

**Kagera Health and Development Survey 2010**

**Basic Information Document**

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Basic Information Document**

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## Table of Contents

1	Overview .....	5
2	Electronic Survey Methods .....	6
3	Survey Questionnaires .....	7
3.1	Data File Management .....	8
3.2	Household Questionnaire .....	8
3.2.1	Highlights of Substantial Differences.....	10
3.2.2	Review of Sections .....	13
3.3	Mortality Questionnaire.....	23
3.4	Wedding Questionnaire .....	23
3.5	Sibling Roster Questionnaire.....	24
4	Sample.....	25
4.1	KHDS 91-94 Household Sample: First Stage.....	25
4.2	KHDS 91-94 Household Sample: Second Stage.....	25
4.3	KHDS 2004 and 2010 Household Samples .....	26
4.3.1	KHDS 2004 Households.....	27
4.3.2	KHDS 2010 Households.....	30
5	Organization of Field Work .....	32
5.1	Recruitment.....	32
5.2	Main Field Work .....	32
5.3	Tracking .....	33
6	Data.....	35
6.1	Data Processing .....	35
6.2	Data File Structures .....	35
6.3	Linking 2010 Data Sets .....	38
6.4	Linking Individuals over Time .....	38
6.5	Linking Enterprises .....	40
	Appendix A: Changes in the Food Consumption Section .....	41
	Appendix B: Price Questionnaire Features .....	44
	Items in the price questionnaire and their probability of selection.....	44
	Photos used in the Price Questionnaire .....	45
	Appendix C: List of Related Documents.....	52

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# 1 Overview

## *Introduction*

The Kagera Health and Development Survey 2010 (KHDS 2010) took place in 2010 as the sixth survey wave. Earlier waves of the survey include the four waves from 1991-1994 and the fifth wave in 2004. The KHDS 2010 was designed to provide data to understand changes in living standards of the sample of individuals originally interviewed 16-19 years ago. The KHDS 2010 attempted to re-interview all respondents ever interviewed in the KHDS 91-94 – irrespective of whether the respondent had moved out of the original village, region, or country, or was residing in a new household.

This document is designed to provide information to enable proper and effective use of the KHDS 2010 data. Since KHDS 2010 is based on the previous waves of the survey, data users are encouraged to carefully review "User's Guide to the Kagera Health and Development Survey Datasets" (World Bank, 2004) for the original baseline 1991-1994 KHDS, and "Kagera Health and Development Survey 2004: Basic Information Document" (Beegle et al, 2006) for the 2004 wave. These documents serve to complement this KHDS 2010 Basic Information Document.

For papers using the KHDS 2010 data, we recommend that this document be cited as follows:

De Weerd, Joachim, Kathleen Beegle, Helene Bie Lilleør, Stefan Dercon, Kalle Hirvonen, Martina Kirchberger and Sofya Krutikova (2012). Kagera Health and Development Survey 2010: Basic Information Document. Rockwool Foundation Working Paper Series, Study Paper No. 46.

## *Key Terms and Definitions*

There are a number of specific terms used in reference to the KHDS, which are important for properly reading this document and understanding the data. Here we review the key terms and their definitions.

**Baseline** is used in mainly two contexts, including when referring to:

- The original 51 communities from which households were sampled for the KHDS in 1991. These baseline communities were then revisited for interviews in KHDS waves 2-4.
- The baseline survey refers to the first wave of the KHDS, in 1991.

**Previous Household Member (PHHM)** is an individual who was interviewed at least once during the first phase (in 1991-1994) of this survey. Each household interviewed in the KHDS 2010, by design, has at least one PHHM residing in the household. PHHMs are, in effect, our main sample of panel respondents.

**Dynasty** refers to the group of people (PHHMs) who ever resided in the same KHDS 91-94 household. Many (or most) PHHMs in the same dynasty no longer reside in the same household by 2010. Hence, the sample of KHDS households has grown from wave 1 to wave 5 to wave 6: 912 households in 1991, 2,719 households in 2004, and 3,314 households in 2010.

**Waves** refer to the rounds of the KHDS. Wave 1 is the first round of interviews in 1991. The second to fourth rounds ran from 1992 to early 1994, approximately 6 months apart. The fifth round was in 2004. KHDS 2010 is round 6.

**Tracking** refers to efforts to locate PHHMs. In most cases, this refers to efforts to find a PHHM who had moved out of the baseline community or his/her KHDS 2004 location.

## 2 Electronic Survey Methods

A novel feature of the KHDS 2010 compared to the earlier waves is that data were collected using electronic survey questionnaires administered on handheld computers.

Apart from saving paper, the key advantage of electronic questionnaires is the identification of errors and missing fields during the interview.<sup>1</sup> In KHDS 2010, most of these checks were programmed into the questionnaires from the beginning but many were added as the survey progressed based on the feedback from the field and from the data processing team. Towards the end of the survey, there were more than 1,400 in-built consistency checks in the programme. Before leaving the household, interviewers ran the final validation check and resolved any problems directly with the respondent while still in the household.

Another advantage of electronic questionnaires is the immediate availability of the data. In KHDS 2010, data were uploaded from the field to a secure server using GPRS-enabled mobile phone networks.

A third advantage is that data from previous waves were carried forward to the questionnaires providing the opportunity to resolve possible inconsistencies between the waves.

Finally, the ability to upload data daily provided a range of opportunities to improve tracking practices involved in finding PHHMs. In particular, data files could be sent across teams located in different areas based on the updated tracking information. Furthermore, if the information was not sufficient to track the migrant, the data file was sent back to the teams still located in the baseline village or to other location for additional tracking information.

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<sup>1</sup> For a formal analysis of the benefits of computer-assisted personal interviewing (CAPI), using similar software, see "Caeyers, Chalmers and De Weerdt (2010), *A Comparison of CAPI and PAPI through a Randomized Field Experiment, mimeo, EDI*"

### 3 Survey Questionnaires

The KHDS 2010 is comprised of four questionnaires: the Household Questionnaire, the Wedding Questionnaire, the Mortality Questionnaire, and the Sibling Roster Questionnaire. Unlike the previous waves, KHDS 2010 does not include community, schools or health facility questionnaires. Price data, previously collected as a separate questionnaire, is now collapsed into the Household Questionnaire.

The KHDS 2010 project used the original questionnaires from the KHDS 91-94 as the foundation of the survey instruments. Since some revisions were made to the questionnaires in 2004, the KHDS 2010 also builds on the KHDS 2004.

Where possible, comparability is maintained with the KHDS 91-94 and KHDS 2004 survey instruments. However, the questionnaires for KHDS 2010 were revised to reflect changes in the terms of analytical demands for these panel data. Key revisions to the 2004 survey instruments included:

- Expansion of a module on inheritances
- Inclusion of a module on esteem and efficacy section
- Inclusion of price questionnaire in the Household Questionnaire
- Inclusion of module on household-level health behaviours questions
- Expansion of module on migration
- Expansion of a module on interaction with previous members of the KHDS 91-94
- Inclusion of a module on migration expectations
- Inclusion of a module on interaction with baseline village
- Inclusion of separate wedding and sibling roster questionnaires

This section of the Basic Information Document reviews each of the four questionnaires of the KHDS 2010. For each questionnaire section, substantial differences are highlighted between the survey instruments used in the 2004 and 2010.

**Users are encouraged to use this document as a very general guide to understand the questionnaires. It is not substitute for looking at actual questions available in the Questionnaire Report. Users are encouraged to look directly at the Questionnaires and the Codebook (also referred to as the Questionnaire Report) for literal question wording and to identify differences between survey instruments. These documents are available in Swahili (as used in the field) and English.**

### **3.1 Data File Management**

The KHDS 2010 entailed interviews conducted in 3,314 households over several months. While the bulk of the data collection was focused on household data specific to each of the interviewed households, some parts of the survey pertain to information which could be reported from multiple households. Specifically, this is the case for the Wedding, Mortality or Sibling Roster Questionnaires (see sections below for explanation of content). The data file management was designed to prevent different interviewers from collecting the same data multiple times, and to facilitate the sequencing of collecting complete and accurate data.

