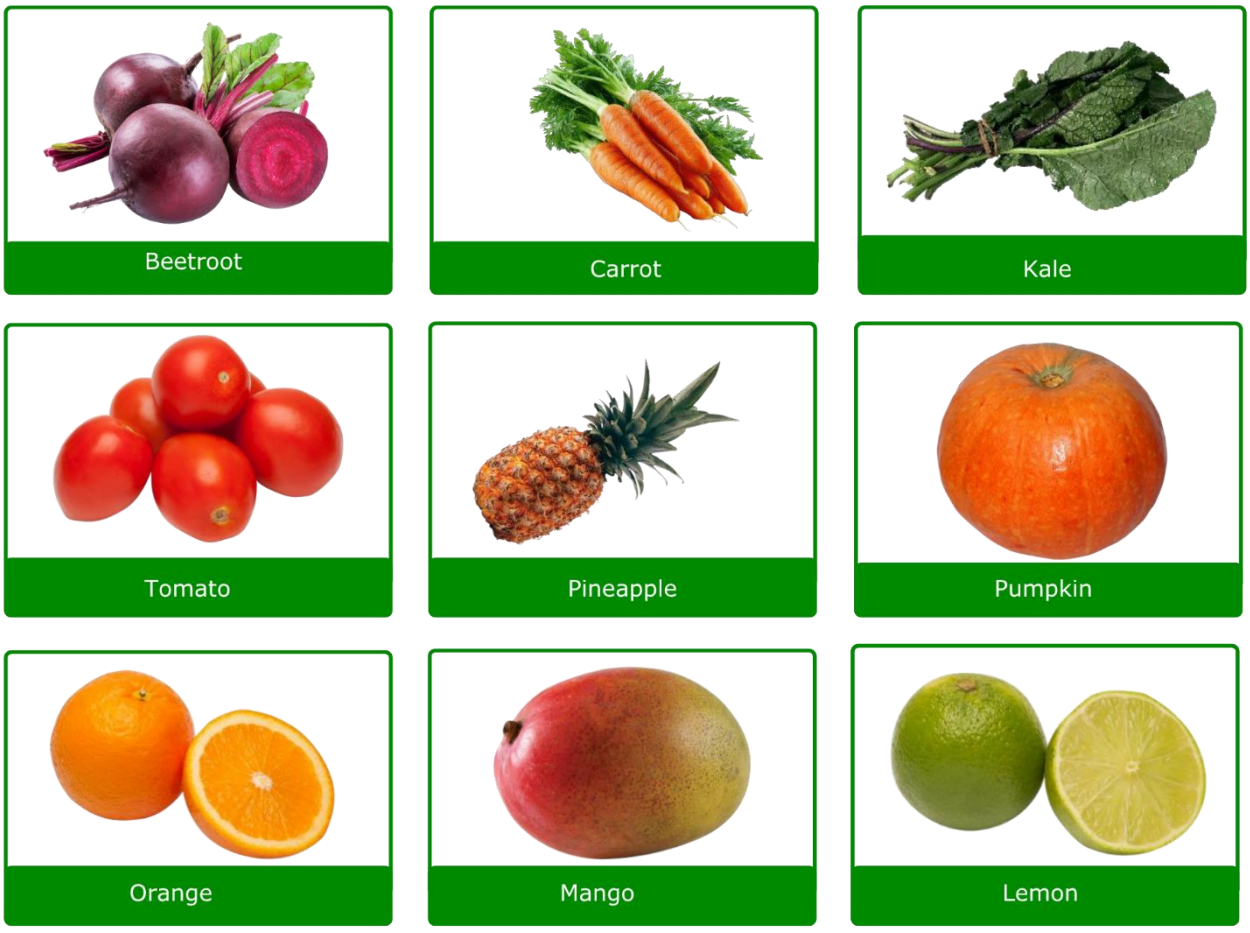


Figure 6 Sources of vitamins

Vitamins are a group of organic compounds that play important functions in the body but cannot be made by the body. Some vitamins can be stored in the body so need to be eaten often but not every day (fat soluble vitamins A, D, E and K), while others cannot be stored and should be eaten daily (water soluble B vitamins, vitamin C). The vitamins play different roles in helping the body in important ways. Some examples include building protein and cells, protecting cells from damage building bones, protecting vision, metabolizing macronutrients, and helping to heal wounds. Without essential vitamins, there are multiple nutritional diseases that can result. Major food sources of vitamins (Figure 5) in the Ethiopian diet include:

Minerals are a solid, inorganic group of compounds that are essential building blocks of different types of cells. Essential minerals include iron, zinc, calcium, and iodine among others. For example, iron is part of red blood cells, which transport oxygen through the body. Zinc has many critical functions in the body, including the make-up of cells and body systems including immune function, important for disease prevention and to stay healthy. Major food sources of minerals (Figure 6) in the Ethiopian diet include:

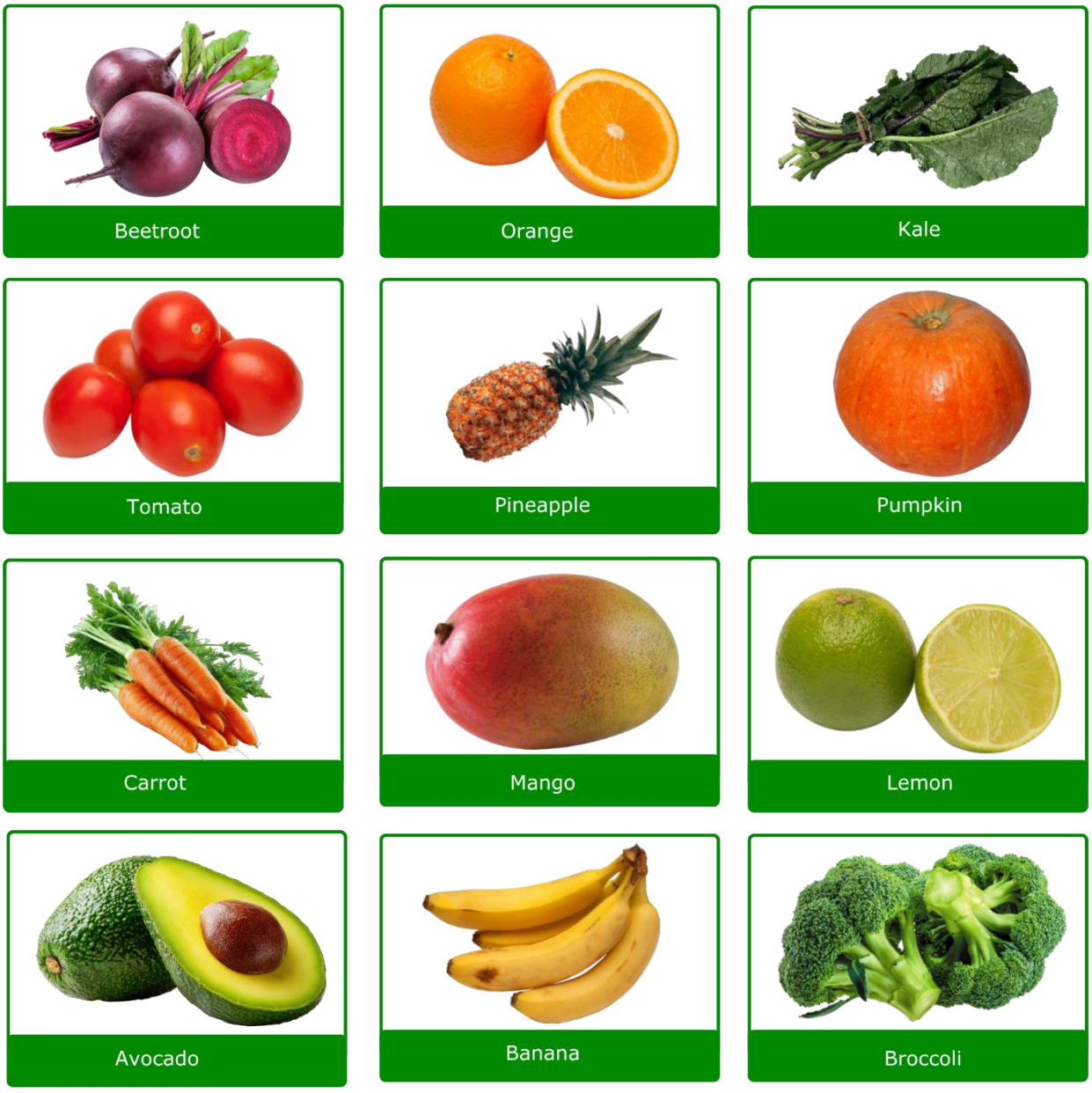


Figure 7 Sources of minerals

Nutrient requirements refer to the different nutrients required by the body for energy, growth and repair, and protection from disease. They differ according to age, gender, physical activity, height, weight, and health status of the individual. Each food has different quantities of different nutrients, which sometimes interact with each other in the body.

The nutritional status of an individual person therefore results from nutrient intake, nutrient requirements, and the body's ability to digest, use, and absorb the nutrients that are ingested.

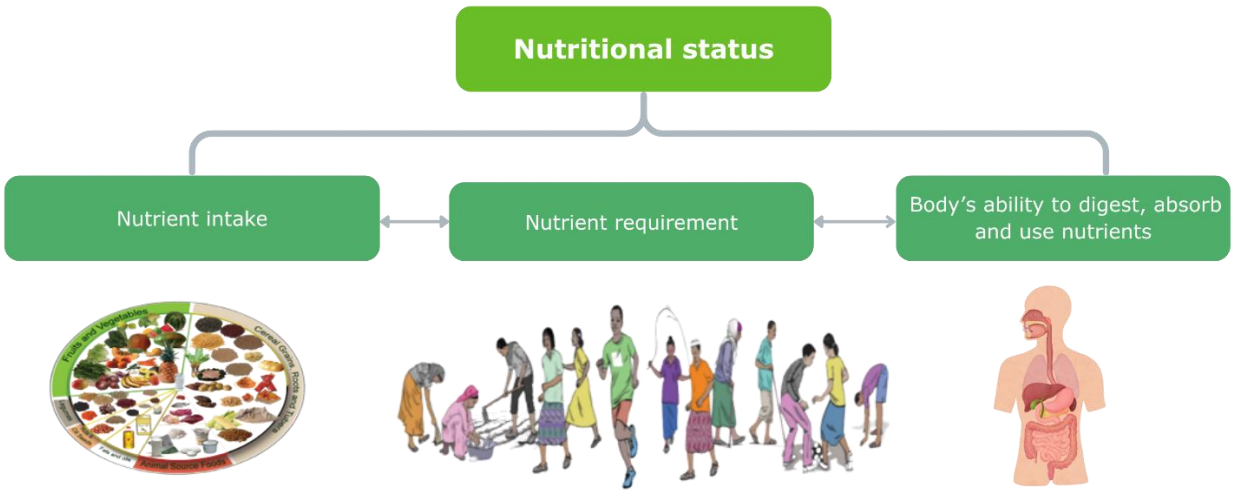


Figure 8 Determinants of nutritional status

3.3 Types of malnutrition

Malnutrition is a term that includes over nutrition and undernutrition.

