A woman with long dark hair is walking away from the camera through a lush green rice field. She is carrying a bundle of rice stalks on her head and a brown paper bag in her right hand. She is wearing a dark blue jacket, a dark skirt, and a colorful, patterned sarong. In the background, there are several houses with blue roofs and palm trees under a cloudy sky.

**BASELINE TOOL ON
NUTRITION AND LOCAL
FOOD PLANTS**



**SOWING DIVERSITY = HARVESTING SECURITY
PHASE II (2019-2022)**

WOMAN IN FIELD IN LAOS BY SACHA DE BOER

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Foreword

This document aims at providing a guideline for the implementation of a baseline survey to capture information on nutrition and local food plants, which corresponds to the work on nutrition of the “Sowing Diversity=Harvesting Security” Program (hereafter, SD=HS). Over time, an endline survey will be implemented as well for comparison and to monitor the effects of the program activities undertaken on the status of nutrition in the communities and on the use of local food plants.

SD=HS is a global program, currently implemented by Oxfam Country Offices and implementing partners in eight countries, namely the National Agricultural and Forestry Research Institute (NAFRI) and Agricultural Research Center (ARC) in Laos, Local Initiatives for Biodiversity, Research and Development (Li Bird) in Nepal, Asociación de Organizaciones de los Cuchumatanes (ASOCUCH) in Guatemala, Participatory Ecological Land Use Management (PELUM) and Eastern and Southern Africa Small Scale Farmers' Forum (ESAFF) in Uganda, Zambia Alliance for Agroecology and Biodiversity (ZAAB) in Zambia, Community Technology Development Trust) in Zambia and Zimbabwe, Fomento de la Vida (FOVIDA) in Peru, and Centre for Chinese Agricultural Policy (CCAP) and the Farmers’ Seed Network (FSN) in China. SD=HS is coordinated by Oxfam Novib. The objectives of the program’s work on nutrition are to improve the diversity and quality of the diet, and to reduce the length and severity of the food scarcity season, by increasing the intake of nutritious food based on local biodiversity and improved management of local food plants (with a special focus on neglected and underutilized species, or NUS).

As the reader will notice, the scope of the work on nutrition and local food plants is potentially very wide. Nutrition is a broad concept and we recognize that not all aspects associated to nutrition are covered in this baseline, with major emphasis given to the diversity of the local diet. Likewise, not all aspects related to local food plants are covered in this baseline, but it highlights knowledge, consumption and importance of local food plants, in particular during the food scarcity period.

This baseline tool is intended to be used before the organization of the training of trainers (ToT) and establishment of farmer field schools (FFS) on Nutrition and Local Food Plants. For more information on the ToT and FFS, please see the FFS on Nutrition and Local Food Plants Field Guide, which can be accessed in this link: <https://bit.ly/3I4Rxu0>.

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Acronyms

FFS	Farmer Field School
NUS	Neglected and Underutilized Species
SD=HS	Sowing Diversity = Harvesting Security
ToT	Training of Trainers

1. General context

Two common ways in which food insecurity manifests itself in rural communities are low quality and low nutritional value of food consumed, and seasonally occurring food scarcity. Micronutrient deficiency ('hidden hunger') – which is largely related to the former issue – is a major problem in the developing world¹. For example, about one-third of children from low- and middle-income families in Sub-Saharan Africa and South Asia show deficiencies in vitamin A.² Policy makers and development organizations have largely ignored seasonal hunger as a component of rural deprivation³.

Local food plant diversity can contribute to reducing and even ending seasonal hunger or food scarcity periods by providing additional food sources and adding nutritional value to the diet of men, women and children. Fortunately, many communities still possess local knowledge of minor crops and semi-wild and wild plants that can help to diversify sources of nutrients for the household and fill the gap caused by lack of food from staple crops during periods of seasonal food scarcity. In this context, it has been reported that mainly women keep the knowledge to identify, gather and process wild food plants and to cultivate minor crops. In order to ensure food and nutrition security, it is necessary to encourage farmers to take a closer look into the multiple links between local food plants, nutrition and gender. This will also contribute to the empowerment of women and to promote the conservation of a wide diversity of plant genetic resources in the community environment.

Local food plants are plants known and (under)utilized by local communities as food. Local food plants include a wide range of species, ranging from domesticates (staples and minor crops), to semi-domesticated species and wild food plants. Local food plants not only grow in agricultural fields (where they can grow e.g. as side crops or weeds), but also in multiple environments such as home gardens, roadsides, aquatic ecosystems and forests. The diversity of local food plants plays a key role in diversifying the diet and the consumption of a wide array of nutrients for rural households. Extensive knowledge of local food plants is held by indigenous peoples and smallholder farmers, and is to a large extent related to the biodiversity of their surrounding environments. Neglected and underutilized species (NUS) form a key component of local food plants.

A more detailed explanation of the concepts of nutrition and local food plants, including a gender perspective, is presented in SD=HS' FFS Field Guide on Nutrition and Local Food Plants (<https://bit.ly/3l4Rxu0>).

¹ FAO, IFAD, and WFP, 2014. *The State of Food Insecurity in the World. Strengthening the enabling environment for food security and nutrition*. Rome: FAO. Available at: <http://www.fao.org/3/a-i4030e.pdf>

² https://www.unicef.org/nutrition/index_iodine.html

³ Devereux, S., B. Vaitla and S. Swan, 2008. *Seasons of Hunger: Fighting Cycles of Starvation Among the World's Rural Poor*. London: Pluto Press. Available at: <http://www.jstor.org/stable/j.ctt183q3rs>.

2. Introduction

This document explains all the steps needed for the implementation of the baseline for SD=HS' work on nutrition and local food plants. The Pillar objective is *to strengthen coping strategies of communities by increasing the intake of nutritious food based on local biodiversity and improved management of local food plants, particularly NUS.*

The objectives of the baseline are the following:

- a) To establish the local and regional agro-ecological context in the communities where the FFS on Nutrition and Local Food Plants will be implemented.
- b) To inform and guide the ToTs on Nutrition and Local Food Plants and the development of a country-specific FFS curriculum.
- c) To inform FFS participants on the nutritional situation in their communities, and the potential role of local food plants to improve the nutritional status based on the assessment of local knowledge.
- d) To mark the situation at the beginning of the project, including values for the program indicators, as the basis to assess the impact of the project when comparing to the household endline results.
- e) To provide evidence to be used for policy advocacy and broader stakeholder involvement.

The process of preparation of the baseline tool started in the General Methodological Workshop that took place in May 2019 in the Hague, with the participation of country partners who discussed and provided their thoughts. Then the draft tool was developed by Oxfam Novib and circulated among partners for their revision and feedback. Finally, their revisions and feedback were incorporated into this tool, as well as guidelines for data analysis, to allow global comparability of results and program-wide analysis.

