

**REPORT OF THE ADAPTATION AND PRE-TESTING
OF HOUSEHOLD FOOD SECURITY MONITORING
TOOLS: THE KENYA EXPERIENCE**

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1 INTRODUCTION

Kenya is one of the focus countries of the EC/FAO Programme “Food Security Information for Action” whose broad objectives are to:

- improve availability and quality of relevant food security information
- reinforce capacity in formulating food security policies, strategies and programming based on food insecurity and vulnerability information
- raise awareness of governments, local actors and international community, on the impact of food insecurity and poverty on related policies

The challenge, however, is that there are few standardized indicators of food security at household level; the dimensions of household access to food and food consumption are insufficiently taken into consideration in information systems. To compensate for this lack, systems often rely on anthropometric indicators (malnutrition in pre-school children) which are late stage and non-specific outcomes of food deficits. It is with this background that the FAO Nutrition and Consumer Protection Division, through the EC/FAO Programme, is providing training and technical assistance for the adaptation, use, analysis and interpretation of simple household food and nutrition security monitoring tools.

In Kenya, our task was to conduct adaptation and testing of three household-level food security questionnaires:

- i. The Household Food Insecurity Access Score (HFIAS, FANTA 2006)
- ii. The Household Dietary Diversity Score (HDDS, FANTA 2005)
- iii. The Individual Dietary Diversity Score (IDDS, FAO) for adult women

The above tools are thought to be more specific and sensitive to changes in food situation than child anthropometry, and easy to administer and analyse. The indicators being proposed allow for the evaluation of access to food by households and assessment of their diet. They can be used in early warning systems, as monitoring indicators for food security and nutrition information systems and for evaluation of strategies and programmes such as crop and livelihood diversification or nutrition education. The standardized and universal tools permit an analysis of the food security situation with a common interpretation across different locations within a country as well as across different countries.

2 OBJECTIVES

The EC/FAO Programme activity in Kenya aimed at adapting and testing the questionnaires in the Kenyan urban and rural context. The specific objectives included:

- Adapting the questionnaires to reflect the local conditions
- Testing clarity of the questionnaires
- Testing for additional information necessary to make the tools clear
- Building capacity for use of the tools
- Estimating time needed to administer the questionnaires per household

3 DESCRIPTION OF SITES

Testing for questionnaire adaptation was conducted in two sites:

- i. Kibera Slums – an urban poor neighbourhood in Lang'ata Division, Nairobi
- ii. Mtondia Sub-location – a rural area in Coast Province, Kilifi District, Tezo Location, not currently undergoing a severe agricultural and food security crisis

3.1 Nairobi: Kibera Slums

Kibera is a sprawling shantytown in the south of Kenya's capital city, Nairobi, lacking functioning sanitation and drainage systems. It is said to be Africa's largest slum covering about 4km² and with a population density of 3000 persons per hectare.

Currently Kibera's population is estimated over 500,000 people; half of the residents are under the age of 15. There is a dearth of basic government services, including provision of clean water.

Kibera is home to five of Kenya's six largest ethnic groups (Kikuyu, Luhya, Luo, Kamba and Kisii), in addition to a muslim group, the Nubians, who claim land tenure rights to the slum. Approximately 80% of all youth are unemployed in Kibera and the U.S Centers for Disease Control estimates that over 20% of the population is HIV positive.

3.2 Kilifi District: Mtondia sub-location

Kilifi district is located in the coast province of Kenya, on the north coast of Mombasa. It covers an area of 4,479km² and is subdivided into 36 locations. The major crops grown in the district, as well as in Mtondia sub-location, include maize, green grams, cashew nuts, coconuts, citrus and fruits such as the passion fruit.

4 FIELD WORK

Five days were spent in each area for all the activities involving training of field assistants and field testing of the questionnaires. The sites for the field work had previously been identified and the local leaders informed of the activity. The morning of the first day in each site was spent paying courtesy calls to and briefing the representatives of the Local Government and line ministries including Agriculture, Livestock and Fisheries and Health.

4.1 Training and Adapting Tools for Field Test

The team conducting the adaptation and testing of the tools consisted of five core members and four field staff in each site. The core team, which worked in both areas, included a National Coordinator and an Assistant from the Applied Nutrition Programme at the University of Nairobi; a senior advisor from the EC/FAO Programme at FAO Headquarters, a nutrition consultant from the FANTA Project and an observer from ALRMP/FAO-Kenya (see Appendix 1).

The first five days were spent in Kibera, the urban site. The field staff in Kibera consisted of three field assistants who were extension workers with the Ministry of Agriculture, Home Economics and Nutrition Branch. Through the permanent

secretary for Agriculture, the Chief of the Branch, also provided a senior officer of the Home Economics and Nutrition Branch to participate in the field work in Nairobi. The field staff in Kilifi included one extension worker from the Home Economics and Nutrition Division office, one Ministry of Agriculture extension worker (and currently a University student on study leave) and a Ministry of Health Division Extension worker, all residents of Kilifi. A Ministry of Livestock and Fisheries staff at District level who works with FAO on an early warning food security system and an FAO-Kenya consultant for early warning system participated in the activity and acted as a co-supervisor of the field assistants along with the national coordinators.

One and half days, after the morning of paying courtesy calls, were spent discussing with the enumerators the purpose of the field test and familiarization with the pre-test tools. The following aspects were included in the training:

- Revision of the concept of food security
- Review of the objectives of the pre-test
- Review of the objectives of each of the survey instruments
- Discussion of each of the questionnaires in detail (question by question), including translation into the local language, Kiswahili. To ensure faster translation, pre-translated draft versions of the tools in Kiswahili had already been prepared and participants were asked to critique the translation, brainstorm on the use of terms and make improvements on the drafts
- Discussion and translation of a key informant guide developed by the National Coordinator into the local language, Kiswahili

Prior to the review of the tools in Kibera, Terri Ballard from the FANTA Project gave a briefing on the field experience in Malawi where a similar exercise had just been carried out, in order to introduce and explain the new updates on the tools.

On the third day, two key informant groups of four members each were interviewed to get important information for further revision of the questionnaires. The aim of the interviews was to consolidate and incorporate suggestions for adapting phrases and examples into the questionnaire. The participants consisted of women members of CBOs, officials from NGOs working in the locality and a community health worker. The following aspects were discussed (see key informant guide in Appendix 4a and 4b):

- The concept of the 'household'
- Distinguishing between 'preferred' and 'less preferred' foods and giving examples
- The concept of a 'meal'
- The understanding (with typical examples in the area) of the following phrases
 - 'lack of resources' (and characteristics of households that lack resources in the area)
 - 'limited variety of foods', 'monotonous diet' and 'diverse diet'
 - 'no food in the household at all'
 - 'going to sleep at night hungry because there was not enough food'
 - 'going a whole day without eating anything because there was not enough food'

After the discussion with key informants, the notes were discussed by the team and the concepts, appropriate Kiswahili phrases, terms and lists of examples were drawn

in respect to the above discussed issues. The questionnaires were then revised to incorporate the concepts and compiled lists of specific local examples.

On the fourth day, a focus group discussion (FGD) was conducted with community women. The aim of the FGD was to enable further refinement of the questions and examples given in the questionnaire based on insights into how the questions were actually being interpreted. During the FGD respondents were asked to discuss whether it was possible to remember the household food situation over a previous period of 30 days. The group also discussed how best to phrase the period to respondents for ease of remembering (i.e. past 30 days or 4 weeks or one month) in addition to the above issues discussed with key informants. Furthermore, the group members gave their opinions on how they understood the nine questions in the HFIAS questionnaire and provided examples for use as probes in the HFIAS as well as examples of food items falling under the food groups in the HDDS and IDDS. Each of the HFIAS questions was read out to the participants and their understanding of the question sought by probing.

After further revision of the questionnaires and inclusion of examples obtained from the FGD, the field assistants performed role plays simulating real interview situations, using the revised questionnaires. The refined questionnaire was then used for field pre-testing on the fifth day, after which debriefing was done.

Thus, alongside the training, the field assistants participated in the following key activities:

- Reviewing and translating the tools into the local language (Kiswahili)
- Analyzing phrases and questions used in tools to obtain appropriate interpretation
- Suggesting definitions and examples for use in the field
- Reviewing questionnaires with key informants to adapt questions to local context
- Refining questions with a small group of respondents in a FGD
- Pre-testing questionnaires in at least 15 households

A similar programme, with minor differences, was followed in Kilifi district during the second week, starting with the same pre-translated draft versions initially used in Nairobi. Participants in the key informant interviews included mainly village elders and opinion leaders both male and female. Although we required only 4 participants per group, more people than intended turned up for the meetings and it was difficult to turn away the many voluntary participants. In addition, the FGD was composed of 8 women from the community in Kibera while in Kilifi we had 15 women. It was easy to control the group size in Kibera because discussions were held some distance away from the community as opposed to Kilifi where we were at the very centre of the village. Another difference in the way the exercise was conducted between the two areas is that in Kilifi, the field pre-test was done on the afternoon of the fourth day and on the morning of the fifth day in order to visit more households for the purpose of trying out two proposed methods of administering the dietary diversity scores. Marie Claude from FAO Headquarters had taken the whole team through the concepts behind two proposed methods of administering the dietary diversity scores.