To do this, all data were stored in 915 dynasty files. Each dynasty file contained all the data under that particular dynasty collected in the Household, Wedding, Mortality, and Sibling Roster Questionnaires. Each dynasty file was continuously updated by the interviewers, supervisors and the headquarters during the fieldwork. As explained in the previous section, the files were transferred between the field teams and the headquarters using GPRS-enabled mobile phone networks. The programme was designed so that only one person at the time was allowed to modify or add data to the dynasty file. As noted above, this was to prevent different interviewers from collecting the same data multiple times. Furthermore, each time a new household was visited, the interviewer checked whether there were any pending or incomplete Wedding, Mortality or Sibling Roster Questionnaires in the dynasty in order to then try to collect missing data from the new household.

### **3.2 Household Questionnaire**

The Household Questionnaire is the largest of the four questionnaires. It covers various topics of the daily activities of the household and is divided into numerous sections. The respondent in each section depends on the content of the section. Generally, there are four types of respondents: the interviewer (rare, but in the case of direct observation), household head, most knowledgeable person in the household and individual household members. If the designated respondent was not available or capable to respond, the most knowledgeable respondent was used as a proxy.

Table 1 provides the list of the sections of the KHDS 2010 Household Questionnaire.

**Table 1: Sections of the KHDS 2010 Household Questionnaire**

<b>Section</b>	<b>Topic</b>	<b>Respondent</b>
<b>TC</b>	<b>Control Data (Consent and GPS)</b>	<b>Interviewer</b>
<b>T0</b>	<b>Start (Survey Information)</b>	<b>Interviewer &amp; Household Head (or most knowledgeable)</b>
<b>T1</b>	<b>Household Roster</b>	<b>Household Head (or most knowledgeable)</b>
T1a	Roster Member Details	Individual Household Members
<b>T2</b>	<b>Household Members</b>	<b>Individual Household Members</b>

**Table 1: Sections of the KHDS 2010 Household Questionnaire**

<b>Section</b>	<b>Topic</b>	<b>Respondent</b>
T2a	Parents	Individual Household Members
T2b	Education	Individual Household Members 3 years+ and non-member boarding school students
T2c	Health	Individual Household Members
T2d	Employment	Individual Household Members 6 years+
T2e	Individual Expenditures	Individual Household Members
T2f	Shocks	Household Head and PHHMs
T2g	Migration	PHHMs
<b>T3</b>	<b>Agriculture</b>	<b>Most knowledgeable person</b>
T3a	Land	Most knowledgeable person
T3b	Seeds	Most knowledgeable person
<b>T4</b>	<b>Inheritance</b>	<b>Most knowledgeable person</b>
T4a	Inheritance	Most knowledgeable person
T4b	Group Inheritance	Most knowledgeable person
T4c	Individual Inheritance	Most knowledgeable person
<b>T5</b>	<b>Various</b>	<b>Most knowledgeable person</b>
T5a	Non-Farm Self-Employment	Most knowledgeable person
T5b	Household Health	Most knowledgeable person
T5c	Esteem and Efficacy	1 PHHM less than 30 years old
<b>T6</b>	<b>Household</b>	<b>Most knowledgeable person</b>
T6a	Household Income Sources	Most knowledgeable person
T6b	Housing	Most knowledgeable person
T6c	Durable Goods, Livestock and Expenditure	Most knowledgeable person
<b>T7</b>	<b>Consumption and prices</b>	<b>Most knowledgeable person</b>
T7a	Seasons of the Past 12 Months	Most knowledgeable person
T7b	Identification of Consumed Items	Most knowledgeable person
T7c	Food Consumption of Home Production (Crops)	Most knowledgeable person
T7d	Food Consumption of Home Production (Animal Products)	Most knowledgeable person
T7e	Food Expenditures – Seasonal Foods	Most knowledgeable person
T7f	Food Expenditures – Non-Seasonal Foods	Most knowledgeable person
T7g	Miscellaneous Consumption Questions	Most knowledgeable person
T7h	Price Questionnaire	Most knowledgeable person
<b>T8</b>	<b>Networks</b>	<b>Most knowledgeable person</b>
T8a	Links with Previous Household Members	Most knowledgeable person
T8b	Migration Expectations	Most knowledgeable person
T8c	Links with Baseline Village	Most knowledgeable person
T8d	Gifts and Loans Received from Others	Most knowledgeable person
T8e	Gifts and Loans Given to Others	Most knowledgeable person

**Table 1: Sections of the KHDS 2010 Household Questionnaire**

Section	Topic	Respondent
T9	Anthropometry	All PHHMs, All children of PHHMs and household members less than 5 years old
T10	Finish	Interviewer
T10a	Photos	All PHHMs, and spouses of PHHMs that appear in the wedding questionnaire

### 3.2.1 Highlights of Substantial Differences

The Household Questionnaire was revised for the KHDS 2010. New sections and questions were added while some sections and questions were dropped. In addition, a number of questions that were previously asked from all household members were now asked only from PHHMs or PHHMs and their children.

Here we highlight the main changes included in the KHDS 2010 Household Questionnaire from the 2004 KHDS Household Questionnaire:

- Section 2 (Previous Children Living Elsewhere) of the KHDS 2004 was dropped
- The crop section (11b in KHDS 2004) was dropped. Questions about the crops grown and sold were moved to plot level (T3a in KHDS 2010).
- Section 11C (Farm inputs), Section 11D (Sales of products from home produced products) and Section 11E (Farm equipment) were dropped.
- Section 13 C (Non-farm self-employment assets) was dropped.
- Section 17A (Informal organisations) and 17B (Ability to cope) were dropped.
- The following new sections were introduced in 2010: T3b (Seeds), T5b (Household health), T5c (Esteem and Efficacy), T8b (Migration Expectations), and T8c (Links with Baseline village).

The remainder of this section provides details of some of the key changes, section-by-section, between the KHDS 2010 and KHDS 2004 Household Questionnaires. Table 2 provides information on the modifications made in the 2010 Household Questionnaire.

**Table 2: Highlights of substantial differences in 2010 and 2004 household questionnaires**

KHDS 2010	KHDS 2004	Topic	Note
TC	Sec 00	Control Data (Consent and GPS)	
T0	Sec 00	Start (Survey Information)	
T1	Sec 1	Household Roster	Revised
	Sec 2	Children Residing Elsewhere	Dropped
	Sec 3	Main Activities of the Household	Dropped

**Table 2: Highlights of substantial differences in 2010 and 2004 household questionnaires**

<b>KHDS 2010</b>	<b>KHDS 2004</b>	<b>Topic</b>	<b>Note</b>
T2a	Sec 4	Parents	
T2b	Sec 5	Education	
T2c	Sec 6	Health	
	Sec 7A	Activities	Dropped
	Sec 7B	Employment During the Past 7 Days	Dropped
	Sec 7C	Self-employed Farmers During the Past 7 Days	Dropped
	Sec 7D	Self-employed Businessmen During the Past 7 Days	Dropped
	Sec 7E	Other Activities in the Past 7 Days	Dropped
T2d	Sec 7F	Employment	Revised
	Sec 7G	Non-Labor Income	Dropped
T2e	Sec 8	Individual Expenditures	
T2G	Sec 9	Migration	Redesigned
T2f	Sec 10	Shocks	Revised
T3a	Sec 11A	Land	Revised
T3b		Seeds	New section
	Sec 11B	Crops	Dropped; some crop questions moved to Land section (T3a)
	Sec 11C	Farm Inputs	Dropped
	Sec 11D	Sales of Products From Home Grown Crops	Dropped
	Sec 11E	Hand Tools	Dropped
	Sec 11F	Farm Equipment	Dropped
T4	(Sec 15D)	Inheritance	Not comparable
	Sec 13A	Non-Farm Self-Employment Respondent	Dropped
T5a	Sec 13B	Non-Farm Self-Employment	Revised; subsection on 2004 enterprises added
	Sec 13C	Non-Farm Self-Employment Assets	Dropped
T5b		Household Health	New section