The baseline for has two main components:

1. A household baseline. The main units of analysis are households. The household baseline contains a household and dietary survey.
2. A local food plant baseline. The main units of analysis are the local food plant species. Although NUS is a major focus of SD=HS work, we will capture all local food plant species – not being staple crops - that are part of the diet of the community. The local food plant baseline consists of lists of local food plants (obtained from household surveys), their taxonomical identification and classification with community expert consultation in collaboration with botanical centers or universities (i.e. for taxonomical identification), and the identification of their nutritional value (i.e. mainly from literature and in collaboration with nutrition centres). After establishing the local food plant baseline we shall know – for the most important set of species for the community – what their contribution to the distinct food groups is, what their nutritional value is (and how it might contribute to address local nutritional deficiencies), and which role these local food plants may fulfil during the food scarcity period.

Figure 1 illustrates the flow of information within the baseline, and from the baseline to FFS and other activities related to nutrition and local food plants. The data of the household and local food plant baselines will be entered in Excel matrixes and analyzed in a way that allows comparisons and conclusions at local, national and global level. The results will be presented in a baseline report, and a cross-country analysis will be conducted to answer the SD=HS research question: *Are households that consume more local food plants less prone to suffer from food scarcity, lower dietary diversity and quality?* The answer will be evaluated in relation to gender (e.g. head of household, decision making) and youth (age). As part of this research question, we shall also explore if local food plants play a major role as part of the coping strategies used during times of food scarcity of most vulnerable households (e.g. vulnerability associated to presence of chronically ill household members, high dependency ratio, presence of women with child-bearing age).

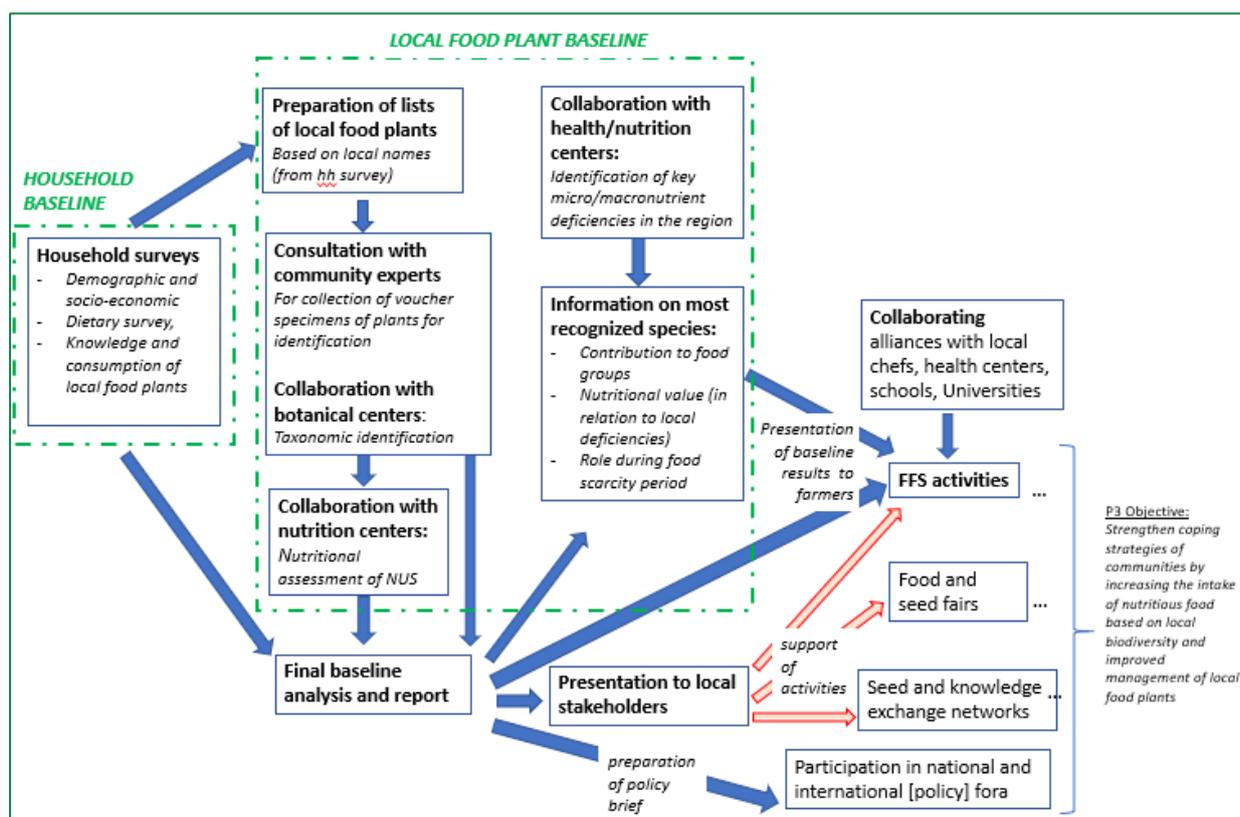


Figure 1. Flow of information within the baseline, and from the baseline to FFS and other activities on nutrition and local food plants.

Further analysis will be conducted at the end of the SD=HS Program to answer a second SD=HS research question: *Did farmers who participated in FFS increase their consumption of local food plants, have more diverse and quality diets, and reduced food scarcity?* For that purpose, household baseline and endline data will be compared as part of the impact assessment, after the implementation of various FFS cycles. Likewise, the comparison between baseline and endline will be used for determining the final values of the indicators (Table 1) listed in the outcome framework (Appendix 1).

The main results produced after the data analysis (i.e. answering the first research question) will be presented to local stakeholders to ensure their involvement and collaboration in the activities of the program related to nutrition and local food plants. These results will also be used for policy advocacy, i.e. presented in national and international policy fora.

Table 1. General overview of the data that will be collected during the dual baseline, their role in providing the information necessary for the calculation of the SD=HS indicators, and the information that will be used for answering the research questions.

	Tools	Types of variables	To capture in both seasons	Calculation of outcome indicators ¹
Household baseline	Household and dietary survey	Demographic and socio-economic variables		1,4
		Dietary diversity (Household Dietary Diversity Score, HDDS)	x	3,4
		Severity of food insecurity (Household Food Insecurity Access Scale, HFIAS)	x	3,4
		Length of food scarcity season (Months of Adequate Household Food Provisioning, MAHFP)		2,3,4
		Local food plant acquisition	x	2,3,4
		Knowledge of local food plants (freelistings)		2,3,4
Local food plant baseline	Taxonomical identification of local food plants, with community expert consultation	Scientific and vernacular names of local food plants		3,4,5,13, 15
	Desk research on nutritional value of local food plants	Nutritional value of local food plants (including their role to tackle major regional nutritional problems)		3,4,5,13, 15

¹ Please find the indicator corresponding to each number in the outcome framework table (Appendix 1).

Finally, the results of the baseline report and the information on the nutritional contribution of key local food plant species to the diet of the communities will guide the ToT, inform FFS curriculum development and will be shared with all FFS participants.

Based on the country outputs of the household and local food plant baselines, a global technical report (cross-country comparative) and a publication (e.g. policy brief) will be prepared presenting answers to the first research question, including relevant results for policy advocacy at global and country levels. Country partner organizations are also encouraged, where possible, to prepare a briefing note with the main results of the baseline.

This document explains below the implementation of the household and local food plant baselines, including main requirements, modules, outputs and includes a guidance for data analysis.