5 FIELD TEST

The field assistants accompanied by at least one member of the core team and a local guide conducted the field testing in 17 households in Kibera, Nairobi and 24 households in Mtondia, Kilifi.

Before the field testing in Kibera, there were questions on how the questionnaires should be ordered when conducting the interview. There were views that the dietary diversity score questionnaires should come first while others felt that the HFIAS questionnaire should be first. We therefore decided to test both views during the field test. In Kibera, 10 sets of the questionnaires were administered in the order of HFIAS first, HDDS second and IDDS last, while 7 sets were administered in the order of HDDS first, IDDS second and HFAIS last. We used a similar method that had been used in Malawi to administer the DDS questionnaires, where by the respondent was asked to recall foods eaten in the household (HDDS) or by the individual (IDDS) from morning until night as the interviewer checked off the food groups mentioned. The interviewer then probed on the food groups not mentioned by the respondent.

In Kilifi we tested two issues:

1. The best order in which to administer the questionnaires i.e. HFIAS first followed by the dietary diversity scores or the reverse
2. The best method to use in administering the dietary diversity score questionnaires i.e. method 1 (list based method), where the interviewer in a chronological manner reads out the examples of foods in a particular food group and allows the respondent time to respond versus a second alternative method (method 2), in which the respondent is asked to recall what they had to eat from morning until night as the interviewer checks off the food groups mentioned, the interviewer then probes for response on the food groups not mentioned by the respondent (see Appendix 2 for details on the two methods).

6 RESULTS AND DISCUSSIONS

6.1 Translation of questionnaires exercise

All the three original questionnaires were translated in Kiswahili and back to English. The HFAIS Kiswahili version was back-translated to English by a neutral person who had not taken part in the exercise to reflect on any major deviations in the questions from the original meaning (see Appendices 3a – 3c for the original and translated questionnaires as well as the back translated HFIAS questionnaire respectively).

For the HDDS, we dropped the word “now” in the opening instructions, having the word there gave the impression that the questionnaire was being administered just after another and we thought it not necessary (see Appendix 3a and 3c). In Kibera, we added three more questions in the HDDS. One question aimed to find out if there are many people eating outside the home and with this, help to gauge the importance of foods eaten away from home, including street foods, seeing that only foods eaten within the home are given consideration in the questionnaire. If people are able to purchase and eat food outside the home they may not prepare food at

home and this may result in the underestimation of the dietary diversity score. The other two questions sort to find out who eats out the most among the family members and who sacrifices the most when it comes to food in the home. The three questions were added to satisfy the temporary wish to know the significance of foods eaten a way from home, such as street foods, in the urban population and in no way is suggestion being made that they remain as a permanent fixture in the questionnaire. It was found that most people who work away from home, especially the men and many school going children eat food not prepared at the home. Men were reported to eat out the most while women sacrifice the most when there is food shortage. Hence, if the questionnaire is applied to the urban setting, it should also address foods eaten away from home.

In the IDDS administered in Kibera, we dropped the initial question B. We felt that asking whether one went to the local market was irrelevant in the urban setting, given the basis on which the question was included in the questionnaire. However, all the first 3 questions (A, B and C), in the IDDS were retained for the Kilifi pre-test, being a rural area with specific local market days. The last two questions, B and C were interchanged and slightly modified to give the questionnaire a logical flow (see Appendix 5 II). Question A asked if the respondent ate "...unusual foods..." Translating this to Kiswahili would be "...*vyakula visivyo vya kawaida*..." which in actual sense means "strange" foods. We felt that the spirit of the question meant to refer to "foods that were not normally eaten" and as such our translation to Kiswahili captured this i.e. "...*vyakula ambavyo kwa kawaida huli*..." (see Appendix 3b).

We had long discussions about the precise meaning of the questions of the HFIAS and how best to get accurate responses and frequencies of occurrence. It was generally agreed that the use of the phrase 'last four weeks' for the recall period was much easier to comprehend than the use of 'last 30 days'. The use of 'last 4 weeks' assisted the respondent to reflect experiences on a weekly basis from the immediate past week backwards. Questions were raised about the precise meaning of each of the nine questions. Question 1 was well understood while it was difficult to have clear differences between questions 2, 3 and 4. For instance, the phrases '**missed** to eat preferred foods' in question 2 and '**forced to reduce** variety of foods' in question 3 did not seem to be different. Question 4 proved particularly challenging to translate because we not only wanted to refer to less preferred foods as such but wanted to add a connotation that such foods were socially unacceptable. We thus came up with the phrase "...*vyakula vilivyodharauliwa*..." in Kibera which ultimately means "foods that are looked down upon". With the experience in Kibera in mind, during our translation exercise in Kilifi, it became apparent that this phrase was too strong and that very few people would be willing to confess having eaten such foods just because of the way in which we referred to them. We opted to remain with the term less preferred foods (*vyakula msivyo vipendelea*) as is but agreed to stress that these were foods consumed only under hardship i.e. when resources were lacking (see Appendix 3c).

Translating the phrase 'lack of resources' to Kiswahili resulted in three different phrases. At first we translated it as '*ukosefu wa fedha*' which literally means 'lack of income'. We realised that the meaning of this phrase was limited only to money. We thought of using the term '*ukosefu wa rasimali*', which actually means lack of resources but we discovered that this is commonly conceptualised as resources for

trading only. We therefore settled for the term '*ukosefu wa mapato*' which the key informants and the FGDs also agreed that it includes lack of income, no way of obtaining food (including borrowing), agricultural production and developing in business. They said that the phrase described a general state of despair.

The challenge with question 8 of the HFIAS was that when the phrase 'slept hungry' is translated to Kiswahili '*mmewahi kulala njaa*', it means going to bed without supper, which gives the question different context from the original one of going to sleep without having had adequate food. We therefore used a Kiswahili phrase that '*mmewahi kulala bila kushiba*' which literally means 'slept feeling hungry or without being satisfied'

6.2 Key Informant interviews

During key informant interviews in Kibera, it was agreed that a household, which was referred to '*jami*' in Kiswahili consisted of people living together and from the same pot. A similar definition was used in Kilifi, but the Kiswahili term used was '*nyumba*', which we adopted in our final Kiswahili version of the questionnaires.

From the discussions, it was evident that preferred foods vary between cultures. In Kibera, it was especially difficult to include examples of less preferred foods in the questionnaire since many different tribes reside together; what might be preferred by one community may be despised by another. For example the Luo community likes '*omena*', a small cheap fish eaten whole, but to the Nubian community, this is a less preferred food. It was also established that the type of ingredients used or a lack of some of the ingredients in the preparation of a meal would cause it to be preferred or less preferred. For example in Kilifi, a lady mentioned that the use of unprocessed animal fat to cook vegetables as opposed to use of processed vegetable fat would render a meal less preferred. Also if a meal e.g. vegetables were prepared without adding the necessary ingredients such as tomatoes, then it would be considered less preferred; tea with no sugar was also less preferred. In addition, certain food combinations may make a meal less preferred e.g. *ugali* (thick maize flour porridge) with *dengu* (green gram) was a less preferred meal as opposed to *ugali* with meat. Thus, preference of foods was less on the basis of the nutritional quality of the foods but more on the basis of food habits and taste. Being nutritionists, and knowing that food security has to do with quantity and quality of food for a healthy life, it was rather challenging for us to content with some of the examples given as preferred foods because we noted that vegetables and vegetable dishes were rarely mentioned when compared to meat. In some cases, it was a matter of what they wished they could eat often.

With regard to a "...limited variety of foods..." in question 3 of the HFIAS, It was interesting to note that for a majority of the respondents, eating *ugali* day after day was not considered monotonous, however, the inability to change the relish made the meal monotonous. However, respondents mentioned that having something different for lunch and supper would also help reduce monotony e.g. having rice for lunch and *ugali* for supper. For a meal to be diversified, many mentioned the inclusion of a high protein source in the diet e.g. meat, fish or eggs. Also, to the respondents, being able to have tea with a snack e.g. *mandazi* (doughnut) or bread for breakfast would make a meal more diversified.

Question 8 in the HFIAS asks if anyone went to sleep hungry because there was not enough food. From the key informants in Kilifi, we found out that, for some, if one had eaten a less preferred food e.g. *ugali* made from cassava flour, they would still consider themselves to have slept hungry. We agreed that it was important to accept people's perception of hunger and chose to consider such a response, although for the same quantity, *ugali* made from cassava flour might deliver the same amount of calories as *ugali* made from maize flour. We argued that if the tool was being used to assess food security in an emergency situation such a response would probably not be considered but for general food monitoring it might.

Participants in the key informant interviews anticipated that it would be difficult to get honest responses to question 9 in the HFIAS because the experience of a total lack of food was shameful in society. Households that are not able to source for their own food are considered poor. Participants were of the advice that the questionnaire administration be carried out in private to create an environment where the respondent would feel free to give honest answers. Following this advice, we did not experience any problems with this particular question, although there were those respondents who would exaggerate their situation, anticipating aid.

6.3 Focus Group Discussions

Generally all the questions were well understood with the exception of question 9 in the HFIAS. The Kiswahili equivalent of "going a whole day without food" i.e. "*kushinda siku nzima bila chakula*" made reference to the day time only (from morning to late evening) excluding the night. The spirit of the question however intends to highlight experience for 24 hours. To ensure correct interpretation we emphasized day and night in the Kiswahili version of the questionnaire (see Appendix 6 III).