**Table 2: Highlights of substantial differences in 2010 and 2004 household questionnaires**

<b>KHDS 2010</b>	<b>KHDS 2004</b>	<b>Topic</b>	<b>Note</b>
T5c		Esteem and Efficacy	New section
T6a	(Sec 17C)	Household Income Sources	New section. Sec 17C from KHDS 2004 moved here.
T6b	Sec 14	Housing	Revised
T6c	Sec 12A, 15A, B, C	Durable Goods, Livestock and Expenditure	Revised
	Sec 12B	Sale of Animal Products	Dropped
	Sec 12C	Livestock Expenditures	Dropped
	Sec 15D	Inheritance or Bride Price Received	See T4 & Wedding Questionnaire
T7	Sec 16	Food Consumption	
T7a	Sec 16A	Seasons of the Past 12 Months	
T7b-d	Sec 16B	Food Consumption of Home Production	Revised
T7b & T7d	Sec 16C-1	Food Expenditures, Seasonal Foods	Revised
T7b & T7f	Sec 16C-2	Food Expenditures, Non-Seasonal Foods	Revised
T7g	Sec16C-2	Miscellaneous Consumption Questions	
T7h		Price Questionnaire	A separate questionnaire in 2004
	Sec 17A	Informal Organizations	Dropped
	Sec 17B	Ability to Cope	Dropped
T8a	Sec 18A	Links with Previous Household Members	Redesigned
T8b		Migration Expectations	New section
T8c		Links with Baseline Village	New section
T8d	Sec 18B	Gifts and Loans Received from Others	Revised
T8e	Sec 18C	Gifts and Loans Given to from Others	Revised
T9	Separate Form	Anthropometry	
T10		Finish (Comments and Photos)	New section

## 3.2.2 Review of Sections

### Section TC: Control Data

This section is the starting point of the household survey. Before starting the interview, the interviewer read the consent form to the respondent and verified that the respondent agreed to be interviewed. In the rare event that the household refused to be interviewed, reasons for the refusal were recorded. The GPS coordinates were also recorded to this section. However, due to privacy protection purposes, the GPS information has not been included in the publicly released data.

### Section T0: Start

The interview date, the language used during the interview and other technical information was recorded on this form. The religion and the tribe of the head were also recorded. This section also included detailed location information of the household.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010 the household location was divided by region/country, district, ward, village, sub-village and neighbourhood.
- The 2010 questionnaire had more than 200 pre-coded ethnicity categories for Head's tribe question.
- In 2010, the interviewer was asked to characterise the remoteness of the household.

### Section T1: Household Roster

The household roster lists all persons who are currently residing in the household. The general definition of household members is all people who normally sleep and eat their meals together in the household during at least 3 of the 12 months preceding the interview. However, there are four exceptions to this:

The following persons are household members, even if they have spent fewer than 3 months in the household in the past 12 months:

1. The person identified as the head of the household
2. Persons who have just joined the household and expect to be residing in the household in the next six months. Examples of such members include infants less than three months old and new spouses.

The following persons are not household members even if they satisfy the general membership criteria:

3. Tenants and boarders and their dependents
4. Contract servants and their dependents

Furthermore, for all non-members in the roster, the household head was asked whether the person is in boarding school. For all boarding school children who did not satisfy the membership criteria, only the education section (T2b) was administered.

In rare cases, a PHHM was found to have made a circular move from a survey household and then back to the household during the course of the field work. For example: Household X in Bukoba was interviewed in April who told that PHHM James does not live with them and has moved to Mwanza. In September, the survey team tracked James in Mwanza, discovered that he has moved back to live with household X. Household X was then revisited, James was added to the roster of household X and all individual level sections (T1, T2 and T9) on James were administered. Such PHHMs are marked in the data as "returned member". However, returned members are not considered as household members. The membership status establishes the questions and sections administered to the individual member (such as Sections under T2). In addition to that, they also determine the size of the household as understood in the questionnaire. For example, many questions are asked of *you or anyone in your household*. In such questions, only people who satisfy the KHDS household membership criteria are considered. In other words, all individuals who are non-members (incl. non-member boarding school children and returned members) are not included.

The use of electronic questionnaires assisted in the construction of the KHDS 2010 household rosters such that previous members can be linked with previous waves of the KHDS. The programme pre-populated the names, sexes and ages of all persons ever listed as members in KHDS waves 1-5. This includes PHHMs (those from KHDS 1991-1994) as well as new members from KHDS 2004. Once one PHHM is identified in the programmer, the corresponding list of all members they resided with in 1991-1994 and 2004 was available for the interviewer.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, information, such as sex, age and name for the KHDS 91-94 and 2004 members were pre-filled to the roster.
- In 2010, the roster section also asked details about the parents of the respondent and the respondent's participation in savings groups and funeral societies.
- In 2010, all non-member boarding school children were identified.

**Section T2a: Parents**

This section collects information about the parents of the household members. All questions in Section 4 of the KHDS 2004 questionnaire were maintained in the KHDS 2010 and some new questions were added.

*Differences between the 2004 and 2010 questionnaires:*

- Questions about identifying the parent of the respondent and whether they were alive or not, and the year of death were moved to T1a in KHDS 2010.
- New questions on whether the respondents inherited land from their parents and whether they were at school when the parent died were added.
- In 2010, certain questions were only asked from the PHHMs and their children.

**Section T2b: Education**

The education section collects information for each household member 3 years and older. The section was also administered for each boarding school child in the roster even if they did not

satisfy the membership criteria. Information about the educational attainment, school starting and ending age, current enrolment status, distance to school, school expenditures in the past 12 months and scholarships received was collected. Certain questions were only asked to the PHHMs and their children.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, the section was administered for all household members 3 years and older and all non-member boarding school children.
- In 2010, dropped questions include: ability to read and write, name of the school, attendance in school in the past 7 days, reasons for and source of scholarship, and identification of the person who provided assistance
- In 2010, question on private tuition, reasons why the respondent never attended school, age when the highest grade obtained were added
- In 2010, certain questions were only asked from PHHMs and their offspring.

### **Section T2c: Health**

The health section collects information about the household members' health status. As in the previous waves, the section contains acute health, chronic health, and general health sub-sections. Some sub-sections are only asked of PHHMs and their children.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, the acute health questions were only administered for PHHMs and their offspring.
- In 2010, questions on the use of mosquito nets were collapsed into one question
- The acute health questions in the 2004 questionnaire included a series of questions aiming to guarantee that the illness is an acute and not a chronic one. In 2010, these questions were collapsed into one question.
- In 2010, the questions on the symptoms of the acute illness, the number of days the respondent was unable to carry out his/her usual activities, and self-diagnosis question if a doctor was consulted were dropped. Questions on recent diarrhoea, weight loss, fever, and skin rash were dropped. Questions on the respondent's ability to do vigorous activities, walk uphill, bending over or stoop and walk more than a kilometre were dropped
- In 2010, for self-diagnosis of chronic condition, only 3 symptom questions were asked instead of 5 in 2004.
- A new section on the respondents' subscription to health insurances was added to KHDS 2010. This section was only administered for PHHMs and their children.

### **Section T2d: Employment**

The employment section was completely revised for KHDS 2010. In KHDS 2004, the section collected information on employment in the past 7 days and 12 months. In KHDS 2010, the employment questions refer only to the 12 month period preceding the interview.