3. Household baseline

3.1. Human resource requirements

The application of the household baseline or household survey questionnaire (Appendix 2) will preferably involve a team of enumerators with experience in conducting household interviews. It is recommended that it will be conducted by staff of the partner organization and/or future FFS trainers, so they will have a first-hand general overview of the community situation in relation to local food plants and household diets. This first-hand knowledge of the community situation will be very valuable during the ToTs and implementation of FFS activities. It will also be very useful for the interpretation of the data when analyzed (to explain why did we get some results). Finally, such experience will certainly help to build rapport and trust in the communities where the FFS activities will take place. Therefore it is strongly recommended to not outsource data collection to consultants.

3.2. Ethical requirements

Prior informed consent has to be obtained from household heads to use the data that will be collected for the purposes of the baseline study. This consent also has to protect communities since they will know that the data will only be shared with third parties if fully anonymized.

Please treat with confidentiality the results of the survey; please do not share it with persons that do not participate in the program since it might include the names of the interviewees (or other characteristics that may make them identifiable) and other information that could be confidential and/or sensitive.

3.3. Community and household sampling

If financial resources do not allow to conduct the household baseline in all communities where FFS activities will take place (the ideal situation), the household survey must be conducted in a representative sample of communities. The communities must be selected in such a way to have at least one community representing each agro-ecosystem and ethnic group in the project region.

In each selected community, a random household sampling⁴ will take place to ensure statistical representativeness. This is normally equivalent to 30% of all households living in the community. For villages with 30 to 100 households, use a sample of 30 households; for villages with 30 or less households, interview all of them. Households that have been living for less than one year in the community, or households that are not engaged in farming should be excluded from the sample

⁴ According to the UNICEF's Multiple Indicator Survey Handbook "Simple random sampling is the simplest form of probability sampling. Random numbers are chosen using a calculator, a computer program or a random number table. Alternatively, the names or identification numbers of all communities, households or individuals could be written on pieces of paper and the desired sample could be selected by picking the required number of papers. Each community, person or household corresponding to the numbers chosen is then included in the sample. In simple random sampling, the selection of one individual is independent of the selection of another individual." <https://mics.unicef.org/files?job=W1siZiIsIjIwMTUvMDQvMDMvMDYvNDIvNDg/Mjg2L2NoYXAwNC5wZGYiXV0&sha=d31cdb905d60500d>

(and will be replaced by other randomly selected households where appropriate). The statistical representativeness will allow to generalize the results of the survey to the whole community.

Household surveys will allow to monitor quantifiable changes at household level when baseline and endline surveys will later be compared. Therefore, it is crucial to apply the same sampling strategy across communities, regions and countries, to ensure an adequate impact and monitoring evaluation, as well as cross-country comparisons that provide solid evidence on the importance of local food plants for diets.

3.4. Seasonality

Most of the household survey questions will only be asked once to families. However, there are three modules (24 hour recall on food consumption, local food plant acquisition and severity of food insecurity) where data is necessary from both seasons (**food scarcity season and affluent season**). For that, all interviewed households will be revisited in the next season for completing the data.

3.5. Pilot test

Before enumerators start field data collection, a training should take place for them to understand the concepts, modules and questions of the household survey, as well as to coordinate data entry between them. As part of the training of enumerators, a pilot test should also take place in a community that does not necessarily have to take part in the FFS activities. This pilot test is important in order to ensure that enumerators fully understand the survey, and to answer any questions or doubts they may have regarding the questions.

3.6. Outputs from the household baseline

- 1) A **database in Excel with the results of the household survey per community**, for each country will be established. This will have to incorporate the values, per surveyed household, of each variable or indicator that will be calculated, allowing the data analysis explained below. Appendix 3 presents an example of an Excel matrix to be filled in per community with the main results of the household survey questionnaire.
- 2) A **country baseline report** presenting quantitative analysis and qualitative information that explain the major findings of the household survey questionnaire. The report will include the following:
 - A general description of the project sites: ethnic groups, number of inhabitants, levels of undernutrition, stunting, wasting, underweight, anemia (or other major nutritional problems), agroecosystems, main productive activities, major crops, altitude, annual rainfall, annual temperature, main seasons
 - Methodology: explaining how many households were sampled per community in relation to the total population of the community, and a map with the location of the sampled communities

- Survey results: with tables or graphs comparing the results of the different communities for each variable or indicator explained below (for each module of the household survey). Quantitative results (e.g. tables and graphs) should be accompanied by the qualitative interpretation of the results (what can we notice from the tables or graphs).
- Conclusions and recommendations: indicating the main conclusions of the household survey, highlighting the results that have to be taken into account when conducting the FFS, for policy advocacy and stakeholder involvement.

3.7. Modules of the household survey: rationale and data analysis

The household questionnaire (Appendix 2) has to be translated into the local language. The modules of the questionnaire have been ordered from less to more sensitive. Country partner organizations have the flexibility to add modules specific to their local contexts.

Below, the rationale and explanation of each module are presented, as well as recommendations on which variables or indicators can be calculated based on the questions. For a good understanding of the survey it is recommended to read the explanation of each module (below) together with the questionnaire.

3.7.1. Basic demographic and socio-economic information

This module will collect data that will allow the calculation of variables related to youth and gender, and household vulnerability, among others. It will also give a general indication of the main productive activities of the household. The analysis will take into account the following variables per household:

- Household size
- Number of children
- Sex of household head (also indicate if this is a child-headed household)
- Main occupation of household head
- Age of household head and spouse
- Highest level of formal school completed of household head and spouse
- Literacy of household head and spouse
- Presence of chronically ill household members (yes/no)
- Presence of household members that have migrated to another community or city (permanently/ seasonally /no migration)
- Number of household members that have migrated to another community or city (permanently/ seasonally /no migration)
- Presence of orphan children (yes/no)
- Presence of women with child-bearing age (15 to 49 years old) (yes/no)
- Dependency ratio, which is the number of children and elderly in relation to the number of working age adults including and excluding migrants, according to these formulas adjusted from the 'World Population Ageing 1950-2050' report of the United Nations (2001):

- Total dependency ratio including migrants = $\frac{\text{number of children + elderly} \times 100}{\text{number of adults including migrants}}$
- Total dependency ratio excluding migrants = $\frac{\text{number of children + elderly} \times 100}{\text{number of adults excluding migrants}}$

The higher the ratio, the higher the burden on the working age adults to maintain the children and elderly, who are assumed to be economically dependent on them. It is important to remark here that chronically ill working age adults should not be subtracted to calculate dependency ratios (presence of chronic illness is analyzed separately).

- Main productive activities of the household
- Does the household have a farm (indicate land ownership)
- Land size (area)
- Number of crops and crop varieties grown in the past 12 months
- Main crops and purposes of each one (separate table)
- Who decides what to do with the income from the main productive activities (indicate sex of the person)
- Presence of income from non-farming sources (yes/no)
- Who decides what to do with the income from the outside farm activities (indicate sex of the person)
- Does the household have a home garden? (yes/no)

3.7.2. 24-hour recall on food consumption

This module aims at assessing household dietary diversity and quality. This module was extracted from the “Guidelines for measuring household and individual dietary diversity” prepared by the FAO <http://www.fao.org/3/a-i1983e.pdf>, which has been standardized for world-wide application. For this exercise, 16 food groups have been selected to facilitate the calculation of various indexes related to dietary diversity and quality (not only the ones described here, but also others that local nutritionists might require). The results will be used for the calculation of the Household Dietary Diversity Score (HDDS). Additional household-level dietary indexes could also be calculated from this data, including the Micronutrient Sensitive HDDS (MsHDDS), the Food Variety Score (FVS), and the Dietary Species Richness (DSR).