Although question 1 was well understood, participants pointed out that it is hard to remember/quantify the number of times one had fear or anxiety. To deal with this anticipated problem, we agreed to try a more qualitative approach when probing for frequency of occurrence for this particular question. In this approach, one would read out the response options available i.e. rarely, sometimes or often to the respondent without reading out the number of times each response option referred to. The interviewer would then probe to find out the actual frequency to ensure the correct response option was given.

Participants felt comfortable with the one month recall period in both sites visited, saying remembering events within this period would not be difficult. In Kilifi participants were indifferent about which phrasing of the recall period was better i.e. either being asked about experiences within the immediate past one month or 4 weeks ago. In Kibera however, participants felt it would be easier to remember experiences if asked in terms of the past 4 weeks. The Malawi adaptation experience of the same questionnaire also showed that recall was better elicited when asked in terms of the past 4 weeks. We thus decided to stick to framing recall in terms of the last 4 weeks.

6.4 Role Plays

During the role plays, the field assistants in Kibera suggested that the number of times corresponding to each frequency option be indicated in each cell of the options column in the HFIAS. They argued that this made it easier for the field assistants to enter the correct response. This was supported by the respondents in Kilifi. It was also noted that, if the respondent was not reminded of the reference period of last 4 weeks when asking each of the 9 HFIAS questions, there was tendency for the respondent to generalise answers and not refer to the period. We therefore decided to include the 4 week period phrase at the beginning of each of the 9 questions in the HFIAS questionnaire version used in Kibera. In Kilifi however, the field assistants indicated that it was the responsibility of the field assistant to keep reminding the respondent of the period of reference and it was not necessary to repeat the phrase in each question. We noted that, sometimes the interviewer did not remind the respondents of the 4 weeks period in some of the questions and the respondent tended to answer in reference to the usual situation instead of referring to the four week period. Some of the interviewers noticed this and reminded the respondent of the period of reference while occasionally they would record responses without noticing. Thus, if the reference period is omitted in each of the HFIAS questions, the interviewer needs to be alert and keen to ensure that s/he mentions the reference period in each question. Since surveys can be tiring especially if the questionnaire is part of another larger one, the interviewer is bound to forget and we recommend that the reference period be specified in each of the 9 questions.

6.5 Field Pre-test

After the pre-tests a debriefing of the activity was done to bring together the issues that arose during administration of the questionnaires. Each interview took 20 – 25 minutes in both areas.

Order of questionnaires

After doing the pre-test in Kibera, we were divided on which order was best to administer the questionnaire. Majority were, however, in support of doing the HFIAS first followed by the dietary diversity scores. The argument for this was that, starting with the HFIAS helped to strike rapport with respondents. The questions in the HFIAS made the respondent feel that you were truly concerned about them. In Kilifi, a greater majority preferred administering the dietary diversity scores first followed by the HFIAS. Starting with something one can easily recall, helps set a good climate for the rest of the interview. The recall period for the dietary diversity scores is only 24 hours compared with the one month recall period for the HFIAS. Further, the HFIAS questions are more intimate and may be intrusive therefore best approached last. Final consensus reached was that it was best to start with the dietary diversity scores first followed by the HFIAS.

Dietary diversity scores

As earlier mentioned, two methods of administering the dietary diversity scores had been proposed. Testing of the two methods was done only in Kilifi. Only one third of the questionnaires were tested using method 1. The following were the arguments tabled by the participants in support and against the methods:

Method 1: Based on lists with confirmation	Method 2: Based on qualitative recall and probing with lists
<p>Advantages:</p> <p>Makes interviewer's work easy because they do not have to spend a lot of time trying to locate foods mentioned in a rather haphazard order by the respondent in the list</p> <p>Standardized, good for the least skilled enumerator</p>	<p>Easier for the respondent because it allows the respondent to mention the foods they ate in a more natural way by stating what they had from morning to night. It is a friendlier approach.</p> <p>Good for mixed foods. It is hard to leave out ingredients of a meal when asked at one go</p>
<p>Disadvantages:</p> <p>Ingredients of a meal (especially those used in small quantities) can easily be forgotten because one is forced to break down the ingredients of a meal and remember them at separate times e.g. one may mention having taken a doughnut but forget to mention taking sugar when asked separately</p> <p>Respondent may be inclined to say they ate a particular food when they did not just because so many examples of food are read out, creating a sense that they are important foods that should have been eaten. Also, it may become embarrassing saying no to everything.</p>	<p>Food group categories must be added to the tool to make it clearer and easier for the enumerator to administer</p>

Since the whole aim of adapting the questionnaires is mainly to ensure that they are easily understood and accepted by the respondents, we opted for method 2 as the preferred method of choice for administration.

Household Food Insecurity Access Score (HFIAS)

From the pre-test, it was evident that questions 1 through to 4 in the HFIAS were challenging to the respondents especially when frequency of occurrence was sought. To deal with this problem we proposed that frequency options be spelled out to the respondents to make recall easier e.g. 1-2; 3 -10 or more than 10 times in a month. Also, for questions 2, 3 and 4, enumerators felt strongly that reading out examples given for the respective questions made understanding better. It also helped to clearly distinguish the three questions.

It was not easy to draw frequency of occurrence for a given experience or reaction for many of the questions in the HFIAS. After the pre-test we discussed the various options available to us in probing for frequencies:

1. Ask the respondent to give the number of times something happened in the past 4 weeks as a whole without probing on week by week basis. From the response given, the appropriate frequency option is selected
2. Without reading out the response options, probe backwards on a week to week basis, starting from the one nearest to determine the frequency of occurrence of a particular experience. The cumulative frequency so calculated will then help in selecting the appropriate frequency option
3. Read out the response options i.e. rarely, sometimes and often without expounding on the actual number of times each label stands for and allow the respondent to choose from these
4. Read out the response options to the respondent i.e. rarely, sometimes or often, including the operational definitions i.e. 1-2, 3-10 and more than 10 times, respectively and allow the respondent to choose from these

One of the enumerators who tried to use option 3 observed that in some cases the response option given did not quite match the meaning in the questionnaire e.g. in one of the interviews, a respondent gave “sometimes” as a response, but on further probing it became apparent that the experience actually occurred only once. Option 3 above can thus not be used alone as a method, probing for frequency is necessary in order to ensure correct response options are selected. Majority of the enumerators, however, used option 2 with no real difficulty. Nevertheless, the response for previous weeks tended to be the same as for the most recent week, thus results can be biased with this method if interviewers are not skilled.

For question 6 in the HFIAS, we found out that it was necessary to clarify that if one missed a meal, it had to be because of a lack of enough food and nothing else. In Kibera for example, we visited a household where the lady mentioned that her husband normally went without lunch. On further probing, however, we established that he skipped lunch because he preferred not to eat outside the home while at work and not because there was not enough food. On this note also, it will be important to note that skipping a meal for religious reasons should not count e.g. during Ramadhan for muslims.

There were issues raised on question 7 which asks whether there was a time when there was no food at all in the house. One of the questions that arose was whether the ‘time when there was no food’ referred to a whole day, meal time or at any point of the day. We worked with ‘any point of the day’ and emphasised that the lack of food reported should be only due to lack of resources. In addition, questions in the HFIAS are said to be arranged in order of increasing severity of food insecurity experience and concerns were raised as to the order of questions 7 and 8. Participants felt that question 7 was more severe than question 8 and as such should be asked after question 8 (i.e. Q8 should precede Q7) . Although swapping the two would have no effect on the food security classification of a household, it made the flow of the questionnaire more logical.

It was noted that during the interview with the HFIAS, some respondents tended not to be keen on taking the phrases ‘because of lack of resources’ and ‘lack of enough food’ into consideration. We agreed that every time the respondent answers a question that contains any one of the phrases, then the phrases should be emphasised so that we do not report missing of meals or sleeping hungry by choice.

After reviewing the pre-test activity, we managed to find some time to discuss how to manually analyze the food security situation from the HFIAS questionnaires. Terri Ballard took us through the whole exercise. Participants were impressed at how easy it was to apply the procedure. They were however curious to know the reasoning behind the weight given to certain responses to particular questions when classifying households in terms of food security. For example questions were raised as to why a “rarely” response for questions 5 and 6 would lead to household being classified as moderately food insecure rather than mildly food insecure. Similar questions were raised as to why “rarely” response for questions 7, 8 and 9 would be classified as “severely food insecure” and not “moderately food insecure” especially if responses to the previous 6 questions are all “rarely”. We had no immediate solution to this but thought that more time should be put in keenly coming up with a way of analysing the responses to avoid misclassification of households.

7 RECOMMENDATIONS

In Kenya we conducted key informant interviews in groups (we intended to have two groups of four members each in each area). This worked well in the urban area but not in the rural area mainly because of the way word was passed around. In the rural area, we think that all village elders and group leaders were informed of the exercise and that is why they came in large numbers. We found the use of groups very interactive and time saving. In addition, where opinions differed, it was possible to discuss why there were differences in opinions and easy to clarify the issues. For instance, in the urban area, it was useful to note that examples of non-preferred foods were related to the ethnicity of the people, an aspect that was probably better resolved in a group than on a one-to-one interview. Although we did not use the one-to-one key informant interviews, we think it would take more time and one could easily miss out on important information particularly where ethnicity is diverse. We therefore recommend the use of small groups of carefully selected key informants.