If the respondent reported to have been self-employed or working for someone in the household, the name of the enterprise and the member's engagement (activity and ownership) in the enterprise were recorded. The list of the reported enterprises were later reproduced in Section T5a (Non-farm self-employment) for more detailed questions about each enterprise.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, the employment section was majorly re-designed from the 2004 questionnaire. The employment section did not collect information on the employment in the past seven days, and instead focused on employment in the last 12 months.
- The 2010 questionnaire did not collect information about the respondents' non-labour income.

### **Section T2e: Individual Expenditures**

This section collects information on individual expenditures by household members for two groups of items: those for 12 month recall and those for 2 week recall.

*Differences between the 2004 and 2010 questionnaires:*

- Two-week expenditures on gambling and sporting, cinema and contributions to clubs were dropped.

### **Section T2f: Shocks**

The shock section collects information about the positive and negative shocks experienced from 2004 to 2010. The section was administered to the head of the household and all PHHMs residing in the household. For each year, the respondent is asked whether the year was very good, good, normal, bad or very bad. For every year that was reported as either very good or very bad, the respondent was asked to give reasons. Information on the coping methods used by the respondent is asked for years that are reported to be very bad.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, the section was administered for the household head and all PHHMs in the household. In 2004, the section was administered only for PHHM more than 19 years old.
- In 2010, the recall period was adjusted to the years 2004-2010.
- In 2010, the interviewer identified whether the respondent responded him/herself or whether a proxy respondent was used.
- In 2010, the respondent was asked how long he/she has been living with most people in the household.

### **Section T2g: Migration**

The migration section is administered for each PHHM in the household. Compared to the KHDS 2004, this section has been substantially extended. In addition, the section collects information about permanent and temporary migrations since 1994. Hence the data collected in 2010 are to some extent overlapping with the data collected in 2004. In 2010, the section included

questions about the expenses associated to this migration, the reason for moving and activities in the new location immediately after the move.

*Differences between the 2004 and 2010 questionnaires:*

- The migration section was completely redesigned for KHDS 2010 and is not comparable to KHDS 2004.

### **Section T3: Agriculture**

The size of the agriculture section was significantly reduced for the KHDS 2010. Section T3a (land) was expanded with questions concerning land ownership and land use arrangements. In addition, information about the main crops grown was collected on each plot that the household reported to have cultivated in the past 12 months. The crop codes used in these questions were the same as in Section 11B of the KHDS 2004. Furthermore, the respondent was asked to note the years of the last 3 land sales in the village.

*Differences between the 2004 and 2010 questionnaires:*

- The following KHDS 2004 sections were dropped: 11B (Crops), 11C (Farm inputs), 11D (Sales of produce from home grown crops), 11E (Hand tools) and 11F (Farm equipment).
- In KHDS 2010, questions on the crops grown and the amounts sold were asked in the land section. In KHDS 2004, these questions were asked in section 11B (Crops). However, in KHDS 2010, only the approximate amount of the crop sold was asked.
- In KHDS 2010, questions on the quality, source, ownership and use of land were added to Section T3a (land).
- In KHDS 2010, Section 3b (Seeds) was introduced.

### **Section T4a: Inheritance**

The inheritance section was completely redesigned for KHDS 2010. As a consequence, the recall period was extended from the time of the interview to 1994.

In T4a, the household was asked to list all the individuals that anyone in the household had inherited from since 1994. For each reported person, the type of will and inheritance was asked. A distinction was made with *Group* and *Individual* inheritance. *Group Inheritance* refers to situation where the inheritance was left to a group of people. The household may have only one or several members in this group who inherited. *Individual inheritance* refers to situation where the inheritance was left specifically to one person in the household.

*Differences between the 2004 and 2010 questionnaires:*

- The inheritance section was completely redesigned for KHDS 2010 and is not comparable to KHDS 2004.

### **Section T4b: Group Inheritance**

Section T4b collects information on the value of the inherited assets reported as group inheritance. The section was administered if the deceased person was reported in Section T4a

to have left inheritance to a group of people. The household was also asked to report the size of the group and name all household members who belonged to this group.

### **Section T4c: Individual Inheritance**

Section T4c collects information on the value of the individually inherited assets. The section was administered if at least one person in the household was reported in Section T4a to have inherited individually from the deceased person. All household members who inherited from the deceased person were listed and the values of the inherited assets were asked for each inheritor.

### **Section T5a: Non-Farm Self-Employment**

Section T5a collects information on the enterprises owned by the household based on the list of enterprises generated from the responses in Section T2d (employment). Section T5a also asks about the status of enterprises affiliated with the household members from KHDS 2004. Specifically, in 2004, the most knowledgeable household member was identified for each enterprise reported by the household. If this most knowledgeable member was added to the roster in 2010, the details of the 2004 enterprise were asked about.

For each 2004 enterprise listed, the respondent was first asked whether the enterprise was still operational. In case the enterprise was still operational, the respondent was asked to link the 2004 enterprise to the current enterprises listed earlier in the section.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, questions on the business specific asset were dropped.
- In 2010, detailed questions on expenses and income for each enterprise were dropped.
- In 2010, questions on the sources of start-up capital and buyers of the product were added.
- In 2010, questions about the fate of the enterprises reported in 2004 were added.

### **Section T5b: Household Health**

Section T5b is a new section introduced in 2010. The section collects information about the household's use of bed nets and pesticides. It also asks about the trees planted by the household in the past 12 months.

### **Section T5c: Esteem and Efficacy**

Section T5c is a new section introduced in 2010. The section asks about the respondent's opinions on 23 statements. For each statement, the respondent was asked whether he/she agreed or disagreed with the statement.

The section was administered only to one randomly selected PHHM between the ages of 15 and 30.

### **Section T6a: Household Income Sources**

Section T6a collects information about the income sources of the 2010 and 2004 households. It also asks about assistance from outside organisations, the use of bank accounts and membership in microfinance institutions.

The 2010 questionnaire did not collect detailed income data. This section serves as a replacement for all the income questions that were asked throughout the questionnaire in KHDS 2004. In the 2010 Questionnaire, the household was asked to identify the 3 main current income sources. The same question was asked to PHHMs in the household regarding 2004. In the event that the PHHMs in the KHDS 2010 household did not live together in 2004, the following criteria were used in choosing the 2004 household to refer to: 1) the 2004 household in which the majority of the PHHMs co-resided in 2004; 2) 2004 household of the oldest PHHM.

Finally, Section 17C (Assistance from outside organisations) of the KHDS 2004 was included here.

*Differences between the 2004 and 2010 questionnaires:*

- For the most part, this section did not exist in the KHDS 2004 with the exception of Section 17C (Assistance from outside organisations) of the KHDS 2004.

### **Section T6b: Housing**

The housing section collects information on the type and ownership of dwelling and housing expenses.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, questions about the construction materials were only asked for the main dwelling occupied by the household.
- In 2010, re-sale price of the dwellings and rental income questions were dropped.
- In 2010, question on amount of the pre-paid electricity (*Luku*) was added.

### **Section T6c: Durable Goods, Livestock and Expenditure**

Section T6c collects information about the durable goods and livestock owned by the household. It also asks about the household expenditures on selected items in the past 12 months and in the past 2 weeks.

Section T6c, therefore, combines Sections 12A (Animals), 15A (Durable goods), 15B (Annual expenditures) and 15c (Two-week expenditures) of the KHDS 2004.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, a question on the number of durable goods owned by the household was added.

- In 2010, a number of questions on the animals owned were dropped. The questionnaire only asks the number of animals owned and the value of the meat consumed in the past 12 months.
- In KHDS 2010, the following annual expenditure items were dropped: "Rent or payments for the dwelling in which you reside", "Home repairs", "Repairs of other household items", "Government taxes/licenses", "Dues to cooperatives or professional organizations", "Weddings of household members", "Dowries of household members", "Jewellery and watches", "Toys, games, books other than school books", "Umbrellas, handbags, pouches, or wallets", "Expenses associated with illness of household members who died in the past 12 months", and "Funeral and other expenses associated with any deaths of household members in the past 12 months"
- In KHDS 2010, for two-week expenditure categories: "Envelopes, writing paper, pens and pencils" was dropped and "Internet, Mobile phone credit and mobile phone charging" category was added. "Candles, paraffin, matches" was changed to "Candles, and matches" as paraffin is covered in Section T6b.