This module has to be used in both seasons, given that the dietary diversity might change in relation to the food items available in each season (scarcity and abundance).

To facilitate the work of enumerators, it is necessary to adjust the following table (which was extracted from the FAO document) in order to include examples per food group that are locally known. This has to be done before the training of enumerators, preferably with the collaboration of a local nutritionist.

Table 2. Examples of food items for each food group

Food group number	Food group	Examples
1	CEREALS	corn/maize, rice, wheat, sorghum, millet or any other grains or foods made from these (e.g. bread, noodles, porridge or other grain products) + <i>insert local foods e.g. ugali, nshima, porridge or paste</i>
2	WHITE ROOTS AND TUBERS	white potatoes, white yam, white cassava, or other foods made from roots
3	VITAMIN A RICH VEGETABLES AND TUBERS	pumpkin, carrot, squash, or sweet potato that are orange inside + <i>other locally available vitamin A rich vegetables (e.g. red sweet pepper)</i>
4	DARK GREEN LEAFY VEGETABLES	dark green leafy vegetables, including wild forms + <i>locally available vitamin A rich leaves such as amaranth, cassava leaves, kale, spinach</i>
5	OTHER VEGETABLES	other vegetables (e.g. tomato, onion, eggplant) + <i>other locally available vegetables</i>
6	VITAMIN A RICH FRUITS	ripe mango, cantaloupe, apricot (fresh or dried), ripe papaya, dried peach, and 100% fruit juice made from these + <i>other locally available vitamin A rich fruits</i>
7	OTHER FRUITS	other fruits, including wild fruits and 100% fruit juice made from these
8	ORGAN MEAT	liver, kidney, heart or other organ meats or blood-based foods
9	FLESH MEATS	beef, pork, lamb, goat, rabbit, game, chicken, duck, other birds, insects
10	EGGS	eggs from chicken, duck, guinea fowl or any other egg
11	FISH AND SEAFOOD	fresh or dried fish or shellfish
12	LEGUMES, NUTS AND SEEDS	dried beans, dried peas, lentils, nuts, seeds or foods made from these (eg. hummus, peanut butter)
13	MILK AND MILK PRODUCTS	milk, cheese, yogurt or other milk products
14	OILS AND FATS	oil, fats or butter added to food or used for cooking
15	SWEETS	sugar, honey, sweetened soda or sweetened juice drinks, sugary foods such as chocolates, candies, cookies and cakes
16	SPICES, CONDIMENTS, BEVERAGES	spices (black pepper, salt), condiments (soy sauce, hot sauce), coffee, tea, alcoholic beverages)

Calculation of the Household Dietary Diversity Score (HDDS):

This calculation of the HDDS is based on 12 food groups and summarizes the dietary diversity per household in a single indicator (as a proxy of food access). Therefore, before calculating the score, it is necessary to aggregate the 16 food groups into 12 as indicated in Table 3. Each food group will be assigned a 'yes' or 'no', where 'yes' indicates that the food group was present in the diet of the

household (i.e. the 24 hour recall includes one or more food items corresponding to this food group).

Table 3 Aggregation of food groups from the questionnaire to create HDDS

Question number(s)	Food group
1	Cereals
2	White tubers and roots
3,4,5	Vegetables ¹
6,7	Fruits ²
8,9	Meat ³
10	Eggs
11	Fish and other seafood
12	Legumes, nuts and seeds
13	Milk and milk products
14	Oils and fats
15	Sweets
16	Spices, condiments and beverages

¹ The vegetable food group is a combination of vitamin A rich vegetables and tubers, dark green leafy vegetables and other vegetables.

² The fruit group is a combination of vitamin A rich fruits and other fruits.

³ The meat group is a combination of organ meat and flesh meat.

The analysis of the 24 hour recall to obtain the household HDDS is conducted according to the instructions in the “Guidelines for measuring household and individual dietary diversity” prepared by the FAO <http://www.fao.org/3/a-i1983e.pdf>. The calculation of the HDDS is very simple: each household is given a value from 0 to 12, depending on the number of food groups consumed. Therefore, the value of this variable will range from 0 to 12.

Calculation of the Micronutrient Sensitive HDDS (MsHDDS)

The calculation of the MsHDDS was created by IFPRI and aims at understanding the micronutrient availability of households. It is based on 16 food groups, which have to be re-organized from the 16 food groups included in the household survey. The food groups included in the MsHDDS are:

1. Cereals
2. Roots and tubers
3. Pulses/legumes and nuts
4. Dark green leafy vegetables
5. Vitamin A-rich (red, orange, yellow) vegetables
6. Other vegetables
7. Vitamin A-rich fruits
8. Other fruits
9. Red meat
10. White meat (mainly poultry)
11. Fish and seafood

12. Eggs
13. Milk and dairy products
14. Oil and fats
15. Sugar, honey and sweets
16. Miscellaneous, including condiments

The analysis of the 24 hour recall to obtain the household MsHDDS is very simple: each household is given a value from 0 to 16, depending on the number of food groups consumed. Therefore, the value of this variable will range from 0 to 16.

Calculation of the Food Variety Score (FVS) for all food items

Dietary Species Richness (DSR) is a measure for the abundance and diversity of food items consumed. It is calculated as the count of all food items consumed per household as reported in the 24 hour recall. The calculation is done within each food group for the 12 food groups of the HDDS (e.g. number of different types of vegetables consumed, number of different types of fruits consumed, etc.); and in total (sum of all food items across food groups). When there were no food items in a food group, this has to be indicated with a zero.

Calculation of the Dietary Species Richness (DSR) for local food plants

A specific DSR is also calculated for local food plants as the count of all local food plants consumed per household as reported in the 24 hour recall. The calculation is done within each food group for the 12 food groups of the HDDS (e.g. number of different local food plants consumed as vegetables, number of local food plants consumed as fruits, etc.); and in total (sum of all local food plants across food groups). When there were no local food plants in a food group, it has to be indicated with a zero.

3.7.3. Local food plant acquisition

This module aims at assessing plant acquisition and use. The general objective of this module is to have a general impression of consumption of local food plants before FFS activities take place (to monitor increased consumption after implementation of FFS activities). An additional objective of this module is to better understand the acquisition of local food plants and gender related roles. For instance, the sources and environments from where plants are brought home, and who brings them home. The recall period (last 7 days) is longer than the previous exercise in order to better capture the diversity of food plants consumed during the season (i.e. species that are not consumed on a daily basis might not be captured using a 24 hour recall). Conversely, an even longer recall period would make it too difficult for respondents to remember.