Overnutrition results from too much energy intake relative to nutrient requirements based on age, gender, physical activity, height, weight, and health status of the individual. In Ethiopia, this is still rare, but it is becoming more common in populations with increased exposure to energy-dense foods who often live in urban areas. Effects of overnutrition include increased lifetime risk of chronic diseases, including diabetes, cardiovascular disease, obesity and cancer.

Undernutrition is, in general terms, an outcome of insufficient quantity and quality of food and frequent episodes of infectious disease.

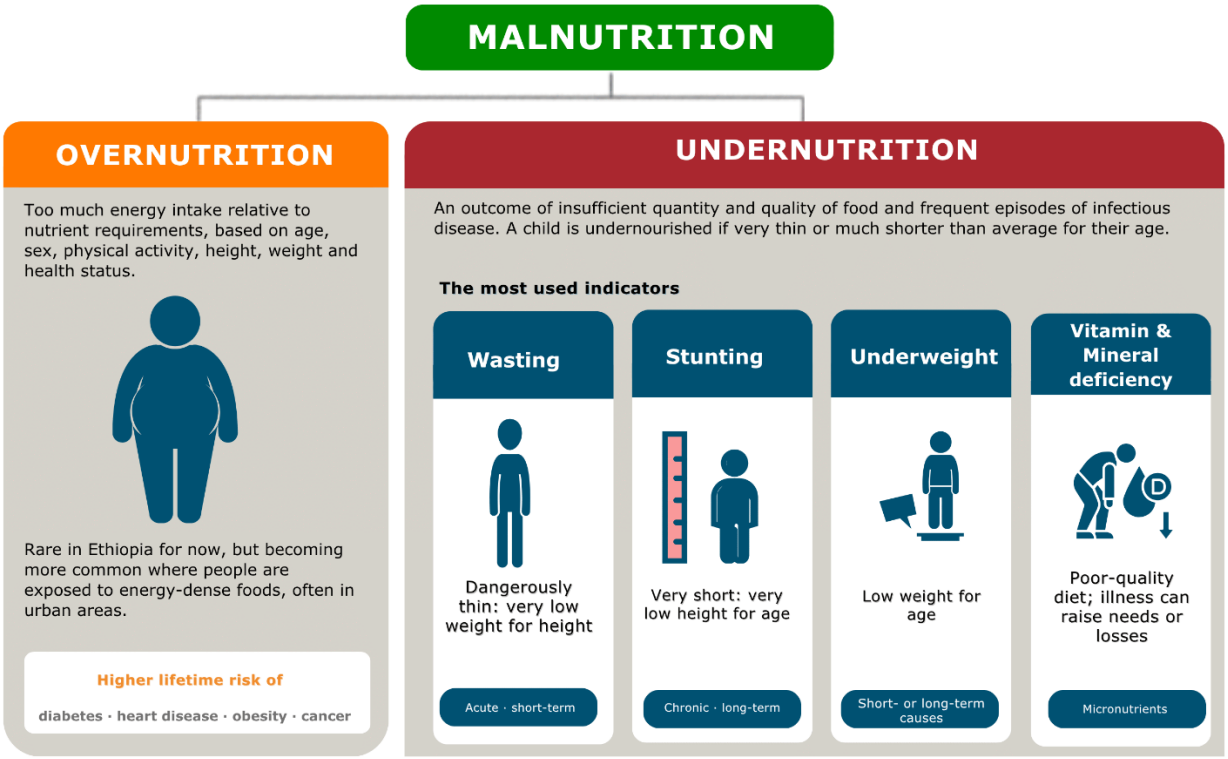
Undernutrition describes a range of conditions including being underweight, being short, being thin and being deficient in vitamins and minerals. A child is defined as undernourished if they are very thin or much shorter than the average for their age. The most used indicators of undernutrition are:

- Wasting: normally the result of acute or short-term insufficient food intake often combined with frequent illness. Results in a child who is dangerously thin (i.e. they have a very low weight for their height).
- Stunting: normally an indicator of chronic or long-term insufficient energy or micronutrient intake although it has many non-nutritional causes such as helminth infestation and frequent or chronic infection. Results in a child who is very short (i.e. they have a very short height for their age).
- Underweight: an indicator assessing the adequacy of weight-for-age. The causes of which can be short-term or long-term and are difficult to define.

- Deficiencies in vitamins and minerals because of a poor-quality diet. Micronutrient deficiencies can also result from frequent illness which may increase requirement, utilization, or loss of nutrients

Good nutrition: The foods and drinks you eat provide your body with all the nutrients you need, and that your body is able to use those nutrients well for health, growth, and energy.

Poor nutrition: The foods and drinks consumed are not giving you enough nutrients, and / or that your body cannot use the nutrients, perhaps because of an illness or other health problem.



4 How to implement social behavioural change communication

This section will present an overview of how this manual is structured, and how to approach each section. While nutrition messages can be presented alone, evidence from Ethiopia and other contexts shows nutrition messaging is much more likely to be successful if it is combined with interventions that also increase access to nutrient-dense foods (Ruel et al., 2018)

Because of the critical link between nutrition and gender, including in making decisions around what foods are consumed in a household and around how income generated from the sale of agricultural products is spent, the RAISE-FS project aims for behaviour change in relation to gender norms, as well as food consumption. Very briefly, social analysis and action is a methodology that aims to transform gender norms and relations. It starts with project staff themselves reflecting on their own views around social norms and values influencing gender relations and how these play in their own lives, providing both a space for reflection as well as an opportunity to change one's behaviour and lead by example. In a second phase, staff support the community to reflect on social norms and develop an action plan to try to change these norms and address discrimination or facilitate discussions around limiting beliefs and values. Action plans are then implemented using a combination of both community and project resources. For a more detailed description of the approach, see: https://www.care.org/wp-content/uploads/2020/05/social_analysis_manual.pdf . To design effective behaviour change interventions, it is crucial to ensure that they are context-specific and evidence-based. For further details, please refer to Annex 1.

4.1 Overview of the six-month SBCC implementation approach

The manual is structured around six months of implementation, prioritizing selected messages from the 11 EFBDG key messages based on formative research findings and their relevance to the local context of the pilot areas. Research into changing behaviours shows that people are more likely to change their behaviours, in a sustainable way, if they are exposed to messages multiple times, and given space to try and reflect on the impact of the messages in their own lives (Sanghvi et al., 2016). In each month, one of the prioritised key messages from the Ethiopian food-based dietary guidelines is presented. This is followed by key insights from formative research carried out in the implementation area, to guide how to develop effective messages tailored to that community, including an activity to organize.

4.1.1 Background to the key message of the Ethiopian Food-based dietary guidelines

Each section was started by identifying the selected key message that was the priority for that month. In this section, you will find more details about the message, including how to better understand the key message, for example how to understand the various portion sizes, or to answer questions the community might ask.

4.1.2 Formative research underpinning the proposed activity

One of the key principles to make behaviour change communication messaging effective is to carry out formative research to understand how people understand a healthy diet, and what behaviours they currently practice in terms of food choice. In this section, both quantitative and qualitative data from the RAISE-FS baseline survey are presented. Key findings are synthesized to inform the suggested target activities for the behaviour change communication work in RAISE-FS. Based on the findings from the formative research, lack of knowledge is usually not the (only) or even the main factor which limits people from implementing the Ethiopian food-based dietary guidelines. The summary of the formative findings for targeted message is described here (Table 2).

Table 2 Summarised formative research findings (Glaser et al., 2024)

FBDG recommendation	Formative research finding	Focus for sessions
Diversify your diet: at least 4 food groups in every meal and 6 food groups every day.	• Low diversity everywhere. Average DDS: Amhara 2.4, Oromia 3.2, previous SNNPR 3.1. Men and women score similarly. The Tigray region average DDS was 2.8. The score was 2.9 for men and 2.7 for women (2.8 for women of reproductive age) • Awareness of 4+ food groups in a healthy meal: Oromia almost all groups; Amhara 4 of 6; previous SNNPR only 2 groups. Tigray Focus groups in all three woredas described a healthy meal as teff or barley with vegetables and animal-source foods. Also limitations in farmers' ability to identify and classify different food groups. • Diversity linked to health: Oromia all but 1 group; Amhara 3 groups; previous SNNPR none. Tigray only male group	Build the "why variety means and matters" message, especially in previous SNNPR.
Eat 80–120 g of legumes daily (e.g., beans, chickpeas, peas or lentils).	• Many people eat legumes, especially in Amhara. • Almost all groups left legumes out of a healthy meal, mostly in Oromia, Tigray, and previous SNNPR and among men.	Link legumes to a healthy meal; reinforce so consumption does not fall as diets change.
Eat 100–200 g of fruits and vegetables of different colors daily.	• Amhara: few eat vegetables, but 4 of 6 groups called them healthy. • Oromia: about half eat them; all groups mentioned them. • Previous SNNPR: commonly eaten, but only half of groups saw them as healthy. • Vegetables were named in the healthy meal in all of Tigray; consumption is very low	Amhara and Tigray: address access and habit. Previous SNNPR and Oromia: more address perception.
Eat 10–20 g of nuts and oilseeds daily (e.g., groundnuts, sunflower or sesame seeds).	• No group in any region mentioned them as healthy. • Baseline consumption is very low.	New message; no existing awareness to build on.
Include animal-source foods (e.g., eggs and meat, 60 g) and dairy foods (300–400 g) daily.	• Almost all groups named them as part of a healthy meal, but consumption is low. • Dairy is eaten by 2% in Amhara and about a quarter in Oromia and the previous SNNPR. Tigray: meat only 2%; other animal-source foods rarely eaten. • Fish rarely mentioned as healthy.	Awareness is high; the gap is access and cost. Promote affordable options and fish consumption.
Drink 8–10 large glasses of clean water daily, be physically active for at least 30 minutes a day and limit salt intake to below 5 grams per day.	• No formative research done. • Easy to practise and cost nothing.	Use the final month to raise awareness.

Target group: This section outlines the key steps for identifying and reaching the intended audiences with tailored SBCC. For RAISE-FS, initial activities and messages have already been developed based on formative research, EFBDG, and project staff's understanding of the local context. The steps presented here help refine these messages by identifying who needs to be reached, which behaviours need to change, and how best to engage the intended audiences.

Target groups and desired behavioural changes should be identified for each region and, where necessary, each *woreda*, based on local dietary gaps, food practices, and other context-specific factors. This process should distinguish between primary audiences, whose behaviours the intervention seeks to change, and influencing audiences, who can support or enable those changes. Users of this guide working outside RAISE-FS are encouraged to follow the same steps to identify their own target groups and develop context-appropriate SBCC interventions.

Activity

This section describes an activity that should be carried out with the community to help them understand, reflect on, and be able to experiment with the EFBDG. The aim is for the activity to provide the community time and space to reflect on the EFBDG and especially particular challenges that they might have implemented in their own lives, for example, facilitating discussions around challenges related to financial affordability. For each activity, the key preparation that is needed is described, as are the steps to carry out the activity. The idea is that people are more likely to remember messages when they participate in something interactive, and it provides space to discuss the barriers people may face in implementing certain interventions.

Assignments

Finally, in addition to bringing community members together to share one of the key messages, the session ended with an "assignment", which provides an opportunity to practice implementing some of the suggested dietary messages. Farmers were encouraged to apply the key messages in their own homes. Time and space can be provided at the start of each session to reflect on the experience of implementing the actions from the previous session.