### **Sections T7a-T7f: Food Consumption**

Sections T7a to T7f gather information on food consumption and expenditures in the past 12 months.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, a number of incidental food consumption items were dropped (see Appendix A for a list of these dropped items).

### **Section T7g: Miscellaneous Consumption Questions**

Section T7g collects information on the distance to the nearest market, number of meals the household usually has per day and the number of times the household ate meat in the past 7 days.

*Differences between the 2004 and 2010 questionnaires:*

- There are no differences regarding these 3 questions.

### **Section T7h: Price Questionnaire**

In KHDS 2010, the price questionnaire was administered during each household visit. In total there were 32 items in the price questionnaire. However, the number items for which prices were asked varied between households. Each item was assigned a probability value and the programme, using these values, generated the list of items used in the price questionnaire for each household. Furthermore, for items that were not easy to specify in measurable units, a photo of the item was displayed to the respondent. The photo contained the item itself and other items that assisted in understanding the size of the item. Appendix B provides the photos used in the Price Questionnaire and provides a list of items in the price questionnaire and their probability of selection in each household interview.

*Differences between the 2004 and 2010 questionnaires:*

- In 2004, the price questionnaire was administered in all of the baseline communities at the community/market level. In 2010, the price questionnaire was administered in each household visited as a part of the Household Questionnaire.
- The set of items for which the price was asked in 2010 was different than what was used in 2004.

### **Section T8a: Links with Previous Household Members**

This section collects detailed information about the relationships between all households within the dynasty. A list of all dynasty members who were not living in the household at the time of the 2010 interview and were still alive was displayed in the section. For each such member, the household was asked if they knew the person. If the answer was no, the interviewer moved to the next person on the list.<sup>2</sup> If the answer to the first question was yes, information about the current activities and education status were collected. The remaining 44 questions focussed on the communication and assistance between the two households. The respondent household was also asked to rank the welfare status of the other household relative to their own welfare status. If two or more PHHMs who resided outside the respondent household were reported to be residing together, the Household Questions were asked only once. For example: Persons A, B, and C lived together in 1991. In 2010, Person B and C live together, but they do not live with Person A. When Person A's household completes Section T8a, they will report on the current activities and education status of Persons B and C, and report once on the household attributes of Persons B and C.

#### *Differences between the 2004 and 2010 questionnaires:*

- In 2010, questions aiming to identify the recipients of the loans and gifts sent out or received were dropped.
- In 2004, for each PHHM, the respondents were asked whether they had sent a loan or gift worth of 5,000 and 20,000 shillings to the person in the past 10 years. The same questions were asked for gifts and loans received from PHHMs. For 2010, the recall period was changed to 6 years and the 5,000 shillings category was dropped.

### **Section T8b: Migration Expectations**

Section T8B is a new section introduced in 2010. The questions in this section focus on the migration expectations of the household. The questions ask about hypothetical migration to the nearest regional capital and city. The section collects information about the number and quality of contacts the household has in the location. If the household's current location was in a regional capital or city, the corresponding migration questions were skipped.

### **Section T8c: Links with Baseline Village**

This section is only asked of households not residing in the 1991-94 baseline village of the PHHMs. The questions deal with interactions and links that the household has in the village they have left. The section also contains a question on the contacts the migrant had before moving to the current location.

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<sup>2</sup> If the household knew the PHHM but had completely lost contact with the person in question, 'no' was recorded.

### **Section T8d: Gifts and Loans Received from Others**

This section collects information on the gifts or loans received from non-PHHMs during the past 12 months.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, the question about the location of the donor was dropped.
- In 2010, questions identifying the main recipient of the gift or loan were dropped.
- In 2010, questions about assistance in the form of farm or care work or other task were not asked.

### **Section T8e: Gifts and Loans Given to Others**

This section collects information on the gifts or loans sent out to non-Previous Household Members during the past 12 months.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, the question about the location of the recipient was dropped.
- In 2010, questions identifying the main recipient of the gift or loan were dropped.
- In 2010, questions about assistance in the form of farm or care work or other task were not asked.

### **Section T9: Anthropometry**

Anthropometrics were collected after completing the Household Questionnaire; each child less than five years old, all PHHMs, and all the children of the PHHMs were weighed and their heights measured, including information on immunisations.

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, the anthropometrics data were collected only from the PHHMs in the household, their offspring, and all children less than five years old in the household. In KHDS 2004, all household members were measured.
- In 2010, the date of birth was collected from each child less than five years old.

### **Section T10: Finish**

This section concluded the household interview. In this section the interviewer was asked to assess the level of cooperation of the main respondent. There was also a space for general comments.

### **Section T10a: Photos**

In KHDS 2010, all PHHMs and all spouses of the PHHMs that appear in the Wedding Questionnaire (see Section 3.4) were photographed. In addition, a photo of the whole household was taken and was later delivered to the household as an act of appreciation for participating in the survey. The photos were only taken if the respondent agreed to be photographed. Due to the privacy protection purposes, these photos have not been included to the publicly released data.

### ***3.3 Mortality Questionnaire***

The KHDS 2010 mortality questionnaire collected information about the circumstances of all PHHMs who had died after the KHDS 2004 survey or whose 2004 mortality information was incomplete. The questionnaire was usually administered to household members from the earlier KHDS waves, friends, relatives or neighbours. Data on the deceased PHHMs included the year of death and the IDs of the Previous Household Members who resided with the person at the time of death and two years preceding the death. Each time a new household was visited, the interviewer checked whether there were any pending or incomplete mortality questionnaires in the dynasty data file (see Section 3.1 for more details on the data file management in KHDS 2010 in regards to multiple reports on dynasty information from different persons and households being interviewed).

*Differences between the 2004 and 2010 questionnaires:*

- In 2010, question on the place sought for medical care was dropped.

### ***3.4 Wedding Questionnaire***

The wedding questionnaire was administered to all PHHMs who were less than 17 years old at baseline (KHDS 91-94) and had married at least once by 2010. The questionnaire collects information about the married couple and their social and economic status at the time of marrying. It also collects detailed information about the transactions made by the family and other relatives of the groom to the bride's family. The wedding questionnaires were usually administered during the visit to the household where the PHHM was found. However, the brides were often poorly informed about the transactions regarding their wedding while the brides' parents were often better informed. If the household could not respond to the questions about the marriage process, the questionnaire was left blank and administered in another household in the same dynasty. Each time a new household was visited, the interviewer checked whether there were any pending or incomplete wedding questionnaires in the dynasty data file (see Section 3.1 for more details on the data file management in KHDS 2010).

In order to elicit as accurate information of the wedding payments as possible, a distinction was made between *formal* and *informal* marriages. A marriage follows a formal procedure if the matching and pre-marital arrangements are made before the couple begin to live together. The marriage is considered informal if the couple first moves in together and then after some time goes to the family to formalise the arrangement. Furthermore, in case of an informal marriage, it is common that the grooms usually have to pay a "fine" for taking a bride without the family's consent. Therefore, the type of the marriage process dictated the type of payment questions asked from the respondent.

*Differences between the 2004 and 2010 questionnaires:*

- This questionnaire was introduced in 2010. Section 15D of the KHDS 2004 Household Questionnaire contained questions on the bride price received by the household. However, these questions are not comparable to the questions in the 2010 wedding questionnaire.

### ***3.5 Sibling Roster Questionnaire***

The sibling roster questionnaire collects information about all children of the head in KHDS 1991. The questions focus on the current situation of these children or if they are deceased, then on situation before their death. The questionnaire also collects information on the migration histories of these children.