This module has to be used in both food scarcity and affluent seasons, given that the availability of local food plants might be different per season. For instance, some species only grow during the affluent season so will be captured by the 7-day recall that will be conducted during this season; whereas other local food plants might only be available during the food scarcity season so will only

be captured by the 7-day recall that will be conducted during times of scarcity; finally, some plants might be available all year round and may be listed in both seasons.

The results may be analyzed per species, and using household-level variables such as the percentage of plants bought in the market, harvested or gathered from the wild, and the percentage of plants acquired by women/men (which could be related to the place they were acquired).

3.7.4. Freelistings of local food plants

This module aims at calculating in a simple way an approximation of local food plant knowledge before FFS activities take place (future knowledge acquisition through FFS participation will be the first step towards increased consumption of local food plants). Given that knowledge is intrinsically related to gender, it will be necessary to ask the question to both the head of household and his/her spouse separately. General household-level variables that will be created from this module will be:

- Number of local food plants listed by adult men
- Number of local food plants listed by adult women

In addition, the results of this module will be used as a basis to prepare the list of most known species in the community. For that, a simple way to analyze the data⁵ is to identify the plants that have been most frequently mentioned across informant men's and women's lists. The list of most known species will be analyzed in the plant baseline.

Finally, the species that are more widely used among households during the food scarcity season will be identified using the traffic light exercise⁶, in order to ensure that these will also be included in the list that will be used for the local food plant baseline. For that, once a plant list is completed, the enumerator will ask to give a color to each plant in relation to the period when it is consumed:

- Green light: an affluent period, or when food may not be plentiful but generally is available to the community in adequate quantity and quality.
- Amber light: a problematic situation, when food reserves are alarmingly low.
- Red light: a situation in which the food supply is depleted and which requires emergency measures.

It is recommended that country partners prepare a matrix with the list of all local food plants listed (each row another plant), indicating their order of mention in informant's lists and traffic light results as separate columns (Table 4). It is important that partners look for typos and synonyms in the raw data (comparing local plant names given by different informants) before preparing the

⁵ Another way to analyze men's and women's lists is by combining frequency and order of mention in a single index for each plant species (in this case, it is very important to write down the local food plants keeping their order of mention in each questionnaire). This will provide a list of local food plants representative of the knowledge that is shared by community members. For a detailed explanation of the index see: Sutrop, 2001. *List Task and a Cognitive Salience Index*. *Field Methods* 13: 263. Available at: <https://journals.sagepub.com/doi/10.1177/1525822X0101300303>.

⁶ More on the traffic light exercise can be found in: Ocho et al., 2012. *Assessing the levels of food shortage using the traffic light metaphor by analyzing the gathering and consumption of wild food plants, crop parts and crop residues in Konso, Ethiopia*. *Journal of Ethnobiology and Ethnomedicine* 8: 30. Available at: <https://link.springer.com/article/10.1186/1746-4269-8-30>

matrix, ensuring that there is only one way of writing each local plant name per community to avoid double counting of species when conducting the analysis.

Table 4. Example of matrix with results of the freelisting exercise conducted with women (one separate matrix for men and women)

Name of local food plant	Household 1 - woman	Household 1 - woman	Household 2 - woman	Household 2 - woman	Household 3 - woman	Household 3 - woman	...
	Order of mention	Traffic light	Order of mention	Traffic light	Order of mention	Traffic light	
Plant 1	1	green	3	green	6	Red	
Plant 2	2	green	2	green	4	Green	
Plant 3	3	green	1	amber	5	Amber	
Plant 4	4	amber			1	Green	
Plant 5	5	amber			2	Red	
Plant 6	6	red	4	Red			
Plant 7	7	red	5	Red	3	Amber	
...							

Notes:

- Household 1, 2 and 3 are codes assigned to different households.
- Order of mention of local food plants refers to an informant list. For example, the column “household 1 – woman, order of mention” indicates the order of mention of the local food plants in the list of the adult woman from household number 1.
- The empty cells indicate that the plant was not mentioned by the informant.

3.7.5. Severity of food insecurity

This module was extracted from the “Household Food Insecurity Scale (HFIAS) for the Measurement of Household Food Access: Indicator Guide” prepared by the Food and Nutrition Technical Assistance Project (FANTA) http://www.fao.org/fileadmin/user_upload/eufao-fsi4dm/doc-training/hfias.pdf. The HFIAS is an index that captures severity of food insecurity that has been extensively used and with questions that allow applicability in different countries and contexts. From this data it is also possible to calculate the Household Hunger Scale (HHS).

This module has to be asked in both affluence and scarcity seasons, to capture how food insecurity varies in the food scarcity season and affluent season (different food items will be available in each season).

Calculation of the Household Food Insecurity Access Scale (HFIAS)

The calculation of the HFIAS (Household Food Insecurity Access Scale Score) is explained in pages 18-19 of the manual “Household Food Insecurity Scale (HFIAS) for the Measurement of Household Food Access: Indicator Guide” (see section 5.3. Household Food Insecurity Access Scale Score):

http://www.fao.org/fileadmin/user_upload/eufao-fsi4dm/doc-training/hfias.pdf

The HFIAS score given to a household ranges from 0 to 27. The higher the score, the more food insecurity (access to food) the household experienced. The lower the score, the less food insecurity (access to food) a household experienced.

Calculation of the Household Hunger Scale (HHS)

The HHS is based on the last three questions of the HFIAS. The calculation of the HHS is explained in pages 12 and 13 of the manual “Household Hunger Scale: Indicator Definition and Measurement Guide”:

<https://www.fantaproject.org/sites/default/files/resources/HHS-Indicator-Guide-Aug2011.pdf>

The HHS score given to a household is between 0 and 6. These values are then used to generate the HHS categorical indicators below:

- 0-1: little hunger
- 2-3: moderate hunger
- 4-6: severe hunger

3.7.6. Length of food scarcity season

This question was extracted from the “Months of Adequate Household Food Provisioning (MAHFP) for Measurement of Household Food Access: Indicator Guide” prepared by the Food and Nutrition Technical Assistance Project (FANTA), which has been standardized for world-wide application.

https://www.fantaproject.org/sites/default/files/resources/MAHFP_June_2010_ENGLISH_v4.pdf

If it is difficult for respondents to think in terms of months, a seasonal calendar could be used to help respondents remember when the different months take place. The seasonal calendar should be prepared locally, based on traditional knowledge prior administration of the household questionnaire.

The household-level variable will be:

- The number of months a household is food insecure (months corresponding to the food scarcity season).

In addition, the months corresponding to the food scarcity season in the community will be defined based on most frequent household responses.

Finally, this module will capture any additional local food plants used in times of food scarcity (complementing the results from the freelisting exercise), any crop parts that are not used for human consumption under normal conditions, and crop residues used in times of food scarcity. The

traffic light exercise (explained in 3.7.4) will also be conducted for each of these three food categories.

3.7.7. Sources of information

This short module is to capture the current and preferred sources of information for the community household on health, sanitation and nutrition, to help design strategies to communicate with farmers using the preferred channels. The following variables will be included in the database:

- What are the current sources of health, hygiene and nutrition information for the community household?
- From the above which are your preferred sources of information?
- Why?