The comprehension of the English version of the questions by the enumerators is easy albeit a little confusing. The difficulty is in the distinction between the questions of the HFIAS. We think that during the training of enumerators and adaptation of the questionnaires, the context of each question has to be explained to the enumerators so that appropriate examples are obtained for each question. Thus, the context should be well outlined in the manual for adaptation. It was noted that when examples were used as probes, it was easier to obtain appropriate responses.

The frequency options in the HFIAS sometimes do not match with the perceptions of the respondents and the criteria used to come up with these options is not clear. We suggest that the frequency options could also be adapted to suit local conditions during the adaptation process of the questionnaires. The best way to do this would be to use the key informants and FGDs to elucidate the frequencies that best fit in each of the options as perceived by the community. Thus, let the community explain the number of occurrences (a range) in four weeks that they would consider to be rare, sometimes and often. Consequently, when asking the questions at household level, the frequency option ranges are read out to the respondent.

The main problem encountered with the translation was obtaining appropriate phrases and words so as not to change the context of the questions. However, once the context of each English version question is understood, it is easy to come up with the right questions in the local language. The only difference is that the back translation may not be exactly as the original English version but gives more of the contextual aspects of the questions.

We note that the instruments can be useful monitoring tools for the field set up as they are quick to administer. However, the logic behind the analysis especially of the HFAIS needs to be outlined for national consultants and monitoring bodies to adopt them. It is worth noting that we did not undertake a comprehensive look on how the data is analysed and we think it would be useful for this to be addressed in subsequent adaptation exercises. In addition, the tools may not provide information or explanations on why some households are food insecure than others for the purpose of appropriate interventions. Hence they can only be appended to or integrated with other questions to elucidate this information.

Finally, the exercise of adapting the tools is quite comprehensive and we are not aware of other tools that undergo such a rigorous exercise before they are used in Kenya. We think that available tools need to be used in this manner to ensure that people comprehend the questions in their original disposition and that the questions suit the local set up. There is need for forums aiming at marketing this kind of approach to food security assessments and any other types of assessments of this nature. It is in this spirit that a follow-up national stakeholders meeting has been planned for November 2006 with the aim of marketing this approach as well as the tools.

APPENDIX 1: FIELD TEAM

Core team

Mwangi, Alice Mboganie – activity National Coordinator, University of Nairobi
Gloria Mbera – activity Assistant Coordinator, University of Nairobi
Muthoni Mwangi – observer from ALRMP/FAO-Kenya
Terri Ballard – Nutrition Consultant from the FANTA Project
Marie Claude Dop – FAO Nutrition Officer and Focal point for the EC/FAO Programme at FAO, Rome.

Field team in Kibera, Nairobi

Gladys Gitau – Co-supervisor of the field exercise; Officer in Charge of Population Education from Ministry of Agriculture, Home Economics and Nutrition Branch, Headquarters

Lucy Mbugua – Field assistant; Gender and Home Management Officer from Ministry of Agriculture, Home Economics and Nutrition Branch, Lang'ata Division

Rose Nyang'wara – Field assistant; Gender and Home Management Officer from Ministry of Agriculture, Home Economics and Nutrition Branch, Westlands Division

Jane Nderitu – Field assistant; Extension Officer from Ministry of Agriculture, Home Economics and Nutrition Branch, Lang'ata Division

Field team in Kilifi, Coast

Bethuel Wafula – Co-supervisor of the field exercise and in charge of the field logistics; Range Officer and EW data analyst from Ministry of Livestock and Fisheries

Beth Mwaringa – Field assistant; Gender and Home Management Officer from Ministry of Agriculture, Home Economics and Nutrition Branch, Bahari Division

Said Nodoro – Field assistant; Nutritionist from Ministry of Health, Public Health Section

Andrew Makoti – Extension Officer from Ministry of Agriculture, on study leave.

APPENDIX 2: INSTRUCTIONS FOR THE INTERVIEWER FOR TWO METHODS ON DIETARY DIVERSITY QUESTIONNAIRES

Method 1 based on lists with confirmation

Outline :

First you will use the Household questionnaire, only using the list, then Individual questionnaire with a woman aged 15-49 years, in the same way. After this you will ask the 9 questions of the Household food insecurity scale.

After completing all the questionnaires, you will conduct a qualitative recall of the household's intake in the home in the last 24 hours. This is needed to check whether the answers to the DD questionnaires are accurate and complete.

Household Dietary diversity (HDDS) :

Read the instructions in the HDDS. You will read the list of foods to the respondent, group by group and you will ask her which ones were eaten by her or any member of the HH. Ask her to indicate all the foods that were included in the dishes the HH ate.

You read the Group 1 : did you or anyone eat cereals such as bread, noodles, biscuits, read the whole list, underline the foods that were eaten and tick under 'yes' if at least 1 food of this group was eaten.

For group 2 "Vitamin A-rich vegetables and tubers", do not read the name of the groups, read the list and do as for question 1. Underline foods and complete code as previously described.

For Group 3 to 5, you can read out the name of the group, followed by the list of foods. Underline foods and complete code as previously described.

Add other similar foods at end of each question.

For group 6 "Vitamin A-rich fruits" do not read the name of the group but read the list, etc

For group 7 to 15 same as for groups 3 to 5.

Once the questionnaire is completed go to the Individual Dietary Diversity.

Individual dietary diversity (IDDS) :

Ask the 3 preliminary questions A, B and C.

Then read the instructions on the IDDS questionnaire. Review with the respondent the food groups eaten by the HH (in the HDDS questionnaire) and ask her whether or not she ate the food underlined. Underline the foods eaten on the IDDS and tick under YES for the food group if a food was eaten.

Note that group 8 Meat was divided into groups 8A Iron-rich meats and group 8B all other meats.

Then go back to each of the groups that were not indicated in the HDDS and probe as to whether the woman consumed any food in those groups, inside or outside her home. Underline those foods on the IDDS and tick under YES as previously described. If no food was indicated for a particular food group, then tick under NO for that group.

Qualitative recall of the Household's intake in the home:

You will introduce it in the following manner : Ask the respondent to kindly give you information on what the household ate yesterday in order to make sure that what you have written is right. You could apologize for taking her time.

“Now I would like you to describe the food that you or any household member ate yesterday during the day and the night, starting with what you ate when the first person woke up”. You ask the respondent to describe the food (meals and snacks) in chronological order starting in the morning of yesterday. Write the name of each meal or snack and the foods that were eaten.

Probe for snacks eaten between main meals.

If a mixed dish was eaten, ask for all ingredients.

In addition to foods eaten by all the members, probe for foods eaten by a person (s) by him/herself.

Use specific probes for added foods such as milk and sugar in tea, oil in mixed dishes or for making chapati.

Method 2: based on qualitative recall and probing with lists

Household Dietary Diversity (HDDS)

You will start by doing a qualitative 24-hour recall of all the foods and drinks taken by the respondent or anyone in the Household (HH) inside the home.

“I would like you to describe the food that you or any household member ate yesterday during the day and the night in the house (excluding food eaten outside the house). Start with what was eaten when the first person woke up”.

Ask the respondent to describe the food (meals and snacks) in chronological order starting in the morning of yesterday. As the respondent recalls the foods, you underline the corresponding food in the list and tick under YES for the group if at least 1 food of this group is underlined.

Probe for snacks eaten between main meals.

If a mixed dish was eaten, underline all the ingredients of the dish.

In addition to foods eaten by all the members, probe for foods eaten by a person (s) by him/herself.

Use specific probes for added foods such as sugar in tea, oil in mixed dishes or oil in chapati.

Once the recall is finished, probe for groups where YES was not ticked, asking whether the respondent or any other person ate a food in this group, reading out the examples. Tick under NO if no food was underlined in that group. Be sure not to read out to the respondent the name of food group 2 “Vitamin A-rich vegetables and tubers” and group 6 “Vitamin A-rich fruits”.

Individual dietary diversity (IDDS) :

Ask the 3 preliminary questions A, B and C.

Then read the instructions on the IDDS questionnaire. Review with the respondent the food groups eaten by the HH (in the HDDS questionnaire) and ask her whether or not she ate the food underlined. Underline the foods eaten on the IDDS and tick under YES for the food group if a food was eaten.

Note that group 8 Meat was divided into groups 8A Iron-rich meats and group 8B all other meats.

Then go back to each of the groups that were not indicated in the HDDS and probe as to whether the woman consumed any food in those groups, inside or outside her home. Underline those foods on the IDDS and tick under YES as previously described. If no food was indicated for a particular food group, then tick under NO for that group.