The sibling roster questionnaire was usually administered in the household where the wave 1 head resided. If the head was not found or he/she had passed away, the questionnaire was administered in a household with the most knowledgeable person of these children. Each time a new household was visited, the interviewer checked the dynasty data file as to whether the sibling roster questionnaire was pending or incomplete (see Section 3.1 for more details on the data file management in KHDS 2010).

The questionnaire was not administered in every dynasty. The sibling roster was applicable in the dynasty if the following conditions were met:

- The KHDS 1991 household head was living with at least one of his/her biological children during KHDS 91-94, and at least one such child was under 32 years of age in 2010 and currently alive. Thus, since the criterion for collecting this section is that the child of the head is a PHHM and still alive by 2010, this questionnaire is then capturing the sibling roster of that PHHM.

As noted above, the sibling roster questions were conducted to a subset of all children of the KHDS 1991 household head. Using data from the previous waves, the programme populated a list of all children of the KHDS 1991 household head. The main focus of the questionnaire was on children who were interviewed in the first wave and were less than 32 years old in 2010. These children were called the *star children*. The interviewer started the questionnaire by asking the respondent to tell the names of the parents for each star child in the list. The children who belonged to the couple who were parents to most of these children were chosen to the subset.<sup>3</sup> The interviewer then asked whether any other children in the list or not in the list belonged to this *preferred couple*. The full sibling roster questionnaire was administered to all children belonging to the preferred couple.

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<sup>3</sup> In case of a tie, the child group having the youngest child was chosen.

## **4 Sample**

The following sections describe the KHDS samples. The description of the 91-94 and 2004 samples are based on "Kagera Health and Development Survey 2004: Basic Information Document" (Beegle et al, 2006).

### ***4.1 KHDS 91-94 Household Sample: First Stage***

The KHDS 91-94 household sample was drawn in two stages, with stratification based on geography in the first stage and mortality risk in both stages. A more detailed overview of the sampling procedures is outlined in "User's Guide to the Kagera Health and Development Survey Datasets." (World Bank, 2004).

In the first stage of selecting the sample, the 550 primary sampling units (PSUs) in Kagera region were classified according to eight strata defined over four agronomic zones and, within each zone, the level of adult mortality (high and low). A PSU is a geographical area delineated by the 1988 Tanzanian Census that usually corresponds to a community or, in the case of a town, to a neighbourhood. Enumeration areas of households were drawn randomly from the PSUs in each stratum, with a probability of selection proportional to the size of the PSU.

Within each agronomic zone, PSUs were classified according to the level of adult mortality. The 1988 Tanzanian Census asked a 15 percent sample of households about recent adult deaths. Those answers were aggregated at the level of the "ward", which is an administrative area that is smaller than a district. The adult mortality rate (ages 15-50) was calculated for each ward and each PSU was assigned the mortality rate of its ward.

Because the adult mortality rates were much higher in some zones than others and the distribution was quite different within zones, "high" and "low" mortality PSUs were defined relative to other PSUs within the same zone. A PSU was allocated to the "high" mortality category if its ward adult mortality rate was at the 90th percentile or higher of the ward adult mortality rates within a given agronomic zone.

The KHDS 91-94 selected 51 communities as primary sampling units (also referred to as enumeration areas or clusters). In actuality, two pairs of enumeration areas were within the same community (in the sense of collecting community data on infrastructure, prices or schools). Thus, for community-level surveys, there are 49 areas to interview.

### ***4.2 KHDS 91-94 Household Sample: Second Stage***

The household selection at the second stage (with enumeration areas) was a stratified random sample, where households which were expected to experience an adult death were over-sampled. In order to stratify the population, an enumeration of all households was undertaken.

Between March 15 and June 13, 1991, 29,602 households were enumerated in the 51 areas. In addition to recording the name of the head of each household, the number of adults in the household (15 and older), and the number of children, the enumeration form asked:

- Are any adults in this household ill at this moment and unable to work? If so, the age of the sick adult and the number of weeks he/she has been too sick to work were also noted.
- Has any adult 15-50 in this household died in the past 12 months? If so, the age of each adult and the cause of death (illness, accident, childbirth, other) were also noted.

The enumeration form asked explicitly about illness and death of adults between the ages of 15-50 because this is the age group disproportionately affected by the HIV/AIDS epidemic; it is the impact of these deaths that was of research interest. Out of over 29,000 households enumerated, only 3.7 percent, or 1,101, had experienced the death of an adult aged 15-50 caused by illness during the 12 months before the interview and only 3.9 percent, or 1,145, contained a prime-age adult too sick to work at the time of the interview. Only 77 households had both an adult death due to illness and a sick adult. This supports the point that, even with some stratification based on community mortality rates and in an area with very high adult mortality caused by an AIDS epidemic, a very large sample would have had to have been selected to ensure a sufficient number of households that would experience an adult death during the two-year survey.

Using data from the enumeration survey, households were stratified according to the extent of adult illness and mortality. It was assumed that in communities suffering from an HIV epidemic, a history of prior adult death or illness in a household might predict future adult deaths in the same household. The households in each enumeration area were classified into two groups, based on their response to the enumeration:

- "Sick" households: Those that had either an adult death (aged 15-50) due to illness in the past 12 months, an adult too sick to work at the time of the survey, or both (n=2,169).
- "Well" households: Those that had neither an adult death (aged 15-50) due to illness nor an adult (aged 15-50) too sick to work (n=27,433).

In selecting the sixteen households to be interviewed in each enumeration area, fourteen were selected at random from the "sick" households in that enumeration area and two were selected at random from the "well" households. In one enumeration area, where the number of "sick" households available was less than fourteen, all available sick households were included in the sample; the numbers were balanced using well households. The final sample drawn for the first passage consisted of 816 households in 51 enumeration areas.

### ***4.3 KHDS 2004 and 2010 Household Samples***

The sampling strategy in KHDS 2004 and KHDS 2010 was to re-interview all individuals who were household members in any wave of the KHDS 91-94, a total of 6,353 people. The

Household Questionnaire was administered in the household in which these PHHMs lived. If a household member was alive during the last interview in 1991-1994, but found to be deceased by the time of the fieldwork in 2004 and 2010 then the information about the deceased was collected in the Mortality Questionnaire. The next sections provide statistics of the KHDS 2004 and 2010 households.

#### **4.3.1 KHDS 2004 Households<sup>4</sup>**

Although the KHDS is a panel of individuals and the concept of a *household* after 10-19 years is a vague notion, it is common in panel surveys to consider re-contact rates in terms of households. Table 4 shows the rate of re-contact of the baseline households in KHDS 2004, where a re-contact is defined as having interviewed at least one person from the household. In this case, the term household is defined by the baseline KHDS survey which spans a period of 2.5 years. Due to movements in and out of the household, some household members may have not, in fact, lived together in the household at the same time in the 1991-1994 waves (for example, consider one sibling of the household head moving into the household for one year and then moving out, followed by another sibling moving into the household).

Excluding households in which all previous members are deceased (17 households and 27 respondents), the KHDS 2004 field team managed to re-contact 93 percent of the baseline households. Not all 915 households received four interviews. Unsurprisingly, households that were in the baseline survey for all four waves had the highest probability of being re-interviewed. Of these 746 households, 96 percent were re-interviewed.

Turning to re-contact rates of the sample of 6,353 respondents, Table 5 shows the status of the respondents by age group (based on their age at first interview in the 1991-1994 waves). Re-interview rates are monotonically decreasing with age, although the reasons (deceased or not located) vary by age group. The older respondents were much more likely to be located if alive. Among the youngest respondents, over three-quarter were successfully re-interviewed. Excluding people who died, 82 percent of all respondents were re-interviewed.

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<sup>4</sup> See Beegle et al (2006) for more detailed description of the KHDS 2004 households.