4. Local food plant baseline

The local food plant baseline survey will be conducted based on the list of most known local food plants and plants used in times of food scarcity that have been prepared based on the results of the household survey described above. Given that each community will establish their own list of local food plants (although overlaps between communities in the same areas will occur), the local food plant baseline survey has to be conducted in each community.

It is recommended to limit the list to 25-30 local food plants per community seen as most important for improving nutrition and coping with the scarcity period, to make it workable.

4.1. Human resource requirements

As in the household survey, it is recommended that the establishment of the local food plant baseline is led by staff from partner organizations, so they will get a detailed overview of local food plants, which is highly useful for the coordination of the ToT and FFS activities.

The development of this baseline may require collaboration with other stakeholders: e.g. botanists/taxonomists from a local university/herbarium (for the botanical identification of some of the local food plant species), and local nutritionists who may provide information on the nutritional components of local food plant species, and on the main nutritional problems in the region.

4.2. Ethical requirements

No ethical requirements are specified, unless the collection of herbarium specimens is needed for the botanical identification of some species and the country has strict guidelines for specimen collection in non-protected areas.

4.3. Seasonality

The local food plant baseline will only be conducted once. However, it might be necessary to return to the community for taxonomical identification of species that were not available in the season when the plant baseline was conducted.

4.4. Outputs from the local food plant baseline

- 1) A **database in Excel of the most valued local food plants per community**, including their taxonomical and botanical characteristics, nutritional value, contribution to food groups, their potential contribution to address local nutritional deficiencies, and their role during the food scarcity period. Appendix 4 presents an example of an Excel matrix to be filled in per community with the main results of the local food plant baseline.
- 2) A **country baseline report**, that describes the findings of the local food plant listing process, and the associated process of botanical identification (where needed), as well as the main

results reflected by the local food plant database. The report will highlight a maximum of 25-30 local food plants, which are these with high nutritional value, that may contribute to address local nutritional deficiencies, that may contribute to food groups under-represented in the local diet, or that may play a key role during the food scarcity period. It will also include photographs of these local food plants, and the nutritional composition of the local food plants included in the database. This report could be the second part of the nutrition baseline report, complementing the household baseline report (both included in a single country report).

4.5. Components of the local food plant baseline

The components of the local food plant baseline are the following:

4.5.1. Taxonomic identification of local food plants

The taxonomic identification of the local food plants may need expert consultation and collaboration with botanical centres or universities (for taxonomical identification). Local food plant specimens may be stored in the local Herbarium awaiting taxonomic identification with the support of local taxonomists, when needed. As an alternative local taxonomists/botanists may join collecting missions in the field to identify the species. In addition, photographs of local food plants may be made in the field (of the plant and its reproductive and edible parts) to assist identification if needed.

Although the local vernacular names could be similar between communities, it is important that the collection and identification is repeated per community, because the same local names could refer to different species when changing location (or ethnic group), or alternatively the same species may be given different names. Additional information on their growth form and life cycle (annual or perennial) may be retrieved from literature or from a taxonomist/botanist, in case not known; and in case of doubt information on the food group they belong to will be obtained in consultation with a local nutritionist. Additional information on their edible part(s) will be obtained from consultation with community experts, during the collection missions.

A matrix will be created including the following information per species:

- Plant vernacular name (written using local alphabet scripts)
- English transliteration of local name (transliteration is the process of transferring a word from the alphabet of one language to another)
- English name (if it exists)
- Scientific name (identified by local taxonomist)
- Growth form (1=tree 2=aquatic herb 3=terrestrial herb 4=climber 5=shrub 6=rattan 7=bamboo 8=other (please specify))
- Life cycle (1=annual, 2=perennial)
- Edible parts (1= roots/tubers 2= stem 3= leaves 4= flower 5= fruits, 6=shoots, 7=seed, 8=stalk of flower, 9=whole aerial parts 10=other (please specify))

Country partners may add additional variables that they consider important and complementary.

4.5.2. Identification of the nutritional value of local food plants

The identification of the nutritional value of each local food plant can be based on a literature review using the scientific names of the species and in collaboration with nutrition centres. Literature includes national and regional food composition tables (e.g. <http://www.fao.org/infoods/infoods/en/>), regional databases (e.g. PROTA for Africa <https://www.prota4u.org/> and PROSEA for Asia <http://proseanet.org/prosea/>), peer-reviewed scientific papers, among others. It should be stressed that nutritional value can vary considerably within the botanical species and between collecting sites, which means that literature data form rather an indication than a guarantee of nutritional value.

Laboratory work will be done for key local food plants – particularly NUS – when nutritional information is absent and funds are sufficient.

Additional literature review will be conducted to look for the presence of any potential toxicity in the local food plants, and (if this is the case) for ways of processing that can remove or change toxic compounds.

In addition, nutritionists or health staff will be consulted on the main nutritional problems occurring in the region. The local food plants that have a high nutritional value and help to tackle the micro-nutrient deficiencies in the project sites, that contribute to food groups under-represented in the local diet, or that play a role during the food scarcity period, may be discussed. Information on under-represented food groups in the diet, and plants consumed during the scarcity period will be obtained from the household surveys, and may be complemented with consultations with community experts during collection missions. This information will be shared during the ToT and with FFS participants for informed decision making on which local food plants to address.

The following information would be captured per species:

- Does it contribute to fill-in an underrepresented food group in the village? (1=yes 2=no)
- Does the plant have an important nutritional value? (1=yes 2=no)
- If yes, specify the nutritional contribution of the species
- Does it contribute to tackle main nutritional problems in the village (1=yes 2=no)
- If yes, specify which nutritional problems the species helps to tackle
- Is the plant specifically consumed in times of food scarcity (1=yes 2=no)
- Does it have a health enhancement property (1=yes 2=no)
- If yes, specify which health enhancement property
- Does it have a known degree of toxicity or restrictions to consumption (1=yes 2=no)
- If yes, please specify the toxicity or restrictions to consumption

Appendix 1. SD=HS Outcome framework on nutrition and local food plants

Proposed logframe		Proposed (meta)indicator
The overall objective of the SD=HS programme is that indigenous peoples and smallholder farmers enjoy their Farmers' Rights and have the capacity to access, develop and use plant genetic resources to improve their food and nutrition security under conditions of climate change.		200,000 households directly reached with at least 50% women and girls
Targeted outcome 3: Strengthen coping strategies of communities by increasing the intake of nutritious food based on local biodiversity and improved management of local food plants (particularly NUS)	1	Number of households affected by the food scarcity period decreased, because of strengthened coping mechanisms based on the access to and use of local food plants (particularly NUS)
	2	Duration (number of months) over which the period of food scarcity in targeted communities has been reduced as a result of the improved access to and use of local food plants (particularly NUS)
	3	Number of households with improved dietary diversity and quality as a result of the improved access to and use of local food plants (particularly NUS)
3.1 SD=HS has identified major problems associated to food and nutritional security, as well as coping strategies that people use (i.e. in relation to the availability, access, utilization and stability of food) in the project sites.	4	Food and nutritional security situation in targeted communities described
	5	Nutritional content of priority local food plants determined (in order to establish their role for tackling nutritional insecurity in each country)
3.2 Strengthened capacity of IPSHF (including at least 50% women) in the management and sustainable use of local food plants	6	Number of FFS established.
	7	Full FFS curriculum on nutrition and local food plants developed, tested and implemented
	8	Number of master trainers and facilitators providing training to farmers on nutrition and local food plants. Data disaggregated by:
	8a/b	Number of male / female master trainers
	8c/d	Number of male / female facilitators
	8e/f	Number of male / female-youth master trainers
	8g/h	Number of male / female-youth facilitators
	9	Number of ToTs (FFS)
	10	Number of refresher courses (FFS)
	11	Number of people that have strengthened their capacity to sustainably manage and use local food plants, through their participation in FFS. Data disaggregated by:
	11a/b	Number of men/women
	11c/d	Number of male / female-youth
	12	Number of people that have strengthened their capacity to sustainably manage and use local food plants, through their participation in other empowerment and experiential learning activities. Data disaggregated by (specify per type of activity):
	12a/b	Number of men/women