APPENDIX 3a: ORIGINAL QUESTIONNAIRES

HOUSEHOLD DIETARY DIVERSITY

Adapted from FANTA, 2005

Now I would like to ask you about the foods and drinks you OR ANYONE ELSE IN THE HOUSEHOLD ate or drank yesterday during the day and at night IN THE HOME

[note for enumerator: excluding foods eaten outside of the home]

Did you or anyone in the household drink or eat:

Question number	Food group	Examples	YES (1)	NO (0)
1	CEREALS	bread, noodles, biscuits, cookies or any other foods made from millet, sorghum, maize, rice, wheat + <i>insert local foods e.g. ugali, nshima, porridge or pastes or other locally available grains</i>		
2	VITAMIN A RICH VEGETABLES AND TUBERS	pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside + <i>other locally available vitamin-a rich vegetables</i>		
3	WHITE TUBERS AND ROOTS	white potatoes, white yams, cassava, or foods made from roots?		
4	DARK LEAFY GREEN VEGETABLES	dark green, leafy vegetables, including wild ones + <i>locally available vitamin-a rich leaves such as cassava leaves etc.</i>		
5	OTHER VEGETABLES	other vegetables, including wild vegetables		
6	VITAMIN A RICH FRUITS	ripe mangoes, papayas, <i>other locally available vitamin a-rich fruits</i>		
7	OTHER FRUITS	other fruits, including wild fruits		
8	MEAT	beef, pork, lamb, goat, rabbit, wild game, chicken, duck, or other birds, liver, kidney, heart or other organ meats or blood-based foods		
9	EGGS			
10	FISH	fresh or dried fish or shellfish		
11	LEGUMES, NUTS AND SEEDS	beans, peas, lentils, nuts, seeds or foods made from these		
12	MILK AND MILK PRODUCTS	milk, cheese, yogurt or other milk products		

13	OILS AND FATS	oil, fats or butter added to food or used for cooking		
14	SWEETS	sugar, honey, sweetened soda or sugary foods such as chocolates, sweets or candies		
15	SPICES AND CAFFEINE OR ALCOHOLIC BEVERAGES	spices, coffee, tea, alcoholic beverages OR <i>local examples</i>		

INDIVIDUAL DIETARY DIVERSITY OF WOMEN 15-49 YEARS

		YES (1)	NO (0)
A.	Was yesterday a celebration or a feast day where you ate unusual foods?		
B.	Did you go to the local market yesterday?		
C.	Did you eat anything outside the home?		

Now I would like to ask you about the foods and drinks you ate or drank yesterday during the day and at night, whether at home or outside of home.

[Note for the enumerator: stress that these questions apply only to the woman respondent and not to any other household members].

Question number	Food group	Examples	YES (1)	NO (0)
1	CEREALS	bread, noodles, biscuits, cookies or any other foods made from millet, sorghum, maize, rice, wheat + <i>insert local foods e.g. ugali, nshima, porridge or pastes or other locally available grains</i>		
2	VITAMIN A RICH VEGETABLES AND TUBERS	pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside + <i>other locally available vitamin-a rich vegetables</i>		
3	WHITE TUBERS AND ROOTS	white potatoes, white yams, cassava, or foods made from roots?		
4	DARK LEAFY GREEN VEGETABLES	dark green, leafy vegetables, including wild ones + <i>locally available vitamin-a rich leaves such as cassava leaves etc.</i>		
5	OTHER VEGETABLES	other vegetables, including wild vegetables		
6	VITAMIN A RICH FRUITS	ripe mangoes, papayas, <i>other locally available vitamin a-rich fruits</i>		
7	OTHER FRUITS	other fruits, including wild fruits		
8A	ORGAN MEAT (IRON-RICH)	liver, kidney, heart or other organ meats or blood-based foods		
8B	FLESH MEATS	beef, pork, lamb, goat, rabbit, wild game, chicken, duck, or other birds,		
9	EGGS			
10	FISH	fresh or dried fish or shellfish		

11	LEGUMES, NUTS AND SEEDS	beans, peas, lentils, nuts, seeds or foods made from these		
12	MILK AND MILK PRODUCTS	milk, cheese, yogurt or other milk products		
13	OILS AND FATS	oil, fats or butter added to food or used for cooking		
14	SWEETS	sugar, honey, sweetened soda or sugary foods such as chocolates, sweets or candies		
15	COFFEE/TEA	tea (black, green herbal) or coffee		

Household Food Insecurity Access Scale (HFIAS) Measurement Tool
Adapted from FANTA, 2006.

For each of the following questions, consider what has happened in the past 30 days. If the answer is yes, indicate whether this happened never, rarely (once or twice), sometimes (3-10 times), or often (more than 10 times) in the past 30 days?			
NO.	QUESTION	Response Options	CODE
		No = it did not happen in the past 30 days Rarely = once or twice in the past 30 days Sometimes = three to ten times in the past 30 days Often = more than 10 times in the past 30 days <i>Or locally-defined explanations equivalent to these frequencies</i>	
1.	Did you worry that your household would not have enough food?	0 = No If yes: 1 = Rarely 2 = Sometimes 3 = Often __
2.	Were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	0 = No If yes: 1 = Rarely 2 = Sometimes 3 = Often __
3.	Did you or any household member have to limit the variety of foods you ate because of lack of resources?	0 = No If yes: 1 = Rarely 2 = Sometimes 3 = Often __
4.	Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?	0 = No If yes: 1 = Rarely 2 = Sometimes 3 = Often __
5.	Did you or any household member eat a smaller meal than you felt you needed because there was not enough food?	0 = No If yes: 1 = Rarely 2 = Sometimes 3 = Often __

6.	Did you or any other household member eat fewer meals in a day because there was not enough food?	0 = No If yes: 1 = Rarely 2 = Sometimes 3 = Often __
7.	Was there ever no food at all in your household because there were not resources to get some (or any)?	0 = No If yes: 1 = Rarely 2 = Sometimes 3 = Often __
8.	Did you or any household member go to sleep at night hungry because there was not enough food?	0 = No If yes: 1 = Rarely 2 = Sometimes 3 = Often __
9.	Did you or any household member go a whole day without eating anything because there was not enough food?	0 = No If yes: 1 = Rarely 2 = Sometimes 3 = Often __

APPENDIX 3b: TRANSLATED QUESTIONNAIRES (KILIFI VERSION)

HOUSEHOLD DIETARY DIVERSITY (Kiswahili)

Ningependa kukuuliza juu ya vyakula na vinyuaji ambavyo wewe au yeyote katika nyumba hii alikula au kunywa jana mchana na usiku hapa nyumbani.

[maelezo kwa anayeuliza maswali: usiulize vyakula vilivyoliwa nje ya boma au nyumba hii]

Je, kuna yeyote katika nyumba hii aliyekunywa au kula vyakula vifuatavyo?

Nambari ya swali	Aina ya chakula	Mifano	NDIO (1)	LA (0)
1	NAFAKA	mkate, tamba (supagetti), biskuti, mandazi, samosa au vyakula vingine vyovyote vilivyotengenezwa kutoka kwa mtama, wimbi, mahindi, mchele au ngano, kwa mfano: ugali, uji n.k.		
2	MBOGA NA VIAZI VILIVYO NA WINGI WA VITAMINI A	matango, karoti, viazi tamu vya manjano + vyakula vingine vipatikanvyo vyenye wingi wa vitamini A		
3	VIAZI VYEUPE NA VYAKULA VYA MIZIZI	viazi vya mboga, viazi vitamu vyeupe, nduma, mhogo au vyakula vilivyo tengenezwa kutokana na mizizi		
4	MBOGA ZA MAJANI ZENYE WINGI WA RANGI YA KIJANI KIBICHI	Sukuma wiki, mchicha, mnavu, mkunde, kigwada, bwere, mchunga, spinach, mzungu, majani ya matango + mboga zingine zozote za majani yenye wingi wa rangi ya kijani kibichi		
5	MBOGA ZINGINE	nyanya, kitunguu maji, hoho, biringanya, kabichi, tunguja, pilipili, mamumunye, n.k.		
6	MATUNDA YENYE WINGI WA VITAMINI A	maembe yaliyoiva, paipai n.k.		
7	MATUNDA MENGINE	machungwa, ndimu, ndizi, mapera, nanasi, matikiti, passion, kunazi, pepeta, vitoria, mkwaju, chenza, madafu, matunda ya damu (tree tomato), zabibu, avocado (parachichi) n.k.		
8	NYAMA	nyama ya ng'ombe, nguruwe, kondoo, mbuzi, sungura, nyama ya mbituni, nyama ya kuku au bata au ndege wengine, nyama ya wadudu kama kumbikumbi, panzi, nyama ya mamba, nyama ya figo, maini, moyo		

9	MAYAI	Mayai ya kuku, bata, ndege n.k.		
10	SAMAKI	samaki asiyekaushwa au aliyekaushwa, omena, papa, simu, kamba, ngege, mbuta, kweza, kaa n.k.		
11	BOROHOA, NJUGU AU KOROSHO NA MBEGU	maharagwe, ufuta, mbaazi, kunde, ndengu, pojo, soya, njugu mawe, minji, njahi, <i>au vyakula vingine vitokanavyo na hivi vilivyotajwa</i>		
12	MAZIWA NA VYAKULA VYOTE VINAVYOTOKA KWA MAZIWA	maziwa, maziwa lala, cheese, yogurt n.k.		
13	MAFUTA	mafuta ya kupikia, mafuta ya samaki, mafuta ya nguruwe, siagi, mafuta ya nasi n.k.		
14	VYAKULA VYA SUKARI	sukari, asali, soda yenye sukari, sukari nguru, kaimati, miwa, chokoleti, peremende, icecream, barafu (ice)		
15	VIUNGO, CHAI AU KAHAWA NA VILEO	viungo kama vile tangawizi, mdalasini, binzari, dhania, kitunguu saumu, karafuu, iliki n.k.; kahawa, chai; vileo kama chang'aa, mnazi, matingasi/busaa, mukoma n.k.		
Additional questions for the urban setting				
16	Je, kuna yeyote kwa jamii yako aliye kula nje?			
17	Je, kati ya wengine kwa jamii yako, ni nani hula nje sana? (Andika jibu)			
18	Je, kati ya wengine kwa jamii yako, ni nani hujinyima chakula zaidi ili kiwatoshe wengine? (Andika jibu)			

INDIVIDUAL DIETARY DIVERSITY OF WOMEN 15-49 YEARS (Kiswahili)

		NDIO (1)	LA (0)
A.	Je, jana kulikuwa na sherehe yoyote ambapo ulikula vyakula ambavyo kwa kawaida huvipati (mfano: ubatizo, sherehe ya kuzaliwa n.k.)?		
B.	Je, ulikula chakula chochote ukiwa nje ya boma lako, hata vitumbua?		
C.	Kama ndio, je, ulikula ukiwa sokoni?		