Implementation pathway

The implementation pathway begins with a baseline assessment to identify existing dietary practices and behavioural barriers. The findings inform the development of BCC materials, facilitator training, and delivery of nutrition activities, including monthly nutrition messages, cooking demonstrations, joint engagement of husbands and wives, and SAA. Monitoring and evaluation are integrated throughout implementation to track progress, document learning, and assess achievements against the intended outputs and outcomes. Figure 9 summarises the key implementation stages.



Host farmers taking home EFBDG posters to reinforce monthly nutrition messages in Gummer woreda, Central Ethiopia.

Implementing EFBDG: capacity building and community action

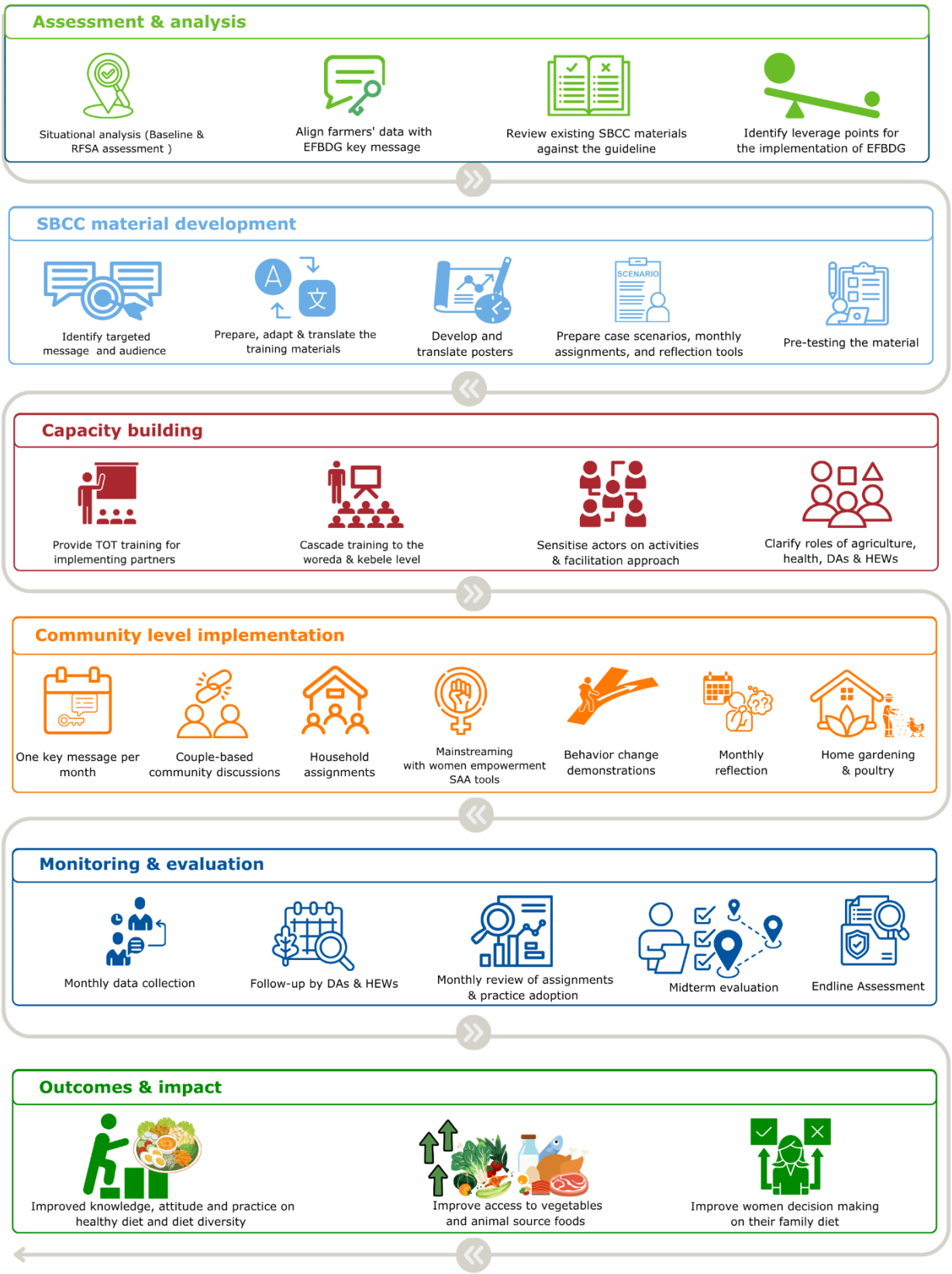


Figure 9 Implementation pathway

Link to RAIS-FS posters: https://raise-fs.org/others/

4.2 Key tips for facilitating the sessions

Training practice: rehearse before community delivery

Work in small groups using an existing monthly module. Take turns facilitating its opening discussion, practical activity and closing assignment. Ask the group to reflect on three questions: Was the message clear? Did participants have space to contribute? Was the household action feasible? Use the feedback to improve facilitation before delivering the session.

Facilitating a session



Remember

A good session is not about talking to people. It is about creating space for people to talk, reflect and decide how they can practise the new behaviour in their own lives.

4.3 Month 1: Diversify your diet

Month 1

Key message 1

Diversify your diet by selecting from at least 4 food groups in every meal and 6 food groups every day.

Background to the key message

What does a diverse variety of foods mean, and how much should we eat?

- A varied/diverse diet means a plate with at least 4 food groups in every meal and 6 different food groups every day
- A varied diet should provide the required amount of nutrients necessary for good health
- Different food groups must be added to the main dish to vary a diet

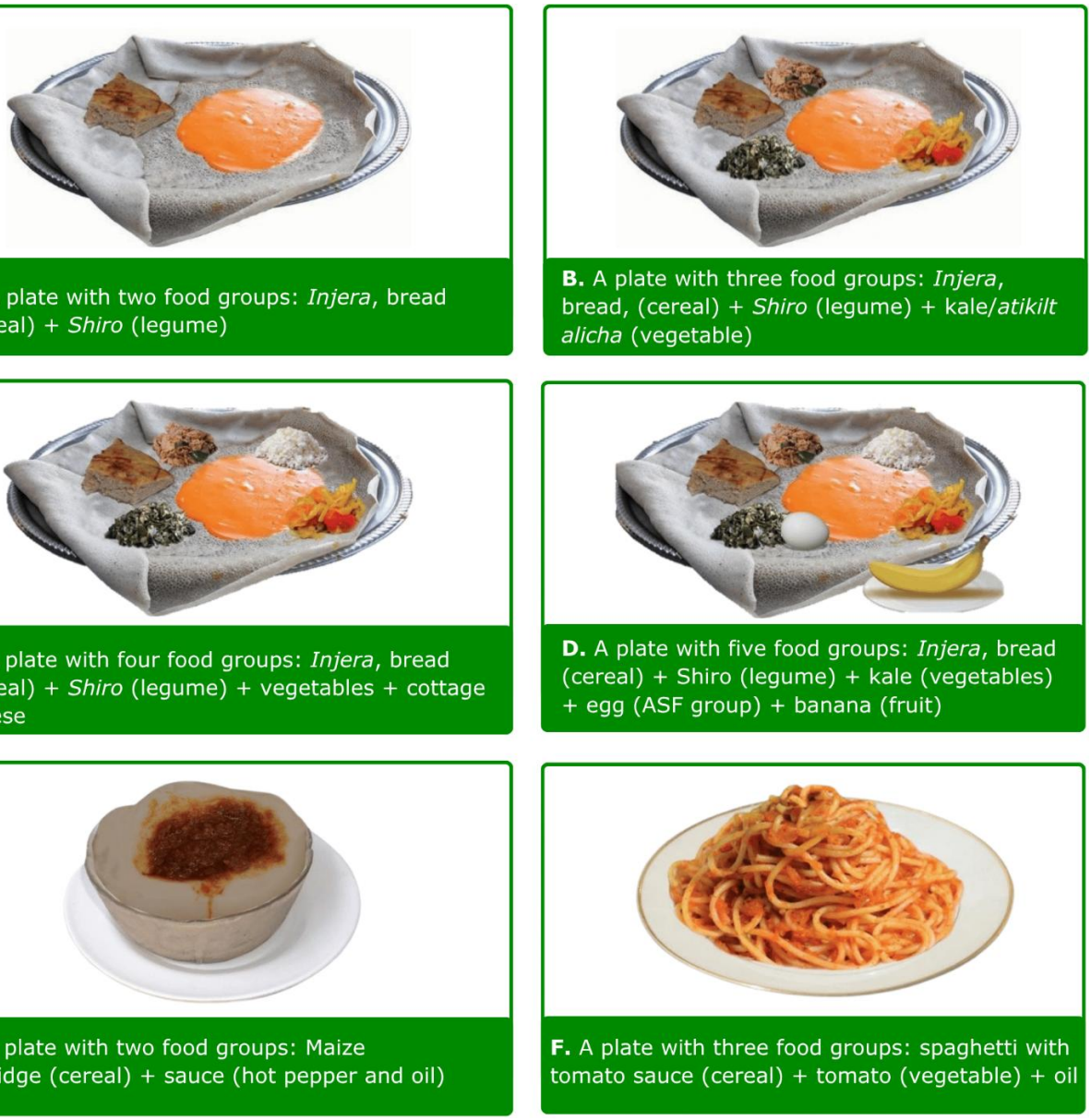


Figure 10 The six food groups

How much should we eat from the cereal subgroup?

- The minimum recommended intake of cereals for younger children (2–5years) is 2–3 servings per day. This increases to 2–4 servings per day for adolescents (6–18 years). For adults (19–64 years) and the elderly (65+ years), it is 3–4 servings per day.
- The minimum recommended intake of cereals for intermittent and continuous fasting is 3–4 servings per day.

Table 3 Minimum recommended number of servings of cereal-based foods per day

	Servings per day			
2–5 years		**6–18 years**	**19–64 years**	**65+ years**
Non-fasting	2–3	2–4	3–4	3–4
Intermittent fasting	*	3–4	3–4	3–4
Continuous fasting	*	3–4	3–4	3–4

**Not applicable*

Commonly consumed cereals depicted in grams



Figure 11 Commonly consumed cereals depicted in grams

Food groups and variety of foods in brief

- Other than in pastoralist areas, the major Ethiopian diet is plant-based, consisting mainly of grains, root, and tuber groups. Depending on the food culture, the common foods we eat from this 1st group are *injera*, bread, *kocho*, and *kolo*.
- The 2nd food group is pulses and legumes such as peas, and lentils used to prepare stews such as lentil stew and pea-flour stew – shiro wot – to which other food groups mentioned below are added.
- Nuts such as groundnuts in *kolo* served as a snack, and oilseeds such as sesame and lentils commonly used especially during fasting periods make the 3rd group.
- Besides the legume-based stews above, stews can be prepared from different types of meat (chicken, beef, fish) in the 4th group. Milk, yoghurt, and egg also belong to this group.
- Vegetables prepared as stew or salad, and fruits such as bananas, oranges, and avocados make up the 5th group.
- Oil Fats and oils are added to stews and other foods to make them tasty. This comprises the 6th food group.
- Water is very vital for good health.
- For good health, drink a minimum of eight large glasses of water daily, complemented with daily physical exercise.