	12c/d	Number of male/female-youth
3.3 The knowledge and role of farmers – particularly women – in the sustainable management and use of local food plants and their importance for nutrition is documented, recognized and shared	13	Number of published documents (including tools such as ToT curricula, FFS field guides, FFS research designs addressing specific bottlenecks, recipe books, tools corresponding to other empowerment and experiential learning approaches), web-based articles, videos and other means) sharing knowledge and evidence.
	14	Number of local food plant, particularly NUS, seed exchange networks supported. Data disaggregated by:
	14a/b	Number of male / female led networks
	14c/d	Number of male / female-youth led networks
	15	Number of (local, national, international) events where knowledge is recognized and shared

Appendix 2: Household survey questionnaire

Important instructions for the enumerator

This questionnaire must be administered at household level, where a household is defined as a group of people (one or more persons) who eat together from the same pot. It is important that the respondent is the person who cooks at home; if there is more than one person cooking at home, then the respondent will be the one who decides what and how to cook. This is also the person who will potentially participate in the FFS.

1. Unless otherwise indicated, DO NOT READ OUT RESPONSE OPTIONS.
2. Follow the instructions carefully for each item as they vary across questions.
3. For the questions where it is not possible to provide an answer, use the following missing values:
 - a. 99 = if the respondent does not know the answer
 - b. 98 = if the respondent refuses to provide an answer
 - c. 97 = if not applicable
4. At the end of the interview check the questionnaire and ensure that no question is left without an answer (for those unanswered questions ensure a missing value – see previous item).

Throughout the questionnaire, specific instructions for the enumerator are indicated in italics .

Introduction to the informant/interviewee

(Please as an enumerator provide a brief introduction of your organization) As a member of your community, you have been selected to provide your response to an interview, which is part of the baseline survey of the Sowing Diversity = Harvesting Security program. The interview comprises a series of questions and should take less than one hour to complete. Your participation in this interview is entirely voluntary. Please understand that there are no right or wrong answers. Just answer the questions to the best of your ability.

(i) Do you want to participate in this interview? *(yes/no); If “no” proceed to the next household.*

(ii) *If “yes”, how many years have you and your family been staying in this community?; If less than one year proceed to the next household (households should have lived at least one year in the community in order to be interviewed).*

Before starting the interview proceed to obtain oral or written agreement to the informed consent form.

General information

Enumerator's name: _____

Date: _____

Country: _____

Province: _____

District: _____

Village: _____

Address: _____

Respondent's name: _____

Ethnic group: _____

Polygamous or monogamous household (please note that this might be a sensitive variable, do not ask if sensitive)

Starting Time: _____

Basic demographic and socio-economic information

Please ask the interviewee for the composition of the entire household and fill in this information for each member of the household:

Indicate who is the respondent (*)	Relation to household head (1=head of household, 2= wife, 3= husband, 4=daughter, 5=son, 6=mother, 7= father, 8=other [please specify])	Age	Sex (1=male/ 2=female)	Has this person migrated to another community or city? (1=did not migrate, 2=seasonal migration, 3=permanent migration)	What is the main occupation (1=in farm, 2=outside farm, 3=both)	What is the highest level of formal school completed? (1=never attended, 2= primary, 3= secondary, 4=higher education)	Is this person able to read and write? (1=only read, 2= only write, 3=both, 4=none)	Is this person chronically ill ^a ? (1=yes, 2=no)	Only for children ^b , is this child an orphan? (1=yes, 2=no)

^a Definition of chronically ill: household members that have been ill for at least three out of 12 months in the year and unable to work; and physically or mentally challenged persons in the household.

^b Definition of child: before the application of the household survey, it is necessary to define with the community until what age a person is considered as a child, and from what age as adult. The age of a child is culturally defined, and may vary from country to country.

If there are household members that have migrated for work, do they send any remittances to the household? (1=yes, 2=no) _____

What are the main productive activities of the household (in farm)? (1=agriculture, 2= livestock farming, 3=fishing, 4=hunting, 5=gathering, 6=others [please specify]) Multiple answers are allowed _____

Does the household have a farm? (1=owned, 2=rented, 3=borrowed from family or friends, 4=communal land, 5=other [please specify]) _____

What is the total land area? _____

What are the crops grown during the last 12 months? Please indicate how many varieties are cultivated for each crop. Please also indicate for each crop if it was for sale, consumption, barter, exchange. *If the space below is not enough for writing the names of all crops, please continue on an extra paper. Multiple answers are allowed*

Crops	Number of varieties	Purpose (1=sale, 2=consumption, 3=barter, 4=exchange) Multiple answers are allowed

Who decides what to do with the income from the main productive activities (in farm)? (Indicate relation to household head) _____

Who decides what to do with the income from the outside farm activities (non-farming sources)? (Indicate relation to household head) _____

Does the household have a home garden? (1=yes, 2=no) _____

24 hour recall on food consumption (assessment of dietary diversity)

To be asked in both seasons

Please describe the foods (meals and snacks) that you as an individual member of the household ate or drank yesterday during the day and night, whether at home or outside the home. Start with the first food or drink of the morning.

Write down all foods and drinks mentioned. When composite dishes are mentioned, ask for the list of ingredients. When the respondent has finished, probe for meals and snacks not mentioned.

Breakfast	Snack	Lunch	Snack	Dinner	Snack

Households: include foods eaten by any member of the household. Exclude foods purchased and eaten outside the home (foods purchased and eaten in the home are included; foods not purchased and eaten outside the home are included; only foods purchased outside the home and eaten outside the home are not included).

When the respondent recall is complete, fill in the food groups based on the information recorded above (yes/no). For any food groups not mentioned, ask the respondent if a food item from this group was consumed. If yes, add the food item to the table above. Please bring a table with examples of local food items corresponding to each food group (this table has to be prepared before all interviews take place).

Food group	1= yes, 2= no
Cereals	
White roots and tubers	
Vitamin A rich vegetables and tubers	
Dark green leafy vegetables	
Other vegetables	
Vitamin A rich fruits	
Other fruits	
Organ meat	
Flesh meats	
Eggs	
Fish and seafood	
Legumes, nuts and seeds	
Milk and milk products	
Oils and fats	
Sweets	
Spices, condiments, beverages	
Did you or anyone in your household eat anything (meal or snack) OUTSIDE the home yesterday?	