Ningependa kukuuliza juu ya vyakula na vinyuaji ambavyo ulikula au kunywa jana mchana na usiku ukiwa nyumbani au nje ya boma lako.

[maelezo kwa anayeuliza maswali: sisitiza kwamba maswali haya yanamhusu mwanamke anayehojiwa peke yake na wala hayawahusu jamaa wengine kwenye nyumba].

Nambari ya swali	Aina ya chakula	Mifano	NDIO (1)	LA (0)
1	NAFAKA	mkate, tambi (supagetti), biskuti, mandazi, samosa au vyakula vingine vyovyote vilivyotengenezwa kutoka kwa mtama, wimbi, mahindi, mchele au ngano, kwa mfano: ugali, uji n.k.		
2	MBOGA NA VIAZI VILIVYO NA WINGI WA VITAMINI A	matango, karoti, viazi tamu vya manjano + vyakula vingine vipatikanvyo vyenye wingi wa vitamini A		
3	VIAZI VYEUPE NA VYAKULA VYA MIZIZI	viazi vya mboga, viazi vitamu vyeupe, nduma, mhogo au vyakula vilivyo tengenezwa kutokana na mizizi		
4	MBOGA ZA MAJANI ZENYE WINGI WA RANGI YA KIJANI KIBICHI	Sukuma wiki, mchicha, mnavu, mkunde, kigwada, bwere, mchungu, spinach, mzungu, majani ya matango + mboga zingine zozote za majani yenye wingi wa rangi ya kijani kibichi		
5	MBOGA ZINGINE	nyanya, kitunguu maji, hoho, biringanya, kabichi, tunguja, pilipili, mamumunye, n.k.		
6	MATUNDA YENYE WINGI WA VITAMINI A	maembe yaliyoiva, paipai n.k.		
7	MATUNDA MENGINE	machungwa, ndimu, ndizi, mapera, nanasi, matikiti, passion, kunazi, pepeta, vitoria, mkwaju, chenza, madafu, matunda ya damu (tree tomato), zabibu, avocado (parachichi) n.k.		
8A	NYAMA YA VIUNGO YENYE WINGI WA MADINI YA CHUMA	maini, figo, moyo n.k.		

8B	NYAMA (HATA YA NDEGE)	nyama ya ng'ombe, nguruwe, kondoo, mbuzi, sungura, nyama ya mwituni, nyama ya kuku au bata au ndege wengine, nyama ya wadudu kama kumbikumbi, panzi, nyama ya mamba n.k.		
9	MAYAI	Mayai ya kuku, bata, ndege n.k.		
10	SAMAKI	samaki asiyekaushwa au aliyekaushwa, omena, papa, simu, kamba, ngege, mbuta, kweza, kaa n.k.		
11	BOROHOA, NJUGU AU KOROSHO NA MBEGU	maharagwe, ufuta, mbaazi, kunde, ndengu, pojo, soya, njugu mawe, minji, njahi, au vyakula vingine vitokanavyo na hivi vilivyotajwa		
12	MAZIWA NA VYAKULA VYOTE VINAVYOTOKA KWA MAZIWA	maziwa, mala, cheese, yoghurt, maziwa ya kugandishwa		
13	MAFUTA	mafuta ya kupikia, mafuta ya samaki, mafuta ya nguruwe, siagi, mafuta ya nasi n.k.		
14	VYAKULA VYA SUKARI	sukari, asali, soda yenye sukari, sukari nguru, kaimati, miwa, chokoleti, peremende, icecream, barafu (ice)		
15	KAHAWA/CHAI	chai au kahawa		

Household Food Insecurity Access Scale (HFIAS) Measurement Tool

Kwa maswali yafwatayo, angazia matukio ndani ya majuma manne yaliyopita. Iwapo jibu ni ndio, eleza kama tukio lilitendeka kwa nadra (mara moja au mbili), wakati mwingine (mara 3 hadi 10) au mara nyingi (zaidi ya mara 10) katika majuma manne yaliyopita			
	SWALI	Majibu	ALAMA
		La = haikutendeka kwa majuma manne yaliyopita Nadra = mara 1 au 2, kwa majuma manne yaliyopita Wakati mwingine = mara tatu hadi kumi, kwa majuma manne yaliyopita Mara nyingi = Zaidi ya mara kumi, kwa majuma manne yaliyopita	
1.	Je, ulikuwa na hofu yeyote kwamba nyumba yako itakosa chakula cha kutosha katika majuma manne yaliyopita? • <i>Tukisema nyumba tunamaanisha watu wanaoishi pamoja na kula kutoka nyungu moja</i>	0 = La Kama ndio: 1 = Nadra (mara 1 – 2) 2 = Wakati mwingine (mara 3 – 10) 3 = Mara nyingi (zaidi ya mara 10) ___
2.	Katika majuma manne yaliyo pita, je, wewe au yeyote kwa nyumba yako mmekosa kula vyakula vyovyote mnavyovipendelea kwa kukosa mapato? • <i>Mifano ya vyakula vinavyo pendelewa: wali, chapati, samaki fresh, nyama, maziwa, tambu, mayai, matunda n.k.</i>	0 = La Kama ndio: 1 = Nadra (mara 1 – 2) 2 = Wakati mwingine (mara 3 – 10) 3 = Mara nyingi (zaidi ya mara 10) ___
3.	Katika majuma manne yaliyo pita, je, wewe au yeyote kwa nyumba yako mlilazimika kupunguza matuminzi ya aina tofauti-tofauti ya vyakula kwa sababu ya ukosefu wa mapato? • <i>Kwa mfano: ugali na sukuma wiki badala ya ugali, nyama na sukuma wiki au, ugali mara nyingi bila kubadilishana na vyakula kama chapati, wali n.k. kwa muda mrefu</i>	0 = La Kama ndio: 1 = Nadra (mara 1 – 2) 2 = Wakati mwingine (mara 3 – 10) 3 = Mara nyingi (zaidi ya mara 10) ___
4.	Katika majuma manne yaliyo pita, je, ilitendeka kwamba wewe au yeyote kwa nyumba yako mlilazimika kula vyakula ambavyo hamukutaka kula kwa sababu ya	0 = La Kama ndio: 1 = Nadra (mara 1 – 2) 2 = Wakati mwingine (mara 3 – 10) 3 = Mara nyingi (zaidi ya mara 10) ___

	kukosa mapato? <ul style="list-style-type: none"> • <i>Kwa mfano: kula vyakula kam uji wa wali, uji mwepesi, ugali mwepesi, ugali na chumvi, kitsapu, konzi, matunguru, misiswi n. k.</i> 		
5.	Katika majuma manne yaliyo pita, je, wewe au yeyote kwa nyumba yako mmelazimika kula viwango vidogo vya chakula, nyakati za mlo, tofauti na vile mngenda kwasababu ya upungufu wa chakula? <ul style="list-style-type: none"> • <i>Kwa mfano: kula kiwango kidogo cha chakula cha mchana</i> 	0 = La Kama ndio: 1 = Nadra (mara 1 – 2) 2 = Wakati mwingine (mara 3 – 10) 3 = Mara nyingi (zaidi ya mara 10) ___
6.	Je, wewe au yeyote kwa nyumba yako mmelazimika kupunguza vipindi vya kula kwa siku kwasababu ya kupungukiwa na chakula? <ul style="list-style-type: none"> • <i>Kwa mfano: kutokula chakula cha mchana ili cha jioni kipatikane au ili watoto wale</i> 	0 = La Kama ndio: 1 = Nadra (mara 1 – 2) 2 = Wakati mwingine (mara 3 – 10) 3 = Mara nyingi (zaidi ya mara 10) ___
7.	Je, kulikuwepo wakati wowote ambapo chakula kilikosa kabisa kwa nyumba yako kwasababu ya ukosefu wa mapato?	0 = La Kama ndio: 1 = Nadra (mara 1 – 2) 2 = Wakati mwingine (mara 3 – 10) 3 = Mara nyingi (zaidi ya mara 10) ___
8.	Je, wewe au yeyote kwa nyumba yako mmewai kulala bila kushiba kwasababu ya upungufu wa chakula?	0 = La Kama ndio: 1 = Nadra (mara 1 – 2) 2 = Wakati mwingine (mara 3 – 10) 3 = Mara nyingi (zaidi ya mara 10) ___
9.	Je, wewe au yeyote kwa nyumba yako mmewai kushinda na kulala bila kula chakula chochote kwasababu ya upungufu au ukosefu wa chakula?	0 = La Kama ndio: 1 = Nadra (mara 1 – 2) 2 = Wakati mwingine (mara 3 – 10) 3 = Mara nyingi (zaidi ya mara 10) ___

APPENDIX 3c: BACK-TRANSLATED QUESTIONNAIRES

HOUSEHOLD DIETARY DIVERSITY

I would like to ask you about foods and drinks you or anyone in this household ate or drunk during the day and at night here at home.