Tips

- The more food groups you eat from, the better your health
- Use the 'food graphic' to help you make healthy choices
- Vary your food as much as possible per meal, during the day and across the week

Deciding on the target groups and messages

The primary target group for RAISE-FS was host farmers participating in home gardening and poultry asset building, and SAA interventions, together with their spouses. Identify and select the target audience based on the local context and objectives.

Steps 1 and 2: In RAISE-FS implementation areas, most people's idea of a healthy meal was in line with the recommendation of 4 food groups per meal. However, on average, people consumed less than 3 food groups during the day. The food groups that are least consumed include, in order from lowest consumption: meat, nuts and seeds, eggs, vitamin A-rich vegetables (not dark leafy), and fruit. The most commonly consumed food groups include grains, roots and tubers, pulses, and other vegetables.

Step 3: Develop a final set of behaviours and a behaviour change targets. The target behaviour suggested in the table should remain the same, but the specific objectives and aims can be modified based on the specific goals for your region. They should especially focus on adding foods which are most lacking in the diet.

Table 4 Illustration of a defined behaviour change goal and its objectives

Behaviour change goal	Objectives (SMART)	Aim
Target group: In region: Diversify their diets by consuming at least 6 food groups each day to the FBDGs	___% of _____ who participate in the training increase their dietary diversity score from ___ to __	Target actual behaviour
	Participants commit to adding one food group to one meal a day	Breaks down the behaviour into smaller, more manageable pieces
	_____% of _____ will have a home garden to access additional vegetables and fruits.	Target the barrier of availability.



Follow-up discussion with community members on implementation progress during the mid-term backstopping visit. Tsead Amba woreda, Tigray Region

Activities

Option 1: Food group classification and reflection

TIME · *1 to 1.5 hours*

Materials

- Real foods or clear pictures of local foods covering the 6 food groups
- Space for everyone to stand or sit around the foods

Activity pathway

Set up → Sort → Review → Reflect → Explain → Explore access → Record

1. **Set up:** Place the locally available foods or pictures in the centre where everyone can see them. Invite participants to gather around.
2. **Set up:** Place the locally available foods or pictures in the centre where everyone can see them. Invite participants to gather around.
3. **Sort:** Ask participants to group the foods into the 6 food groups:
   - Cereals, grains, white roots and tubers
   - Legumes
   - Nuts and oilseeds
   - Animal-source foods (milk and dairy, meat, fish, eggs)
   - Fruits and vegetables
   - Fats and oils
4. **Review together:** Check the groups in a friendly way. This is not a test; everyone learns together.
5. **Look at yesterday's meals:** Ask what their household ate yesterday. Together, identify which food groups were included, and which were missing.
6. **Explain the benefits:** Briefly explain what each group does for health, especially the missing groups.
7. **Discuss access:** Ask: Which foods are hardest to get in your area? Why? What ideas do you have to get them more easily?
   - Encourage practical local solutions : home gardens, intercropping, poultry, local storage and food preservation
   - Ask participants to choose options that suit what is available in their area and the season
8. **Record:** Note the main points and experiences shared from the discussion, for monitoring and learning.

Assignment: one small action

Before participants go home, ask each person or household to choose **one specific action** to diversify their diet. They practise it as often as possible over the coming month.

Examples

- Add vegetables and fruits to one meal every day.
- Include an egg in the family's meals a few times a week.
- Add legumes to a common dish at least three times a week.
- Prioritize food groups that are not commonly consumed in daily diets.

Why only one action? A small, clear action is easier to achieve and builds confidence.

4.4 Month 2: Eat 80–120 grams of legumes every day

Month 2



Key message 2

Every day, eat 80–120 grams of legumes such as beans, chickpeas, peas or lentils.

Background to the key message

Why are legumes important and how much of them should we eat?

- Legumes such as beans, chickpeas, and lentils are very good sources of proteins and other nutrients
- Consuming legumes lowers BMI, slows weight gain over time and decreases occurrence of cardiovascular disease (CVD) and Type 2 Diabetes Mellitus (T2DM0)



Figure 12 List of legumes

How much should we eat from the legume food group?

- The minimum recommended intake of legumes for young children (2–5 years) is 1 serving a day. This increases to 1–2 servings per day for adolescents (6–18 years), adults (19–64 years) and the elderly (65+ years).
- The minimum recommended intake of legumes for intermittent fasting is 1–2 servings per day and 2–3 servings per day for continuous fasting.

Tips

- Most legumes such as beans and peas contain anti-nutrients which makes them difficult to digest. These are eliminated or reduced by soaking, letting them grow sprouts or boiling.
- Soaking overnight also reduces cooking time and saves you fuel
- When you eat grass peas (*guaya*), process them appropriately by well-known techniques such as soaking, roasting and dehulling

Table 5 Minimum recommended daily servings of legumes per day

	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	1	1–2	1–2	1–2
Intermittent fasting	*	1–2	1–2	1–2
Continuous fasting	*	2–3	2–3	2–3

**Not applicable*

Commonly consumed legumes depicted in grams

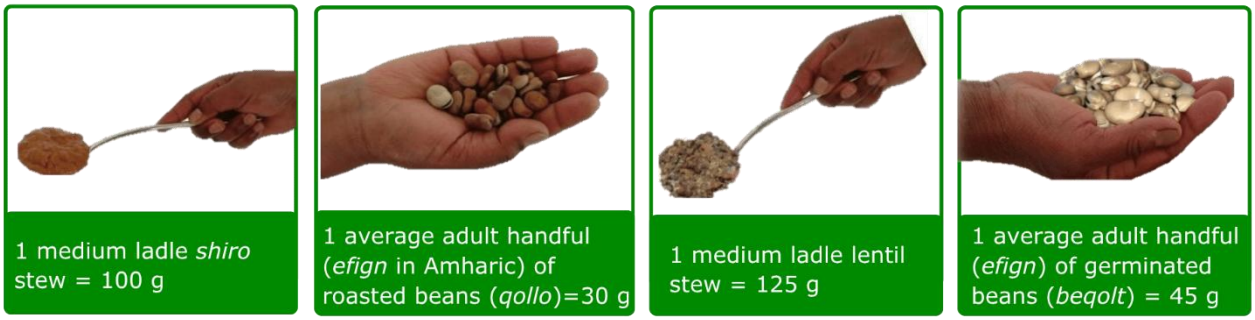


Figure 13 Commonly consumed legumes depicted in grams

Target groups and messages

In this section, the goal is to dig deeper into the specific context for your region and implementation *woredas*. This means that the specific target groups and messages that you focus on might be different, although the same issues will be considered. For example, in a region where legumes are commonly consumed, messages might focus on the continued importance of consuming high amounts of legumes, whereas in an area where people have less of a culture of legume consumption messages may need to focus more on how and when to prepare them.

Steps 1 and 2: what are the current gaps, in terms of legume consumption? According to the data collected, as well as other dietary data collected in the Ethiopian context, the formative research finding indicated that current consumption of legumes is quite high and is a positive behaviour that we would like to preserve, especially as people's diets may start to change with increasing incomes.

Step 3: Develop a final set of behaviours and a behaviour change messages and activities:

Table 6 Illustration of a defined behaviour change goal and its objectives

Behaviour change goal	Objectives (SMART)	Aim
Target group: In region: Consuming at least one serving of legumes each day	___% of _____ who participate in the training increase consumption of legumes from___ to __ (or start consuming soy, haricot bean or another new legume	Target actual behaviour
	_____ number of HHs will participating in cooking demonstrations for new legumes	Target the barrier _____

Activities

TIME · *1 to 1.5 hours*

Preparation / Materials needed

- Real samples or clear pictures/photos of various beans and legumes commonly available in the area
- If the project (RAISE-FS or others) is promoting new legumes (e.g. soybean, haricot bean, mung bean), include these as examples
- Enough samples or pictures so that each small group can receive a selection
- Optional: ingredients and materials for a short recipe demonstration for new legume crops

Activity pathway

Set up → Reflect → Explore → Demonstrate → Group discussion

1. **Set up:** Divide participants into small groups of 5–7 people.

2. **Reflection:** Start with reflection on the previous assignment. What action did you try at home? What did you experience or notice? (Examples:improved taste, feeling fuller for longer, children or other family members enjoyed the food, challenges and opportunities to implement etc.) Record the main points shared.

3. **Explore:** Explore local legumes. Give each group a selection of the different legumes available locally (real samples or pictures). Ask each group to discuss:
   - What recipes can be prepared with each of these legumes?
   - If no one in the group knows a particular legume, the facilitator can share simple ideas on how it can be eaten.
   - If a legume is not commonly eaten, ask the group why.

   Discussed the importance of legumes in a healthy and diversified diet.

4. **Demonstration:** Recipe demonstration (especially for newly introduced legumes) For new legumes such as soybean, haricot bean, or mung bean, conduct a short and interactive recipe demonstration. In addition, demonstrate a variety of locally available foods and preparation methods that help households incorporate the six food groups highlighted in Key Message 1 into their meals.
   Important points for the demonstration:
   - Show proper preparation methods (including soaking or other techniques to reduce anti-nutritional factors)
   - Make the demonstration as interactive as possible so participants learn by doing, not only by watching
   - Allow participants to taste the prepared dish and share their opinions

5. **Group discussion**

Use the following questions to stimulate discussion:

- What types of legume recipes do you normally prepare at home?
- Which legumes are the cheapest in your area?
- Which legumes do you prefer, and why?
- Which legumes do you not eat, and why?
- Encourage participants to share practical ideas and solutions.

Assignment: one small action

Ask each participant or household to try one new recipe using a legume that they do not commonly consume. This can be linked to a newly introduced legume . In addition to trying a new recipe, participants can also practice improved preparation methods such as soaking, sprouting and other local methods that make legumes easier to digest and more nutritious.

4.5 Month 3: Eat 100–200 grams of various fruits and vegetables every day

Month 3



Key message 3

Eat 100–200 grams of various fruits and 100–200 grams of vegetables of different colours every day, such as bananas, apayas, kale, carrots and tomatoes.

Background to the key message

Why are fruits and vegetables important and how much of them should we eat?

- Fruits and vegetables are rich sources of micronutrients (vitamins, minerals, antioxidants) and dietary fibre, vital for your health.
- The amount of micronutrients in fruits and vegetables varies according to the type of vegetable or fruit:
- Deep-coloured F&Vs such as orange-fleshed sweet potatoes, carrots, mangoes and papaya are excellent sources of pro-vitamin A carotenoids, needed for healthy vision and fighting infections.
- Dark green vegetables such as kale and Swiss chards provide folate and vitamin A. Folate is especially important for pregnant women, as it ensures that the baby develops well, and is also essential for healthy blood.
- Vitamin A is important for healthy vision

Tips

Make fruits and vegetables part of your daily meal

- Choose fruits and vegetables that are fresh and in season
- Wash your fruits and vegetables with clean water
- Avoid overcooking vegetables; you lose vitamins
- Use and promote locally available, and potentially less consumed, nutrient-dense foods

How much should we eat from the fruit's subgroup?