**Table 4: KHDS 2004 and 2010 Households**

<b>KHDS 91-94</b>	<b>KHDS 2004 Re-interview Rates</b>			<b>KHDS 2010 Re-interview Rates</b>			<b>Total</b>
<b>Number of interviews during 1991-1994</b>	<b>Re-interviewed</b>	<b>Deceased</b>	<b>Untraced</b>	<b>Re-interviewed</b>	<b>Deceased</b>	<b>Untraced</b>	
<b>1</b>	22 54 %	4 10 %	15 37 %	22 54 %	4 10 %	15 37 %	<b>41</b>
<b>2</b>	38 83 %	2 4 %	6 13 %	36 78 %	2 4 %	8 17 %	<b>46</b>
<b>3</b>	59 86 %	1 1 %	9 13 %	54 78 %	2 3 %	13 19 %	<b>69</b>
<b>4</b>	713 94 %	13 2 %	33 4 %	706 93 %	18 2 %	35 5 %	<b>759</b>
<b>Overall</b>	<b>832</b> 91 %	<b>20</b> 2 %	<b>63</b> 7 %	<b>818</b> 89 %	<b>26</b> 3 %	<b>71</b> 8 %	<b>915</b>

Notes: "Re-interviewed" means that at least one member of the baseline household was re-interviewed. "Deceased" means that all Previous Household Members are reported to be dead. "Untraced" means that no Previous Household Member was re-interviewed.

**Table 5: KHDS 2004 and 2010 Individuals by Age**

Age at baseline 1991-1994	KHDS 2004				KHDS 2010			
	Re-interviewed	Deceased	Untraced	Re-interview rate among survivors	Re-interviewed	Deceased	Untraced	Re-interview rate among survivors
<b>&lt;10 years</b>	1424 77%	150 8%	278 15%	84%	1403 76%	173 9%	276 15%	84%
<b>10-19 years</b>	1453 73%	99 5%	431 22%	77%	1523 77%	176 9%	284 14%	84%
<b>20-39 years</b>	913 65%	291 21%	205 15%	82%	891 63%	369 26%	149 11%	86%
<b>40-59 years</b>	448 71%	146 23%	38 6%	92%	397 63%	205 32%	30 5%	93%
<b>60+ years</b>	192 40%	275 58%	10 2%	95%	122 26%	352 74%	3 1%	98%
<b>Overall</b>	<b>4430</b> 70%	<b>961</b> 15%	<b>962</b> 15%	<b>82%</b>	<b>4336</b> 68%	<b>1275</b> 20%	<b>742</b> 12%	<b>85%</b>

Notes: Sample of individuals interviewed in KHDS 91-94. Age categories are based on age at first interview. "Re-interviewed" means that the person was found and was re-interviewed. "Untraced" means that the person was not found or refused to be re-interviewed.

### **4.3.2 KHDS 2010 Households**

The re-contact rates in the KHDS 2010 are in line with the ones achieved in KHDS 2004. Table 4 shows the KHDS 2010 re-contacting rates in terms of the baseline households. Excluding the households in which all PHHMs were deceased, 92 percent of the households were re-contacted.

As in KHDS 2004, households that were interviewed four times at the baseline were more likely to be found in 2010. Excluding the households in which all members had died, 95 percent of these households were re-interviewed in 2010.

The KHDS 2010 re-contact rates in terms of panel respondents are provided in Table 5. As in 2004, the older respondents, if alive, were much more likely to be re-contacted than younger respondents. In the oldest age category, 60 years and older at the baseline, the interview teams managed to re-contact almost 98 percent of all survivors. The length of the KHDS survey starts to be seen in this age category however, as almost three quarters of the respondents had passed away by 2010.

Table 6 provides the KHDS 2010 re-contact rates by location. More than 50 percent of the re-interviewed panel respondents were located in the same community as in KHDS 91-94. Nearly 14 percent of the re-contacted respondents were found from other region than Kagera. The survey team also tracked panel respondents in Uganda where one percent of the interviewed panel respondents were located.

The location of the untraced respondents is based on the tracking data. More than half of the untraced respondents are reported to be living in Kagera.

**Table 6: KHDS 2010 Re-Contact Rates by Location**

	Number	Location	%
Baseline sample	6,353		
Re-interviewed	4,336		
		Same community	52
		Nearby village	9
		Elsewhere in Kagera	24
		Other region	14
		Uganda <sup>a</sup>	1
Untraced	742		
		Kagera	53
		Dar es Salaam	9
		Mwanza	9
		Other region	10
		Other country <sup>b</sup>	8
		Not known	11
Deceased	1,275		

*Notes:* Location for untraced respondents is reported by other household members from the baseline survey who were successfully located, interviewed, and able to provide location information on the respondent. In some cases, this information comes from other relatives or neighbours residing in the baseline communities.

a. KHDS 2010 tracked international migrants in Uganda only. b. Countries to which the 58 untraced respondents had moved are: Burundi, Denmark, Kenya, Norway, Rwanda, South-Africa, Sweden, UK and USA.

## **5 Organization of Field Work**

The KHDS 2010 field work was managed by EDI (Economic Development Initiatives). The project headquarters were the EDI office in Bukoba, Kagera. The Bukoba office was responsible for all the contractual and legal matters related to the survey. In addition, logistical arrangements as well as the maintenance and storage of the field equipment were managed from the office.

The next sections give an overview of the recruitment procedures, main field work and tracking.

### ***5.1 Recruitment***

The recruitment for the interviewers and data processing officers started in January 2010. The four KHDS supervisors were EDI employees with past survey experience. The supervisors were involved in the development and piloting of the survey instrument. They also took part in the fieldwork planning and the preparation of the fieldwork manuals. The training of 26 interviewers began in February 2010. The training consisted of 3 weeks of class and 10 days of field training.

In June, five more interviewers were trained and they joined the teams in July. These interviewers had previous survey experience and therefore field training consisted of observing other interviewers during real household visits.

In total, 31 interviewers were employed for the fieldwork. The project also had 3 full time data processing officers based in the headquarters.

### ***5.2 Main Field Work***

The main field work started in April 2010. It consisted of four teams of 6-8 interviewers and each team was led by one supervisor. The main field work was split into two phases. In the first phase, the four teams visited all original clusters in Bukoba Urban, Bukoba Rural and Muleba. The teams visited the households that were still located in the original baseline community and also tracked individuals who had moved to nearby villages.

In the second phase, the teams split up. Two teams visited baseline communities in Karagwe, Biharamulo and Ngara and tracked migrants in these areas. The other two teams were sent out to locations outside Kagera to track migrants. The next section provides details about the tracking in KHDS 2010.

Before starting the work in a community, the supervisor arranged a meeting with the village chairman and presented the necessary documents such as the research permits. The supervisor also arranged accommodation for the field team from the village. Households were grouped by the sub-villages and each interviewer was allocated questionnaires based on these locations.

The village chairman and local guides assisted in finding the respondents. The interviewers usually agreed on the date and time of the visit with the household beforehand. The interviewers completed the household and other questionnaires where applicable in one or two visits depending on the size of the household and the number of sections and questionnaires that applied to the household.

Questionnaire checks were done in four stages:

- First, before leaving the household, the interviewer ran the final validation check. The check went through all pre-written validation rules and alerted the interviewer for any errors or missing fields in the questionnaire.
- Second, in the first months of the fieldwork, the supervisor went through the questionnaire with the interviewer and discussed any problematic issues. They also provided feedback to the headquarters if question specific instructions or new consistency checks were needed.
- Third, after the supervisor had uploaded the data to the headquarters, the data processing team went through each questionnaire. At best, the data was reviewed by the data processing team after a day or two of the interview. If the mistakes were discovered at this stage, the questionnaire was sent back to the supervisor. The supervisor then, depending on the type of the problem, consulted the interviewer or arranged a revisit to the household.
- Fourth, the field management checked the overall quality of the data using statistical packages and provided feedback to the field teams.