[Instructions for the interviewer: do not ask about foods that were eaten away from this home]

Did anyone in this household eat or drink the following foods?

Question number	Type of food	Examples	Yes (1)	No (0)
1	CEREALS	bread, spaghetti, biscuits, <i>mandazi</i> (a kind of doughnut), <i>samosa</i> (a small wheat and meat or vegetable pie) or any other foods made from sorghum, millet, maize, rice or wheat, such as: <i>ugali</i> (thick porridge), <i>uji</i> (thin porridge) etc.		
2	VEGETABLES AND POTATOES RICH IN VITAMIN A	Pumpkin, carrots, orange-fleshed sweet potatoes + other locally found foods rich in vitamin A		
3	WHITE TUBERS AND ROOTS	Irish potatoes, white sweet potatoes, arrow root, cassava or foods made from white roots		
4	DARK GREEN LEAFY VEGETABLES	Kales, amaranthus, black-night shade, cow peas leaves, cassava leaves, sweet potato leaves, spinach, moringa leaves, spinach, pumpkin leaves, <i>mchungu</i> + and any other dark green leafy vegetables		
5	OTHER VEGETABLES	Tomatoes, onion, sweet peppers, egg plant, cabbage, brinjals, chilli, courgette, etc.		
6	FRUITS RICH IN VITAMIN A	Ripe Mangoes, papaya etc.		
7	OTHER FRUITS	Oranges, lemon, ripe bananas, guava, pineapple, water melon, passion fruit, <i>kunazi</i> , <i>pepeta</i> , <i>vitoria</i> , tamarind, <i>chenza</i> , immature coconut fruit, tree tomato, grapes, avocado etc.		

8	MEAT	Beef, pork, mutton, goat meat, rabbit meat, game meat, chicken, duck meat or bird meat, insects such as white ants, grasshoppers, crocodile meat, kidney, liver, heart		
9	EGGS	Chicken, duck, bird eggs etc.		
10	FISH	Fresh or dried fish, <i>omena</i> , shark, <i>simu</i> , prawns, tilapia, Nile perch, octopus, crabs n.k.		
11	LEGUMES, NUTS AND SEEDS	Beans, simsim, pigeon peas, cow peas, green gram, lentils, soya bean, ground nuts, cashew nuts, garden peas, black beans, or foods made from these mentioned		
12	MILK AND MILK PRODUCTS	Milk, fermented milk, cheese, yogurt etc.		
13	FATS AND OILS	Cooking fat/oil, fish oil, lard, margarine/butter, coconut oil/milk etc.		
14	SUGAR FOODS	Sugar, honey, soda with sugar, molasses, <i>kaimati</i> (a very sweet doughnut), sugar cane, chocolate, sweets, ice cream, ice.		
15	SPICES, TEA OR COFFEE AND ALCOHOLIC DRINKS	Spices such as ginger, <i>mdalasini</i> , curry powder, coriander, garlic, <i>karafuu</i> , <i>iliki</i> etc.; coffee, tea; alcoholic drinks such as <i>chang'aa</i> (local spirit made from maize or coconut), <i>mnazi</i> (beer from coconut), <i>matigasi/busaa</i> (beer from maize), <i>mukoma</i> etc.		
Additional questions for the urban setting				
16	Did anybody in your household eat away from home?			
17	Among your household members, who eats away from home often?			
18	Among your household members, who often foregoes eating so as to have adequate food for the rest?			

INDIVIDUAL DIETARY DIVERSITY OF WOMEN 15-49 YEARS (Kiswahili)

		NDIO (1)	LA (0)
A.	Was there a celebration or a feast yesterday where you ate foods which you commonly do not get? (Example: baptism, birthday etc.)?		
B.	Did you eat any food away from home, including snacks?		
C.	If yes, did you eat at the market?		

I would like to ask you about the foods and drinks that you ate or drunk yesterday during the day and at night while at your home or away from your home.

[Instructions for the interviewer: stress that these questions apply to the woman being interviewed only and not to the other members of the household].

Question number	Type of food	Examples	Yes (1)	No (0)
1	CEREALS	bread, spaghetti, biscuits, <i>mandazi</i> (a kind of doughnut), <i>samosa</i> (a small wheat and meat or vegetable pie) or any other foods made from sorghum, millet, maize, rice or wheat, such as: <i>ugali</i> (thick porridge), <i>uji</i> (thin porridge) etc.		
2	VEGETABLES AND POTATOES RICH IN VITAMIN A	Pumpkin, carrots, orange-fleshed sweet potatoes + other locally found foods rich in vitamin A		
3	WHITE TUBERS AND ROOTS	Irish potatoes, white sweet potatoes, arrow root, cassava or foods made from white roots		
4	DARK GREEN LEAFY VEGETABLES	Kales, amaranthus, black-night shade, cow peas leaves, cassava leaves, sweet potato leaves, spinach, moringa leaves, spinach, pumpkin leaves, <i>mchungu</i> + and any other dark green leafy vegetables		
5	OTHER VEGETABLES	Tomatoes, onion, sweet peppers, egg plant, cabbage, brinjals, chilli, courgette, etc.		
6	FRUITS RICH IN VITAMIN A	Ripe Mangoes, papaya etc.		
7	OTHER FRUITS	Oranges, lemon, ripe bananas, guava, pineapple, water melon, passion fruit, <i>kunazi</i> , <i>pepeta</i> , <i>vitória</i> , tamarind, <i>chenza</i> , immature coconut fruit, tree tomato, grapes, avocado etc.		
8A	ORGAN MEAT	Liver, kidney, heart etc.		

8B	MEAT (INCLUDING BIRD MEAT)	Beef, pork, mutton, goat meat, rabbit meat, game meat, chicken, duck meat or bird meat, insects such as white ants, grasshoppers, crocodile meat, etc		
9	EGGS	Chicken, duck, bird eggs etc.		
10	FISH	Fresh or dried fish, <i>omena</i> , shark, <i>simu</i> , prawns, tilapia, Nile perch, octopus, crabs n.k.		
11	LEGUMES, NUTS AND SEEDS	Beans, simsim, pigeon peas, cow peas, green gram, lentils, soya bean, ground nuts, cashew nuts, garden peas, black beans, or foods made from these mentioned		
12	MILK AND MILK PRODUCTS	Milk, fermented milk, cheese, yogurt etc.		
13	FATS AND OILS	Cooking fat/oil, fish oil, lard, margarine/butter, coconut oil/milk etc.		
14	SUGAR FOODS	Sugar, honey, soda with sugar, molasses, <i>kaimati</i> (a very sweet doughnut), sugar cane, chocolate, sweets, ice cream, ice.		
15	COFFE/TEA	Tea or coffee		

HOUSEHOLD FOOD INSECURITY ACCESS SCALE (HFIAS)

For the questions that follow, think about events that took place in last 4 weeks. If the respondent answers yes to any question, remember to indicate the number of times, e.g.: rarely (once or twice), sometimes (3 -10 times), or often (more than 10 times) in the past 4 weeks.