- The minimum recommended intake of fruits for younger children (2–5 years) is 1–2 servings per day. This increases to 1–2 servings per day for adolescents (6–18 years). The serving size for adults (19– 64 years) increases to 2–3 servings per day. For the elderly (65+ years), it is 1–2 servings per day.
- The minimum recommended intake of fruits for intermittent and continuous fasting is 2–3 servings per day.

Table 7 Minimum recommended number of fruit servings per day

	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	1–2	1–2	2–3	1–2
Intermittent fasting	*	2–3	2–3	2–3
Continuous fasting	*	2–3	2–3	2–3

**Not applicable*

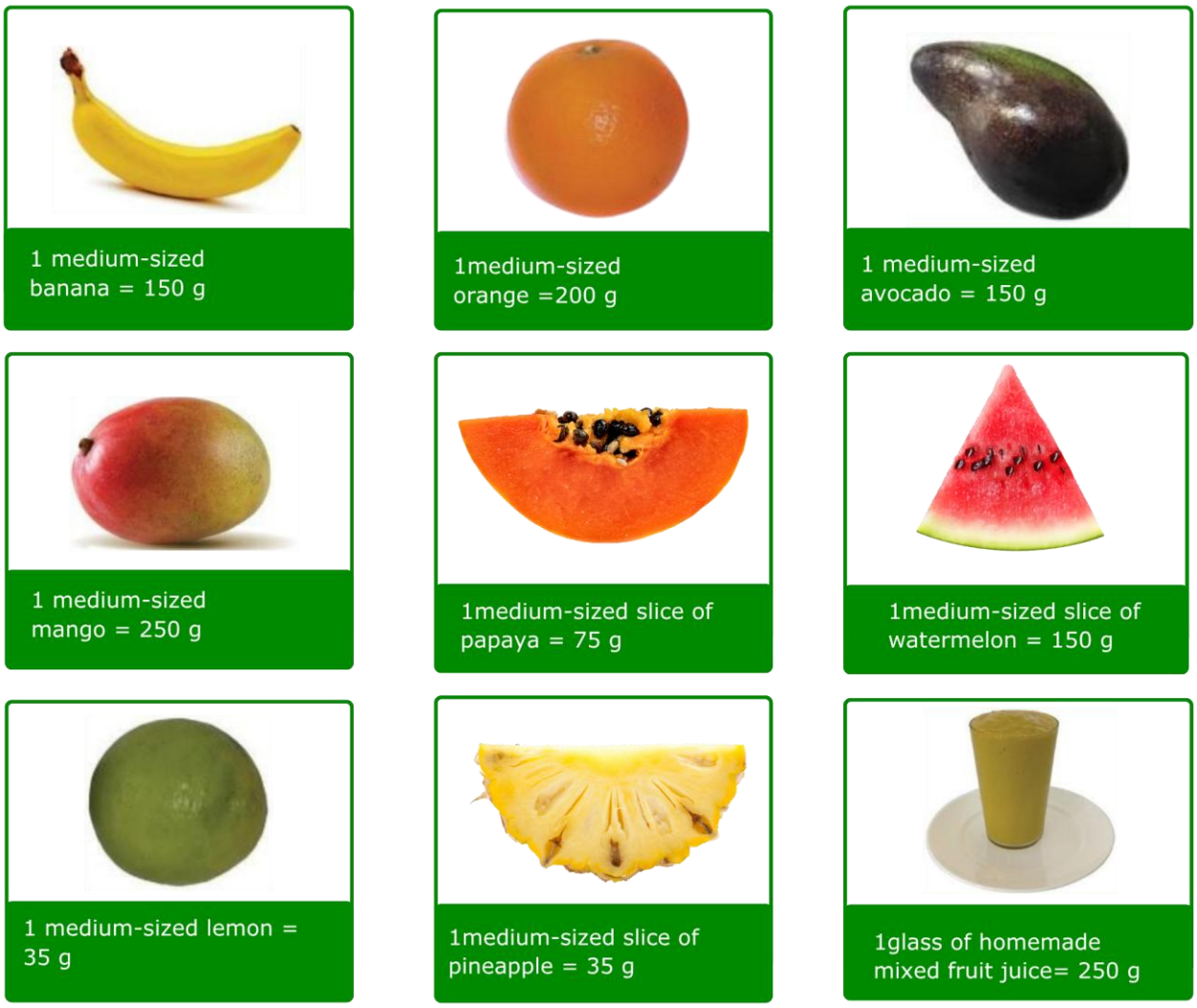


Figure 14 Commonly consumed fruits depicted in grams

Commonly consumed fruits depicted in grams

How much should we eat from the vegetable subgroup?

- The minimum recommended intake of vegetables for younger children (2–5 years) is 1 serving a day. This increases to 1–2 servings per day for adolescents (6–18 years) and for the elderly (65+ years). For adults (19–64 years), it increases to 2–3 servings per day.
- The minimum recommended intake of vegetables for intermittent and continuous fasting is 2–3 servings per day

Table 8 Minimum recommended number of vegetable servings per day

	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	1	1–2	2–3	1–2
Intermittent fasting	*	2–3	2–3	2–3
Continuous fasting	*	2–3	2–3	2–3

**Not applicable*

Commonly consumed vegetables depicted in grams

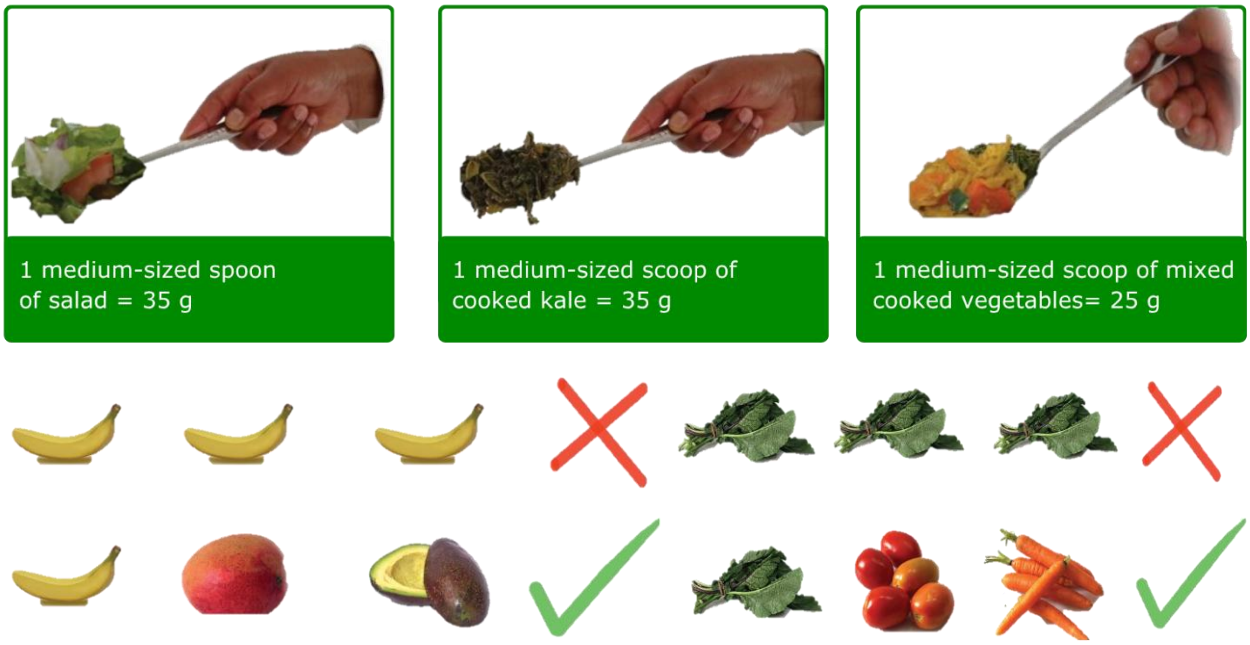


Figure 15 Commonly consumed vegetables depicted in grams

Target group and messages

In this section, the goal is to dig deeper into the specific context for your implementation areas to further target the messages. This means that the specific target groups and messages that you focus on might be different, although the same issues will be considered. For example, if a region where vegetables and/or fruits are commonly consumed, messages might focus on the continued importance of consuming high amounts of vegetables and fruits, whereas in an area where people have less of a culture of vegetable and/or fruit consumption, messages may need to focus more on how and when to prepare them.

Step 1 and 2: what are the current gaps, in terms of vegetable and fruits consumption? Looking at the formative research, what are the specific fruits and or vegetables people are currently not consuming? Since we do not capture data on quantity consumed, you may also have to think about your own knowledge of people's diets. Do they consume adequate amounts of vegetables and fruits? Another issue might relate to preparation. Do people regularly overcook vegetables, or add too much salt when preparing them?
Whose behaviour do you want to change? Which group of people? For example, are you targeting only households with home gardens? Or a larger group? Are you targeting specific fruits and vegetables (perhaps those that are being supported in home gardens?) If you are targeting farmers or households without home gardens, how will you also address the issues of access?

What barriers do these people face in trying to implement the behaviour (refer to the formative research as well using your own knowledge about this group and the specific challenges they face in implementing the described behaviour? For fruits and vegetables, seasonality might be a key barrier that needs to be addressed. This could be addressed, in part, by encouraging households with home gardens to use staggered planting as a way of increasing year-round access to vegetables and fruits. Wild, indigenous crops can also be considered to increase access to fresh vegetables.

Step 3: Develop a final set of behaviours and a behaviour change messages and activities. Remember to make this specific both in terms of target group and behaviour!

Table 9 Illustration of a defined behaviour change goal and its objectives

Behaviour change goal	Objectives (SMART)	Aim
Target group: In region: Consume at least 2 different coloured vegetables and fruits each day	___% of _____ who participate in the training increase consumption of vegetables and fruits from___ to __	Target actual behaviour
	_____ number of HHs with home gardens	Target the barrier of accessibility
	_____number of households engaging in year round production of vegetables and fruits	Target the barrier_____
	_____number of innovations piloted to increase access to vegetable seeds	Target the barrier of home garden sustainability

Activities - choose one that suits your local context

Option 1: Alem's home garden story

Please note that this story can be modified and adjusted to make it relevant for different contexts, for example, changing the names.

Alem knows that vegetables are important for the health of her children, and she wants to have a home garden but faces many challenges. The seeds are expensive, and her husband, Legesse, thinks it is better to spend the money on crops they can sell and earn an income, rather than vegetables which will only be consumed by the household and not bring in any income. When the RAISE-FS project comes offering free seeds, Legesse) agrees that she can participate, but says that she must do all of the work to take care of the home garden. Alem now spends more time fetching water and working in the garden, but her children enjoy the new vegetables and Legesse is happy that they are eating more nutritious diets. Her husband sees the success of the garden and thinks that there might be opportunities to sell some of the surplus at the market, to generate extra income for the household. While Alem is happy her children consume more nutritious diets, the time to care for the garden is too much for her and she is worried about how she will access seed when the project ends. Additionally, while she is happy her children have more nutritious diets, she is worried her husband will find the vegetables profitable and sell them all at the local market, and decide how to spend the money himself.

Question to reflect on: what would you do if you were Alem? How can she get other members of the household to support her work in the garden? How can Legesse be convinced of the benefits of the garden for the household?