Did all women aged 15–49 years (reproductive age) in the household consume all the food items listed? (*indicate 1=yes, 2=no, for each woman in reproductive age*) _____

Please indicate the food items not consumed by women aged 15-49 years (but consumed by the rest of the household), if any (*specify for each woman in reproductive age*) _____

Please indicate the food items only consumed by women aged 15-49 years (but not by the rest of the household), if any (*specify for each woman in reproductive age*) _____

Did women aged 15–49 years (reproductive age) in the household consume any foods outside the home? (*indicate 1=yes, 2=no, for each woman in reproductive age*) _____

Please indicate the food items consumed outside home by women aged 15-49 years, if any (*specify for each woman in reproductive age*) _____

Local food plant acquisition (assessment of plant use)

To be asked in both seasons

Please name the local food plants that were acquired by any household member and brought home during the last 7 days. For each plant indicate the source, from where it was brought, and who brought it home. *If the space below is not enough for writing the names of all local food plants, please continue on an extra paper. Multiple answers are allowed.*

Name of local food plant brought home	Sources (<i>1=purchased, 2=harvested, 3=gathered, 4=bartered, 5=donated, 6=exchanged, 7= other [please specify]</i>) <i>Multiple answers are allowed</i>	From where it was brought? (<i>1=agricultural field, 2=home garden, 3= forest, 4=roadside, 5=lake, 6=riverside, 7=market, 8=other [please indicate]</i>) <i>Multiple answers are allowed</i>	Who brought it home? (<i>Indicate relation to household head</i>) <i>Multiple answers are allowed</i>

**Freelistings on local food plants (assessment of plant knowledge, in general and in times of food scarcity)
*To be asked to both adult woman and man in the household (head of household and his/her spouse)***

Please tell me all local food plants you know.

When writing each list of plants it is important to keep the order they were mentioned, as this will be used for the analysis.

If the space below is not enough for writing the names of all local food plants, please continue on an extra paper.

Once the list has been completed, proceed with the traffic light exercise; for that, ask the informant to give a color to each plant in relation to the period when it is consumed:

- *Green light: an affluent period, or when food may not be plentiful but generally is available to the community in adequate quantity and quality.*
- *Amber light: a problematic situation, when food reserves are alarmingly low.*
- *Red light: a situation in which the food supply is depleted and which requires emergency measures.*

Only one color per plant has to be selected.

Order of mention	Name of local food plant known by adult man	Traffic light (1=green, 2=amber, 3= red)
1		
2		
3		
4		
5		
6		
7		
8		
9		

Order of mention	Name of local food plant known by adult woman	Traffic light (1=green, 2=amber, 3= red)
1		
2		
3		
4		
5		
6		
7		
8		
9		

Severity of food insecurity***To be asked in both seasons***

Each of the questions in the following table is asked with a recall period of four weeks (30 days), i.e. the respondent is asked to look four weeks back. The respondent is first asked an occurrence question – that is, whether the condition in the question happened at all in the past four weeks (yes or no). If the respondent answers “yes” to an occurrence question, a frequency-of-occurrence question is asked to determine whether the condition happened rarely (once or twice), sometimes (three to ten times) or often (more than ten times) in the past four weeks.

In the past four weeks, did you worry that your household would not have enough food? (yes/no)

If yes, ask the following questions on food insecurity, and how often each situation happened in the household.

Questions on food insecurity:	Response (1=yes, 2=no)	When the answer was yes , ask how often did it happen (1. rarely = once or twice in the past four weeks, 2. sometimes = three to ten times in the past four weeks, 3. often = more than ten times in the past four weeks) When the answer was no , skip to next question
In the past four weeks, did you worry that your household would not have enough food?		
In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?		
In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?		
In the past four weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?		
In the past four weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?		
In the past four weeks, did you or any household member have to eat fewer meals in a day because there was not enough food?		
In the past four weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?		
In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?		
In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?		

Length of food scarcity season

Now I would like to ask you about your household’s food supply during different months of the year. When responding to these questions, please think back over the last 12 months, from now to the same time last year. Were there months, in the past 12 months, in which you did not have enough food to meet your family’s needs? *(yes/no)*

If yes, which were the months in the past 12 months during which you did not have enough food to meet your family’s needs?

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC

This includes any kind of food from any source, such as own production, purchase or exchange, food aid, or borrowing. (To the enumerator: Do not read the list of months aloud. Place a x in the box if the respondent identifies that month as one in which the household did not have enough food to meet their needs. Probe to make sure the respondent has thought about the entire past 12 months.)

During the food scarcity season *(indicate the months that the respondent answered not having enough food to meet the family needs)*, were there any local food plants that were consumed by the household as a remedy to food shortage? *Once the list has been completed, proceed with the traffic light exercise; for that, ask the informant to give a color to each plant in relation to the period when it is consumed:*

- *Green light: an affluent period, or when food may not be plentiful but generally is available to the community in adequate quantity and quality.*
- *Amber light: a problematic situation, when food reserves are alarmingly low.*
- *Red light: a situation in which the food supply is depleted and which requires emergency measures.*

Only one color per plant has to be selected. If the space below is not enough for writing the names of all local food plants, please continue on an extra paper.

Local food plants used in times of food scarcity	Traffic light of plant (1=green, 2=amber, 3= red)

During the food scarcity season, were there any crop parts that are not used for human consumption under normal conditions consumed by the household? *Once the list has been completed, proceed with the traffic light exercise; for that, ask the informant to give a color to each crop part in relation to the period when it is consumed. Only one color per crop part has to be selected.*

Crop parts that are not used for human consumption under normal conditions, used in times of food scarcity	Traffic light of crop part (1=green, 2=amber, 3= red)

During the food scarcity season, were there any crop residues consumed by the household? *Once the list has been completed, proceed with the traffic light exercise; for that, ask the informant to give a color to each crop residue in relation to the period when it is consumed. Only one color per crop residue has to be selected.*

Crop residues, used in times of food scarcity	Traffic light of crop residue (1=green, 2=amber, 3= red)

Sources of information

What are the current sources of health, hygiene and nutrition information of the household? (1=neighbour, 2=health facilities/clinics, 3=community health workers, 4=support group, farmer groups or FFS, 5=NGOs, 6=radio, 7=school children, 8=TV, 9=pamphlet, 10=cell phone, 11=other [please specify]) Multiple answers are allowed

From the above which are your preferred sources of information? Multiple answers are allowed _____

Why? _____

End of the survey

Thank you very much for your time and the information provided. We will treat it confidentially.

Ending Time: _____

Total Time: _____

Appendix 3: Template for filling in the data from the household survey

Please find the Excel document in this link:

<https://oxfam.box.com/s/yesmrhhh6x8k4uyuyyoelxjl5sjxlccj>

Appendix 4: Template for filling in the data from the local food plant baseline

Please find the Excel document in this link:

<https://oxfam.box.com/s/ybp8zssr2lx1qswgpzq52qc54qqjzvtm>