	QUESTION	Response Options	CODE
		No = it did not happen in the past 30 days Rarely = Once or twice in the past 30 days Sometimes = Three to ten times in the past 30 days Often = More than 10 times in the past 30 days	
1.	In the past four weeks, did you have any fear that your household would lack enough food? <ul style="list-style-type: none"> • <i>When we say a household we mean people living together and eating from the same pot</i> 	0 = No If yes: 1 = Rarely (once or twice) 2 = Sometimes (3 – 10 times) 3 = Often (more than 10 times) ___
2.	In the past four weeks, have you or anyone in your household missed to eat any of the kinds of foods you preferred because of a lack of resources? <ul style="list-style-type: none"> • <i>Examples of preferred foods: rice, chapatti, fresh fish, meat, milk, eggs, fruits etc.</i> 	0 = No If yes: 1 = Rarely (once or twice) 2 = Sometimes (3 – 10 times) 3 = Often (more than 10 times) ___
3.	In the past four weeks, have you or anyone in your household been forced to reduce the use of different varieties of food because resources were not enough? <ul style="list-style-type: none"> • <i>Example: ugali with kale instead of ugali with meat and kale; monotonously eating ugali without changing with foods such as chapatti, rice etc for a long time</i> 	0 = No If yes: 1 = Rarely (once or twice) 2 = Sometimes (3- 10 times) 3 = Often (more than 10 times) ___
4.	In the past four weeks, did it happen that you or someone in your household had to eat foods that you really did not want to eat because of a lack of resources? <ul style="list-style-type: none"> • <i>For example: eating foods such as rice porridge, thin porridge,</i> 	0 = No If yes: 1 = Rarely (once or twice) 2 = Sometimes (3 -10 times) 3 = Often (more than 10 times) ___

	<i>thin ugali, ugali with salt, unripe unusual fruit, wild roots etc</i>		
5.	<p>In the past four weeks, have you or anyone in your household been forced to eat smaller amounts of food at meals than you would have wanted because of a lack of enough food?</p> <ul style="list-style-type: none"> • <i>For example: Eating less/small amounts of food per day</i> 	<p>0 = No If yes: 1 = Rarely (once or twice) 2 = Sometimes (3 -10 times) 3 = Often (more than 10 times)</p> ___
6.	<p>In the past four weeks, have you or anyone in your household been forced to reduce the number of times you eat in a day because of a lack of enough food?</p> <ul style="list-style-type: none"> • <i>For example: Skipping lunch in order to avail supper or so that children can have food to eat</i> 	<p>0 = No If yes: 1 = Rarely (once or twice) 2 = Sometimes (3 -10 times) 3 = Often (more than 10 times)</p> ___
7.	<p>In the past four weeks, has there been a time when there was no food at all in your house because of a lack of resources to obtain food?</p>	<p>0 = No If yes: 1 = Rarely (once or twice) 2 = Sometimes (3 -10 times) 3 = Often (more than 10 times)</p> ___
8.	<p>In the past four weeks, have you or anyone in your household slept without being satisfied because food was not enough or it lacked completely?</p>	<p>0 = No If yes: 1 = Rarely (once or twice) 2 = Sometimes (3 – 10 times) 3 = Often (more than 10 times)</p> ___
9.	<p>In the past four weeks, have you or anyone in your household gone a whole day and night without eating anything at all because food was not enough or it lacked completely?</p>	<p>0 = No If yes: 1 = Rarely (once or twice) 2 = Sometimes (3-10 times) 3 = Often (more than 10 times)</p> ___

APPENDIX 4a: KEY INFORMANT INTERVIEW GUIDE (ENGLISH)

We are in the process of adapting questionnaires used for assessment of food insecurity to suit the local context. We would like to consult with you to ensure that the questions contained in these questionnaires are understandable by respondents in this area and culture.

Therefore I will ask you some questions to help us clarify some of the phrases used in the questionnaire for respondents in this area/culture. Please participate in this discussion freely. You may decline if you wish not to participate in the discussion and you may also choose to leave or not to answer a question at any time.

1. We would like to clarify the way that a “**household**” is described in this culture/area. For instance, in some cultures “household” might be defined as “people who live together and share food from a common pot”. Can you tell us how people here would commonly describe a household?
2. We would like to include in the questionnaire examples of different kinds of foods that are considered “preferred foods” in this culture/area. By “preferred foods” we mean foods that people in this area would like to eat if they had adequate resources. What are some examples of such foods in this area?
3. We would like to understand how people here describe “lack of resources”. By lack of resources, we mean not having money or the ability to grow or trade for food. How do people here usually talk about a “lack of resources”? (**Note for interviewer: Probe to find out how a household that lacks adequate resources is described in the area**)
4. We would like to add examples of a diet consisting of “a limited variety of foods” in our questionnaire. When we say “a limited variety of foods”, we want to mean a monotonous diet
5. What types of food are included in a diverse diet in this area as opposed to a monotonous or less varied diet?
6. We would like to include examples of different kinds of foods that poor, food insecure people may eat that are considered “**less preferred**” in this culture. By “**less preferred**” we mean foods that may be considered “**socially unacceptable**” but may be consumed in this area at times when people have no other choice. Are there examples of such foods that could apply here?
7. We would like to understand what people in this area consider a ‘meal’ to be. The term “meal” is understood differently in different cultures. By “meal” we mean the major eating occasions (not including snacks). We would like to make sure that the word “meal” is understood this same way. How are can we express this same concept of “meal” in “**Swahili**” and in this area/culture?
8. We would like to add a phrase in our questionnaire that clarifies the meaning of “**no food at all.**” By “**no food at all**” we mean that the food was not available in the household and could not be accessed by the household’s usual means (e.g. through purchase, from the garden or field, from storage, etc.). What are the terms that best describe the concept of not

having food at hand and not being able to access food through the usual means and channels?

9. What do you understand the following question to mean? 'Did you or any household member go to sleep at night hungry because there was not enough food?'
10. What do you understand the following question to mean? Did you or any household member go a whole day without eating anything because there was not enough food?

APPENDIX 4b: KEY INFORMANT INTERVIEW GUIDE (KISWAHILI)

Tuko katika harakati za kustawisha maswali yatakayotumika katika kuangazia upungufu wa chakula, na kuyaweka katika hali inayo lingana na mazingira yenu. Tungependa kujadiliana nanyi ili kuhakikishe kwamba maswali yatakayoulizwa yanaeleweka na wakaaji wa hapa na ni sambamba na mila na desturi zao.

Kwa hivyo, nitawauliza maswali kutusaidia kuregebisha vipengele fulani vilivyo tumika ili vilingane na mila na desturi za wakaaji wa eneo hili. Tafadhali mue huru kuchangia katika mjadala huu kwa hiari.

1. Tungependa mtufafanulie maana ya maneno “jamii, nyumba na boma” katika sehemu hii. Kwa mfano, katikatamaduni zingine, neno “jamii” linaweza kumaanisha “watu wanaoishi pamoja na kula kutoka nyungu/sufuria moja.” Je, unaweza kunieleza maneno “jamii, nyumba na boma” yana maana gani hapa?
2. Tungependa kujumuisha mifano tofauti ya vyakula vinavyopendelewa zaidi eneo hili. Kwa kusema “vyakula vinavyopendelewa” tunamaanisha vyakula ambavyo watu wangependelea kula kama wangekuwa na mapato ya kutosha. Kuna mifano ipi ya aina ya vyakula kama hivi hapa?
3. Tungependa kujua ni vipi watu hapa wanaelewa mtu anaposema “ukosefu wa mapato.” Kwa kusema “ukosefu wa mapato,” tunamaanisha ukosefu wa pesa, uwezo wa kufanya ukulima au uwezo wa kuhusika katika biashara za kawaida. Je, kwa kawaida, “ukosefu wa mapato” una maana gani kwa watu wa hapa? **(Maelezo kwa anayeuliza maswali: fuatilia zaidi ujue jinsi jamii iliyo na ukosefu wa mapato inavyojulikana au kutambulika katika eneo hili)**
4. Tungependa kuongeza mifano ya mpangilio wa chakula chenye aina chache kwenye maswali. Tunaposema “aina chache ya vyakula” tunamaanisha aina moja ya mpangilio wa chakula kwa muda mrefu. Je, mna mifano ipi ya mipangilio wa chakula inayoonekana kuwa ya kujirudiarudia?
5. Je, ni vyakula vipi ambavyo vinahusishwa katika mipangilio ya vyakula tofauti tofauti kinyume na ule mpangilio wa kujirudiarudia?
6. Tungependa kuongeza mifano ya vyakula aina tofauti ambavyo watu hutumia wakati hawana mapato ya kutosha na ambavyo “havithaminiwi” na mila au desturi za jamii. Tukisema “Kutothaminiwa,” tunamaanisha kwamba hivi vyakula kwa kawaida havikubaliwi na jamii kwa ujumla, lakini hutumika na watu wanapokumbwa na shida ya kupata chakula. Je, kuna mifano yoyote ya aina hii ya vyakula hapa? **(Maelezo kwa anayeuliza maswali: fuatilia zaidi ujue vyakula ambavyo havithaminiwi, kwa mfano: vyakula vinavyoliwa wakati wa ukame)**
7. Tungependa kuelewa ni nini watu wa sehemu hii huchukulia kuwa “vipindi vya kula”. Kwa kusema “vipindi vya kula,” tunamaanisha nyakati muhimu za kula (bila kuhusisha vitumbua). Tungependa kuhakikisha kwamba kipengele “vipindi vya kuli” kinaeleweka hivi. Ni vipi bora kusema/kueleza kipengelele hiki hapa ili kieleweke tunavyotarajia?

8. Tungependa kuongezea kipengele kinacho fafania maana ya “ukosefu wa chakula kabisa”. Kwa kusema “ukosefu wa chakula kabisa nyumbani” tunamaanisha kuwa chakula kilikosekana nyumbani, na pia njia zote za kawaida za kupata chakula hazikuwezekana (kwa mfano: kwa kununua, mavuno ya shambani au chakula kutoka kwa gala n.k.). Je, ni neno au maelezo gani yanaweza kufafania kwa ubora zaidi maana ya kipengele hiki “ukosefu wa chakula kabisa”?
9. Je, unaelewaje swali hili? “Je, wewe au yeyote kwa nyumba yako mmewai kulala njaa kwasababu ya ukosefu au upungufu wa chakula?”
10. Je, unaelewaje swali hili? “Je, wewe au yeyote kwa nyumba yako mmewai kushinda siku nzima bila kula chakula chochote kwasababu ya upungufu au ukosefu wa chakula?”