Option 2: Seed access mapping

Another option for the activity would be to focus specifically on challenges related to inputs to ensure sustainability for home garden.

Objectives: To understand how the community accesses nutritious inputs (seeds). To openly discuss the decision-making role of household members regarding buying and growing nutritious inputs (seeds

TIME · *45 minutes – 1 hour* **Method → Input mapping + focus group discussion**

Materials → Flipchart, markers, tape

Introduction

Eating a variety of food groups is key to having a healthy body and carrying out all bodily functions. Growing own healthy food can help communities and households make sure that their families have healthy, balanced diets for optimum health and growth. To have access to these foods, a family or community needs to know how/where to access those seeds, as well as understand who makes decision on what seeds to buy and grow for better nutrition. This session will help participants clarify and understand how they can access nutritious inputs (seeds). Moreover, the gender roles that have typically given women less power to decide in buying and growing nutritious inputs (seeds) for the HH will be examined.

Step 1: Introduce the session topic, discuss the importance of addressing household nutrient needs with own production near the household.

Step 2: Explain to the participants that the aim of this activity is to assess the potential nutritious input sources as well as constraints to buy or grow nutritious foods and opportunities to overcome these constraints.

Step 3: Use the table below (reproduced on a flipchart) to facilitate a discussion with participants to identify potential sources of nutrient-dense inputs in their communities, as well as potential challenges they might face in accessing these foods. Given that many of the participants might be illiterate, you can do this with drawings, or you can simply facilitate a discussion and have one note taker in the group who can record the key outputs.

Seed access planning sample:

Types of nutritious seeds/ crops	Source of the nutritious seed/ crop	Constraints to grow	Opportunities

Option 3: Fatuma's vegetable preparation story

Every morning, Fatuma prepares food for her family before they go to work and school. Her family has access to several vegetables from home garden, including kale, cabbage and carrots, especially during the harvest season.

One day, Fatuma brings fresh kale from her garden. She washes the vegetables, cuts them into small pieces and puts them in a pot with plenty of water. She covers the pot and leaves it cooking while she completes other household activities.

After some time, she checks the pot. The vegetables are very soft, and most of the cooking water is still in the pot. She continues cooking until the vegetables become very soft because she believes that vegetables should be cooked thoroughly before eating.

When the food is ready, she drains some of the remaining water and serves the vegetables to her family. Her neighbour, who is visiting, prepares vegetables differently in her own home. This makes Fatuma wonder whether there are different ways of preparing and cooking vegetables.

Ask participants to work in small groups and identify:

- What Fatuma is doing?
- Which practices in the story are similar to what we do at home?
- What could be improved? Why?
- What practical change could she make?

Facilitators note: The story highlights overcooking vegetables and discarding cooking water, which may reduce nutrient retention. Encourage participants to discuss how these practices can be improved and identify practical ways to prepare and cook vegetables while preserving their nutritional value. For this

session, it is recommended to conduct a cooking demonstration that incorporates foods from all food groups, with particular emphasis on preparing varieties of vegetable-based dishes to promote dietary diversity and increase vegetable consumption.

Assignment

Try one new vegetable or fruit this month. This could be something that you try to grow for the first time or something that you purchase from the market and prepare in a better way.

4.6 Month 4: Diversify your diet with 10–20 grams of nuts and oilseeds

Month 4



Key message 4

Diversify your diet with 10–20 grams of nuts and oilseeds such as groundnuts, and sunflower or sesame seeds.



Figure 16 list of nuts and oil seed

Background to the key message

Why are nuts and oilseeds important and how much of them should we eat?

- Nuts and seeds such as groundnuts, Niger seeds, and sesame seeds are good sources of protein, healthy fats, fibers, vitamins, and minerals. Proteins are important for building healthy muscles and allowing us to work, fats play a role in healthy skin and hair. Fibre helps you feel full for longer and keeps your digestive system healthy.
- Nuts and seeds also contain healthy fats and other nutrients that help keep your heart healthy.

How much should we eat from the nuts and oilseeds group?

- The minimum recommended intake of nuts and oilseeds for children 2–18 years old is 1–2 servings per day. This increases to 1–3 servings per day for adults (19–64 years) and the elderly (65 + years).
- The minimum recommended intake of nuts and oilseeds for intermittent fasting is 2–3 servings per day, and 2–6 servings per day for continuous fasting.



Figure 17 Sunflower and flax seed juice with injera (yesuf/yetelba fitfit) are traditional foods good for health.

Tips

- Adding nuts and seeds to *kolo* (roasted barley, wheat or other legumes) is excellent for your health
- Take nuts as a healthy snack instead of sweetened snacks
- Avoid mouldy nuts or oilseeds as they are not good for your health, and might make you sick, if you consume them regularly this might lead to liver disease.

Table 10 Minimum recommended servings of nuts and oilseeds per day

	Servings per day			
	2–5 years	6–18 years	19–64 years	65+ years
Non-fasting	1–2	1–2	1–3	1–2
Intermittent fasting	*	2–3	2–3	2–3
Continuous fasting	*	2–6	2–6	2–6

**Not applicable*

Commonly consumed nuts and oilseeds depicted in grams



Figure 18 Commonly consumed nuts and oilseeds depicted in grams

Target group and message

In this section, the goal is to dig deeper into the specific context for your region and implementation *woredas*. Nuts and oil seeds are a food group which are not commonly consumed in Ethiopia, nor are they thought to be part of a healthy diet, so it is one food group for which the starting point might be raising awareness about the health benefit of nuts and oil seeds, and how they can be incorporated into a healthy diet.

Steps 1 and 2 What are the current gaps, in terms of nuts and oil seed consumption? Looking at the formative research, what are the specific foods people are currently not consuming? Since we do not capture data on the quantity consumed, you may also have to think about your own knowledge of people's diets, do they consume adequate amounts of nuts and seeds?

Whose behaviour do you want to change? Which group of people? What types of nuts and seeds are available? Which are most affordable?

What barriers do these people face in trying to implement the behaviour (refer to the formative research as well using your own knowledge about this group and the specific challenges they face in implementing the described behaviour? Nuts and seeds might be one of the few foods for which awareness of the health benefits is a key barrier.

These are some examples, but you can also modify and adjust the objectives and aims, depending on what is most appropriate for your own context:

Step 3: develop a final set of behaviours and a behaviour change messages and activities. Remember to make this specific both in terms of target group and behaviour!

Table 11 *Illustration of a defined behaviour change goal and its objectives*

Behaviour change goal	Objectives (SMART)	Aim
Target group: In region: Diversify their diets by adding 10-20g of nuts and oil seeds to their diets	___% of _____ who participate in the training start to consume the food group nuts and seeds	Target actual behaviour
	_____	Target the barrier of _____

Activities

▦ Preparation

Find pictures (or actual examples) of commonly available nuts and seeds in the area.

- Prepare a short presentation of discussion about the health benefits of nuts and seeds. Health benefits include:
- A good source of healthy fats that help make you feel full and contribute to healthy skin and organs
- A good source of fibre which also helps keep you full and is important for digestive health.
- Nutrients in nuts can help make your heart healthier and protect against heart disease.
- If you are worried about weight, nuts can protect against weight gain because the high fat and fiber content helps you feel full longer.

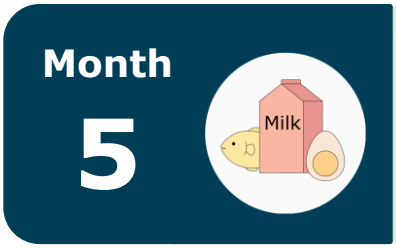
Activity

Show the list of nuts and oil seeds, and ask the participants if they produced, or ate these foods purchased from the market. Ask the importance of consuming these. Ask about the recipe preparation on that. Which do people prefer? Demonstrate alternative recipes.

Assignment

Before the group goes home, ask them to choose one (only one) specific action that they will try to implement to diversify their diet. Perhaps adding nuts and oilseeds to kolo (roasted barley, wheat or other legumes) as well as try to include oilseed-based meals in their household such as Sunflower and flax seed juice with injera (*yesuf/yetelba fitfit* etc)

4.7 Month 5: Add animal-sourced foods and dairy to your meals everyday



Key message 5

Add animal-sourced foods such as eggs and meat (60 grams) and dairy foods (300–400 grams) to your meals everyday.

Background to the key message

Why are animal-sourced foods important and how much of them should we eat?

- Animal-sourced foods such as meat, chicken and eggs are very good protein sources for building tissues and growth
- Organ meats such as liver, kidney, and heart are rich sources of iron needed to combat anaemia
- Eggs are very good sources of complete protein and some B vitamins, B vitamins are important for growth and development, and also for supporting your body to function well. B vitamins help you get energy out of the foods that you consume. They also keep your brain healthy and support your body in fighting disease.
- Milk (including goat and camel milk) and cheese are rich sources of calcium needed for bones and teeth

Tips

Adding a small amount of animal-sourced flesh foods to your meal is important

- A small amount of meat added to your stew (e.g. *bozena shiro*) enhances the nutritional benefits of other foods such as beans and peas
- Meat can sometimes have a lot of fat: cut off the fatty parts and remove chicken skin before cooking. Although fat is a source of energy, animal fat is mostly saturated, which is unhealthy for the heart.
- Avoid raw meat consumption. Consuming raw meat may not be safe and can cause foodborne illness. Consume cooked meat instead.
- Drink fermented milk or boiled milk, and avoid drinking un-boiled milk which can contain dangerous bacteria



Figure 19 Drying meat (quanta) is common, and a good way of storing extra meat.

How much should we eat from the meat and egg group?

- The minimum recommended intake of meat and eggs for children 2–18 years old is 3–6 servings per week, rising to 4–9 servings per week for adults aged 19–64 years and 3–6 servings per week for the elderly (65+ years).
- The minimum recommended intake of meat and eggs for intermittent fasting is 0–9 servings per week.



Figure 20 Commonly consumed meat and eggs depicted in grams

Table 12 Minimum recommended servings of meat and eggs per week

	Servings per week			
	2–5 years	6–18 years	19–64 years	+65 years
Non-fasting	3–6	3–6	4–9	3–5
Intermittent Fasting	*	0–9	0–9	0–9
Continuous Fasting	*	0	0	0

**Not applicable*

Commonly consumed meat and eggs depicted in grams

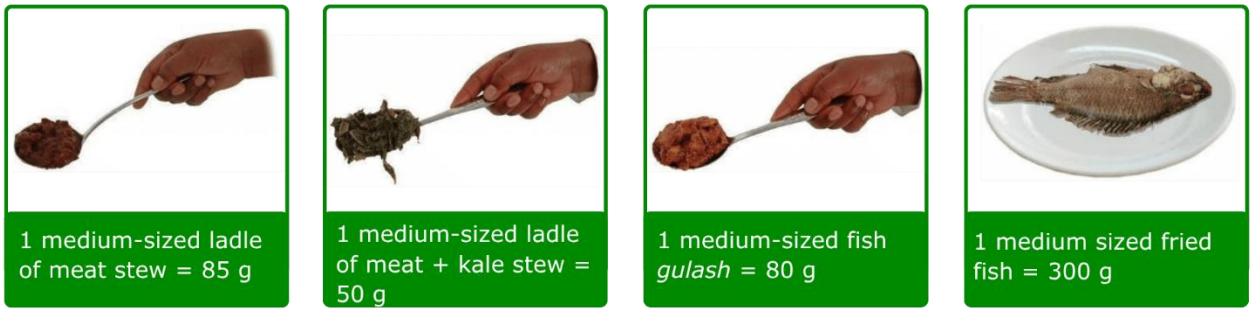


Figure 21 Commonly consumed meat and eggs depicted in grams

How much should we eat from the dairy foods group?

- The minimum recommended intake of dairy foods (such as milk and yoghurt) for young children (2–5 years) is 1 serving per day. This increase to 1–2 servings per day for adolescents (6–18 years), adults (19–64 years) and the elderly (65+ years old).
- The minimum recommended intake of dairy foods for intermittent fasting is 0–2 servings per day.

Table 13 Minimum recommended servings of dairy foods per day

	Servings per week			
	2–5 years	6–18 years	19–64 years	+65 years
Non-fasting	3–6	3–6	4–9	3–5
Intermittent Fasting	*	0–9	0–9	0–9
Continuous Fasting	*	0	0	0

**Not applicable*

Commonly consumed dairy foods depicted in grams

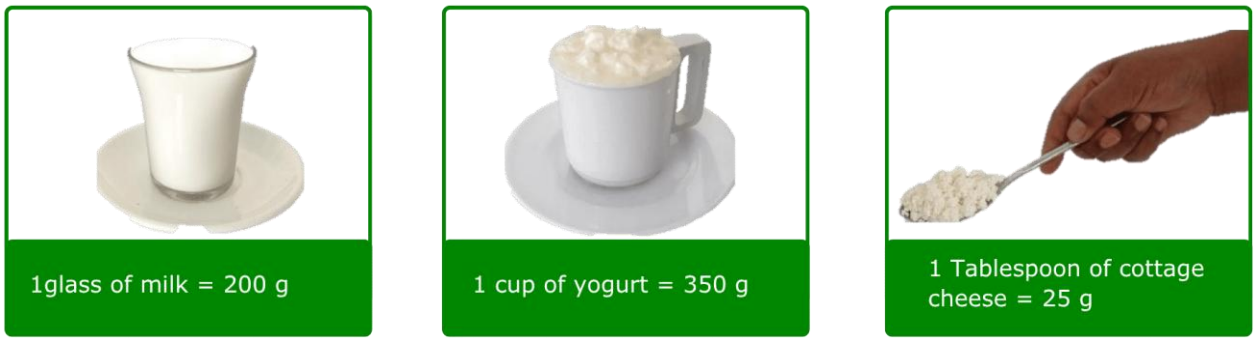


Figure 22 Commonly consumed dairy foods depicted in grams

Target group and messages

Step 1& 2: what are the current gaps, in terms of animal source food consumption? Looking at the formative research, what are the specific foods people are currently not consuming? Animal source foods are a food group that, although widely recognized as healthy, still have a relatively low level of consumption. Given the important role of fasting in the Ethiopian culture, the food-based dietary guidelines are designed to accommodate fasting practices and quantities of animal source foods are adjusted for non-fasting, intermittent fasting, and continuous fasting periods.

Whose behaviour do you want to change? Which group of people?

What barriers do these people face in trying to implement the behaviour (refer to the formative research as well using your own knowledge about this group and the specific challenges they face in implementing the described behaviour? For animal source foods, affordability is often one of the critical challenges people face in trying to access these foods. What are the most affordable sources of animal source foods in Ethiopia? These are some examples, but you can also modify and adjust the objectives and aims, depending on what is most appropriate for your own context:

Step 3: Develop a final set of behaviours and a behaviour change messages and activities. Remember to make this specific both in terms of target group and behaviour!

Table 12: *Illustration of a defined behaviour change goal and its objectives*

Behaviour change goal	Objectives (SMART)	Aim
Target group: In region: Diversify their diets by consuming 60g of animal source foods and 300-400g of dairy each day (non-fasting time)	___% of _____ who participate in the training consume animal source foods regularly during non-fasting time	Target actual behaviour Target the barrier of _____ Target the barrier_____

Activities

Option 1- Who decides what to eat and sell

Adopted from: Social Analysis and Action (SAA) in food and nutrition security programming. Tasew Abinet; Addisalem Berhane; Feteh Demmelash; Mekbib Hilegebrile; Meseret Demissie. Cooperative for Assistance and Relief Everywhere, Inc. (CARE). 2021.

Objectives

- To explore the decision-making power of men and women on what to consume and sell and its consequences on HH food and nutrition security
- To understand how decision-making can negatively/positively affect the household nutrition status

TIME · *45 minutes – 1 hour*

Materials/tool

- Fishbowl
- Flipchart
- Markers
- Tape

When women are not empowered to make more decisions on their own, the household runs less efficiently (they have to wait for another person to make decisions). When one person makes decisions for others, they have a tendency (whether they realize it or not) to act in their own interest. Within the same household, women sometimes have different perspectives, different needs, and different information than men; this information is important for making decisions that benefit everyone in the family. Women also make significant contributions to income, family care and nutrition; they have the right to participate in important decisions.

This tool will help participants understand how decision-making can negatively/positively affect the household nutrition status. Important decisions can be difficult to make. Through the fishbowl exercise, participants will explore what those decisions are, who makes them, and how they are made.

Step 1: Form two circles of chairs to create a "fishbowl." divide participants into men and women groups. The inner circle should contain the men or women the women group who are willing to share their experiences. The other group forms the outer circle and listens to those in the inner circle as they share their experiences. The women/men in the inner circle face one another and speak to one another; they do not physically interact with the outside circle.

Step 2: Establish ground rules with participants at the beginning of the exercise about listening respectfully and maintaining confidentiality.

Step 3: Facilitate the discussion by asking the following questions to the inner circle and once discussion is over, let the groups exchange sits so that the observer's group gets to share their experience sitting in the inner circle

Key questions to ask:

1. How do you manage the harvested crops in your home?
2. How do you manage livestock and poultry?
3. Who manages the main harvested crops/livestock/poultry?
4. What are the responsibilities in managing different crops/livestock/poultry?
5. Who decides for consumption and sale in your home?
6. Do you think that you have decision-making power on the consumption and sales of crops/livestock/poultry? If yes, What is the positive or negative consequence? If not, what do you feel?
7. Do you think that you need more power over making decisions regarding consumption and sales of crops/livestock/poultry? Why? (for the women groups)
8. Do you think that your decision-making role over what to sell and consume represents the family's interest?

Step 4: After each group shares their feelings around the guiding questions, the facilitator asks groups (who were in the outer circle) what they felt about people's experiences shared in the inner circle and whether that inspired a need for some kind of change on how decisions over consumption and sell of harvest and livestock/poultry should be made for better household nutrition.

Option 2:

Role play could provide participants with an opportunity to discuss the challenges linked to the consumption of animal source foods and potential solutions.

Please come up with a scenario that makes sense for your community, and relates to the specific challenges people in your community face in accessing animal source foods. A few potential examples have been added here to provide ideas about what types of scenarios might be appropriate.

Scenario 1: You are a women who recently found out that you are pregnant for the first time. This is your first child, and you heard from the health extension worker that you should make sure to eat enough, especially animal source foods. The most affordable animal source foods in your area are milk and yogurt. However, at the same time, your mother and mother-in-law say that eating these foods will result in a baby with a big head and difficult labour. Whose advice should you follow? If you choose the advice of the health worker, how will you talk about your decision with your mother and mother-in-law?

Scenario 2: You are a mother who knows that it is important to feed her children animal source foods, and you have some money you earn with a small poultry business. However, you also have other costs, for example, school fees and uniforms for the children, that you also know are important. How do you prioritize how to spend your limited income? Are there ways to stretch your budget to allow it to further?

Assignment: one small action

This month, please choose an assignment based on the experiences of your participants so far, and where they have struggled the most in implementing the new guidelines. Such as ask to household to prioritize keeping some animal-source foods for household consumption while balancing the amount sold for income and include them regularly in family meals rather than consuming a large amount on only one occasion. (Poultry farming/ Asset building) leverage point in Mekelle (Enderta woreda).



Poultry farming one of the leverage points to diversify household diets and build assets for farm households in Enderta woreda, Tigray Region

4.8 Month 6: Drink 8–10 large glasses of clean water daily and limit salt below 5 grams per day

Month 6

Key message 6

Drink 8–10 large glasses of clean water daily



Why is water important and how much should we drink?

- To stay healthy, you must drink enough water. We need a minimum of 8–10 large glasses of water daily for:
- Helping with digestion
- Carrying nutrients and oxygen to our cells
- Preventing constipation
- Normalizing blood pressure
- Cushioning joints
- Protecting organs and tissues

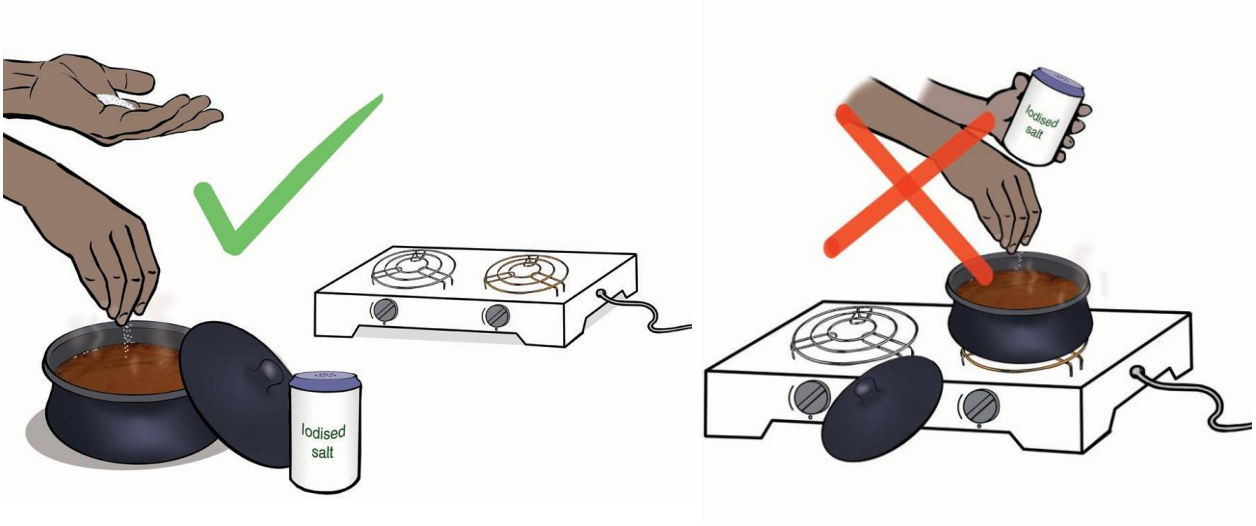
Tips

- Use water containers with covers to store water
- Before fetching water, wash water containers regularly using locally available cleaning materials such as detergents and ash
- Treat your water by boiling or using Water Guard: this makes it safe for drinking

Month 6

Key message 7

Limit salt intake to below 5 grams per day



1 pinch of salt = 2g

Limit salt intake to

- Safeguard yourself from blood pressure by using less than 5 g (just under a teaspoon) of salt per day from all sources
- **Remember!** Some food items such as Ethiopian hot peppers, chilies, and spices have a lot of salt added during processing, thereby counting towards salt consumption with the risk of daily intake rising above WHO recommendations

Tips

- When you process *shiro*, hot pepper and chilies, add only a very small amount of salt
- When preparing your stew, reduce the salt: other ingredients such as hot pepper already have salt
- Use iodized salt
- Do not add salt to coffee
- Limit the consumption of salty snacks (such as packed crackers): it adds to your daily salt intake

Target group

For the last set of messages, it would be good to work with farmers who have already participated in at least some parts of the previous training. We did not carry out our formative research on physical activity, water consumption, or salt consumption. However, since these recommendations are easy to implement, and do not cost money in terms of purchasing inputs, the last month can be used to increase people's awareness of these behaviours.

5 Learning questions, data collection, monitoring, and evaluation process

RAISE-FS aimed to generate evidence to strengthen social behaviour change communication in line with EFBDG. To support this aim, the project set up a number of learning questions. Evidence to answer them was collected through the following sources:

- **Monthly reflection sessions and reports.** Each session recorded the key discussions outputs and began with a reflection on what participants had managed to put into practice and what challenges they faced. Facilitators recorded these points in monthly reports and follow up visit
- **Mid-term evaluation.** This used a prepared checklist and included:
    - focus group discussions (FGDs) with host farmers and implementers
    - observation of households during follow-up sessions
- **Edline evaluation.** This included the endline household survey, key informant interviews (KIIs), FGDs, and observation. The outputs have been finalised and are awaiting scientific journal publication.

5.1 Key learning questions

The key learning questions identified by the project were:

1. Do the Ethiopian food-based dietary guidelines (EFBDG) support increased consumption of more diverse diets?
2. Which messages do people find easiest to implement?
3. Which messages do people find hardest to implement?
4. How did the SBCC approach influence participants' capability, motivation and opportunity to adopt the recommended EFBDG-related behaviours? What factors enabled or constrained behaviour change?
5. Do the activities in the RAISE-FS SBCC manual support the implementation of the EFBDG?
6. What types of training, discussions and opportunities are needed to help translate these messages more effectively at community level?

Table 14 Monthly data collection tool

	Answers	Reflections or observations
Name of region/*woreda*/ *Kebele*		
Date		
Which key message did you focus on?		
Who delivered the message? (DA? HEW? RAISE partner? Other?)		
Which activity did you do/select?		
Number of participants, age and sex (m/f)		
This is about reflecting on the assignment from the last key message (reflect on the previous month) **Reflection session**: what key observations do people make about what was easy/ hard to implement? What is the experience of farmers in implementing the assignment they took		

How did the current activity go?

- What were the challenging issues?
- What key issues were discussed in the group (does not need to be everything that was discussed, just a few key point)

Interesting observations? Did you list anything that you can use in future training?

What assignment did you give for the next month?

Additional activities:

Did you do any additional activities this month? (Examples: placing a poster about the EFBDGs in a public place or a session for school children or other community members?)
What was the additional activity?

Please add some photos of the session.

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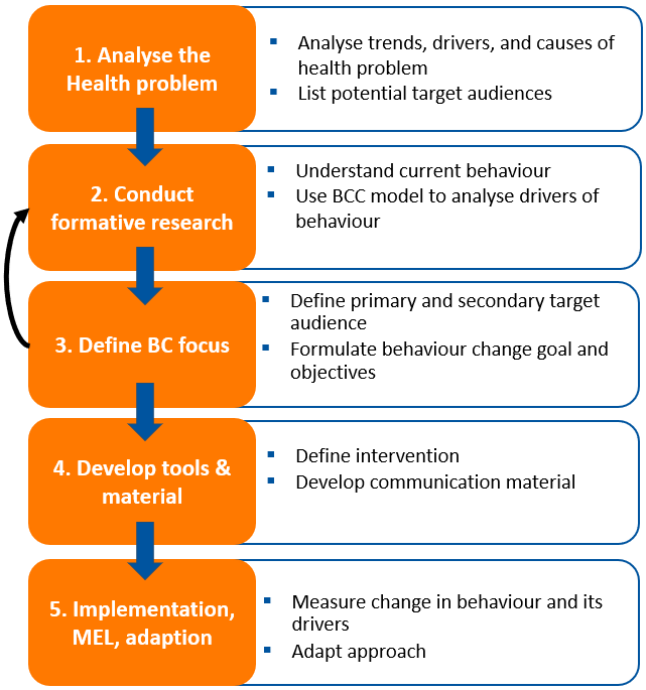
Annex 1

Overview of the principle of BCC

This section describes the steps of research that went into designing the activities in this manual. Behaviour change interventions are needed to support the uptake of the newly designed Ethiopian Food-based dietary guidelines. These principles can also be applied to other nutrition behaviour change interventions.

To design effective behaviour change interventions, it's crucial to ensure they are **contextualized and evidence-based**. This is especially relevant for Ethiopia, where large regional differences exist. Tailoring interventions to local needs, climate variations, and cultural habits is essential for their success. Various resources have been developed to support organizations in designing effective BCC interventions, such as the BCC toolkit developed by Nutrition International (Nutrition International, 2019).. The figure below outlines five steps to develop an effective behavioural change communication strategy.

figure 1: BCC frameworks



Steps to take in designing a behaviour change approach

The following section describes how these general BCC approaches were applied to the RAISE-FS context and used to develop the proposed implementation plan.

Step 1: Analyse the health problem

The initial step in developing a behaviour change intervention is gaining a thorough understanding of the health issue at hand. When the EFBDGs were developed, interventions to promote the adoption of FBDGs were a key starting point. To increase the contextual relevance the dietary patterns in the regions were considered, and key gaps, as well as strengths, were identified. The project used data from the quantitative baseline survey, complemented by qualitative data from the rapid food system appraisal to identify dietary gaps and the socio-demographic groups that are most affected. While a clearly defined target group is crucial to ensure the intervention can be tailored to their specific context and needs, this is challenging within the project as we are seeking to work with a range of rural farming households. Unlike other similar interventions, RAISE-FS seeks to reach all member of a household, and is not focused on pregnant and

lactating women or children under two years. We are especially interested to see what types of messages are successful at improving dietary intake for a broad demographic.

Step 2: Conduct formative research

When selecting general information during the first phase, specific information on the needs of the potential target groups in the context of the intervention area may be lacking. Subsequently, in the second phase, formative research is conducted to better understand the current behaviour of potential target audiences. Formative research is the process of gathering critical insights from target communities and institutions to better understand current behaviours, perceptions, and contextual factors, thus informing the design and development of interventions. In this step, it might be helpful to use a BCC model to support a systematic analysis of the current behaviour and its drivers. The socio-ecological model explained in the previous section can help to define the different levels at which the behaviour is affected. Through qualitative methods such as focus groups or in-depth interviews, drivers related to the individual or environment, such as motivation, beliefs, and perceived barriers, can be assessed.

In RAISE-FS, qualitative data was collected using a methodology in which households drew and described what they perceive as a healthy diet, and what they actually eat, and reflected on the differences between the two. This was complemented by quantitative data collected from approximately 900 households which included details on food insecurity and diet quality.

Step 3: Define behaviour change (BC) focus

In the third step, the final set of desired behaviours is defined, along with the target population. The primary target audience comprises individuals directly affected by the health problem and are the actors to conduct the behaviour. Additionally, focusing on secondary target behaviours within an intervention can be beneficial, involving individuals who influence the behaviour of the primary target group, such as those who control access to necessary resources or possess high credibility in their environment, like mothers controlling access to specific foods for young girls or religious leaders. For further defining the behaviour change (BC) strategy, it is helpful to start with a broad BC goal, describing the long-term effect that the intervention aims to achieve. It is essential to focus on actual behaviour rather than aiming for a change in a specific driver like knowledge, as behaviour is often influenced by multiple factors (so the change will only happen if all relevant barriers are addressed). Behavioural change goals are then divided into specific objectives, which can focus on the actual behaviour itself or on its drivers or barriers. When these objectives are formulated using the SMART (Specific, Measurable, Achievable, Relevant, Time-specific) method, it becomes easier to monitor and evaluate progress and impact. An example of a behaviour change goal and related objectives can be found in table 3,5, 6.. If new information gaps are identified during the process of defining the behavioural change goal, objectives, and target audience, it may be necessary to return to step 2, as indicated by the black arrow in figure 20.

Table 1 Illustration of a defined behaviour change goal and its objectives

Behaviour change goal	Objectives	Aim
Women of reproductive age in rural areas in Amhara increase their consumption of animal-based products according to the FBDGs	80% of WRA in focus villages will consume daily at least one portion of dairy foods (300-400 grams) after year 2.	Target actual behaviour
	75% of secondary schools in the region that have adopted nutrition education in their curriculum to 80% after year 1.	Target the barrier of lack of knowledge and the driver of attitude
	After 1 year, 100 household have started holding poultry.	Target the barrier of availability.

In RAISE-FS, each region will develop specific goals and objectives, depending on the current dietary practices, and gaps, in their region. The overall behaviour change goals will be the same, linked to the

EFBDGs, however the specific aims and objectives many very, depending on the activities implemented in the region (e.g. if we are working on addressing the availability of, for example, fresh fruits and vegetables, through home gardens, or another intervention).

Step 4: Develop tools and materials

Step 4 is dedicated to crafting the intervention itself. Achieving increased adoption of the desired behaviour relies on altering the balance between barriers (e.g. prices, lack of knowledge or skills) and facilitators (e.g. health awareness). For selecting which methods or activities can be deployed to drive behaviour change, inspiration can be found in social market theories (Hastings et al., 2011). According to this theory, the most effective manner to enable behaviour change is by leveraging a mix of different activities targeting the so-called 4Ps (Smith & Strand, 2008). The "product" refers to the behaviour itself, considering any tangible objects that may support it, such as selling nutritious foods in small packages to ensure affordability for lower-income consumers. "Price" encompasses the costs associated with practicing the desired behaviour, which can include monetary expenditures (for ingredients, fuel, etc.), but also aspects like time or effort (for growing, cooking etc) and comfort (energy needed to learn new recipes). It is essential that the benefits outweigh the costs to ensure the adoption of the desired behaviour. “Place” refers to where the consumer performs or considers the desired behaviour. Activities addressing this aspect involve ensuring these locations are accessible and equipped with the necessary resources to facilitate the behaviour. The last P pertains to “Promotion”, ensuring that the target audience is aware of and understand the desired behaviours and their associated benefits. An essential element of promotion involves developing an effective behavioural communication strategy.



Resilient Agriculture for Inclusive and Sustainable Ethiopian Food Systems (RAISE FS)

www.raise-fs.org

Stichting Wageningen Research Ethiopia

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Resilient Agriculture for Inclusive and Sustainable Ethiopian Food Systems (RAISE-FS) is a four-year program funded by the Dutch Embassy in Addis Ababa and hosted by Stichting Wageningen Research Ethiopia based in Addis Ababa, to bring about transformation in the Ethiopian food system. RAISE-FS will develop and implement a demand-driven and interdisciplinary approach to Research for Food System Transformation (R4FST) and as such contribute to the Government of Ethiopia's transformational agenda.

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