The quality control was managed by the Data Processing Team. This included direct observations during interviews and re-visits to households. During re-visits, the data processing officers asked a set of questions from the Household Questionnaire to verify the validity of the data. These re-visits also provided an opportunity to correct questionnaires and to improve tracking information.

### ***5.3 Tracking***

The tracking phase started in August 2010 when a team of seven interviewers were sent to Mwanza, nine interviewers were sent to Dar es Salaam and one interviewer travelled to Uganda. During the tracking phase, one team of 11 interviewers remained in Kagera to visit remaining original baseline communities and track individuals based in Kagera. Each team was led by one supervisor.

In the beginning of October, most of the interviewers were set up to work independently. This facilitated fast turnover of the data files and rapid dispatching of interviewers to conduct interviews in remote parts of Tanzania. These interviewers were responsible for their logistical planning and they transferred data files directly with the headquarters. Supervisors were in close communication with these interviewers.

The main tracking phase ended at the end of October 2010. After that, the fieldwork continued for eight weeks with four full time interviewers in Kagera and one part-time interviewer in Dar es Salaam. Supervision during this phase was organised from the headquarters. This small team was responsible for tracking remaining PHHMs and re-visiting households for questionnaire corrections.

## 6 Data

The following sections provide information on how the data are organized and what unique identifiers can be used to link data across sections of the questionnaire and across different questionnaires. It also provides information on data processing, as well as linking records across survey waves.

### 6.1 Data Processing

The use of electronic questionnaires in the KHDS 2010 eliminated the post-interview data entry phase. The Data Processing Team was responsible for checking the data for any inconsistencies and translating comments from Kiswahili to English.

The questionnaires and the data were handled in Microsoft Access and were later exported to Stata. After the export, minor updates to the data were made. This mainly included re-coding response codes and creating value and variable labels.

### 6.2 Data File Structures

The KHDS 2010 data are contained in many separate Stata data files. Table 7 gives an overview including the level of observation for each record in the data file and the unique variables that identify each record in that data file across 6 categories of data:

1. Household Questionnaire data are named with a "HH" prefix. An exception to this are the anthropometrics data that are stored to "anthro.dta" data file.
2. Wedding Questionnaire data are stored to two data files; "PHHMWedding.dta" and "PHHMWeddingPayment.dta".
3. Mortality Questionnaire data are named "PHHMMortality.dta" and "PHHMTimeOfDeath.dta" data files.
4. Sibling Roster Questionnaire data are stored to "Sibroster.dta"
5. Other Description data from all 4 Questionnaires; "QXOtherDescription.dta"
6. Panel data sets to facilitate using the six waves of the KHDS:
  - "PHHM.dta" has information on PHHMs status across the waves.
  - "LinkIDs.dta" provides the identification variables for household members in all KHDS waves

**Table 7: KHDS 2010 Data File Structure**

				Identification variables		
Data file	Description	Section	Section in KHDS2	#1	#2	#3
<b>Household Questionnaire Data Files</b>						
HHData	Household level sections/questions	T0, T3a_q1;3, T3b, T4a_q1-2, T5b, T6a_q1-5, T6b, T7g, T8a, T8b, T8c, T8d_q1, T8e_q1, T10, T10a_qa;e-g	sec14a*, sec14b, sec14c, sec16c2_q5;q7-8, sec17C_q1, Sec18b_q1, sec18C_q1	HHID		
HHMember	Individual level sections/questions	T1,T2a-d, T2f_q1;6, T2g, T10a_qb-d	sec1, sec4-6, sec7a, sec7f, sec8-9	HHID	PID	
HHEnterpriseMember	Enterprise data: One record per enterprise per household member	T2d	sec3	HHID	Enterprise ID (EntID)	PID of the person associated with the enterprise
HHExpenditureInd	Individual expenditures - 12 months	T2e	sec8	HHID	PID	Expenditure item (T2eQ01)
HHExpenditureInd2wks	Individual expenditures - 2 weeks	T2e	sec8	HHID	PID	Expenditure item (T2eQ02)
HHLifeEvent	Household shocks	T2f	sec10	HHID	PID	Year of Shock (T2fQ00)
HHPlot	Household land plot	T3a	sec11a, sec11b*	HHID	Plot ID (plotID)	
HHInheritance	Household inheritances	T4a, T4aa, T4ba	sec15d*	HHID	ID of the Deceased (DecID)	
HHInheritanceGroup	One record per household member who is an inheritor within a group	T4ba	sec15d*	HHID	ID of the Deceased (DecID)	PID of the household member who inherited
HHInheritanceInd	Household inheritance individual	T4caa	sec15d*	HHID	ID of the Deceased (DecID)	PID of the household member who inherited
HHEnterprise	Household enterprise	T5aa	sec13b	HHID	Enterprise ID (EntID)	
HHEnterprise2004	Household 2004 enterprises (using KHDS-2 sec3 Q6-7)	T5ab		HHID	2004 enterprise ID (Ent04ID)	
HHMemberEE	Esteem and efficacy	T5c		HHID	PID	
HHOutsideOrg	Household outside organisations	T6a	sec17c	HHID	Organisation (T6aQ05L)	
HH2WeekExpense	Household 2-week expenditures	T6c	sec15c	HHID	Expenditure category (T6cQ09L)	

**Table 7: KHDS 2010 Data File Structure**

				Identification variables		
Data file	Description	Section	Section in KHDS2	#1	#2	#3
HHAnnualExpense	Household annual expenditures	T6c	sec15b	HHID	Expenditure category (T6cQ07L)	
HHDurableAsset	Household durables	T6c	sec15a	HHID	Durable item (T6cQ01L)	
HHLivestock	Household livestock level	T6c	sec12a	HHID	Livestock Type (T6cQ06L)	
HHSeasonMonth	One record per household for each month in the year	T7a	sec16a	HHID	MonthOrder	
HHProdCons	Household home products consumed	T7b, T7ca	sec16b	HHID	Type of Food (T7bQ01)	
HHAnimProdCons	Household home animal products consumed	T7b, T7da	sec16b	HHID	Animal Product type (T7bQ02)	
HHFoodExpendS	Household food expenditures - Seasonal	T7b, T7ea	sec16c1	HHID	Food ID (T7bQ03)	
HHFoodExpendNS	Household food expenditures - Non-Seasonal	T7b, T7fa	sec16c2	HHID	Food ID (T7bQ04)	
HHPPriceData	Price questionnaire	T7h		HHID	ItemCode	
HHLinks	Household's links to Previous Household Members	T8aa	sec18a	HHID	PID of the PHHM not in the household	
HHGiftLoanIn	Household gift/loans received from others	T8d, T8da	sec18b	HHID	Donor ID (donorid)	
HHGiftLoanOut	Household gifts/loans given to others	T8e, T8ea	sec18c	HHID	Recipient ID (recid)	
anthro	Anthropometrics data: one record per qualifying person per household	T9a	anthro	HHID	PID	
HHSampleRecord	Household sample record	TC	sec00	HHID		
<b>Wedding Questionnaire Data files</b>						
PHHMWedding	One record per wedding per PHHM who married after 1994	PW	sec15d*	PID		
PHHMWeddingPayment	One record per payment category per wedding per PHHM who married after 1994	PW	sec15d*	PID	Payment Category (PWQ28L)	
<b>Mortality Questionnaire Data files</b>						
PHHMMortality	Mortality of PHHM	PM	mortality1	PID		
PHHMTimeOfDeath	One record per combination of deceased person and living person	PM	mortality1	PID of the deceased	PID of the person present (PIDPresent)	
<b>Sibling Roster Questionnaire Data File</b>						
Sibroster	Siblings roster	PC		PID		
<b>Other Description Data File</b>						
QXOtherDescription	Descriptions associated with 'other' code in all instruments			TableName	VarName	DynID, HHID, PID
<b>Panel Data Files</b>						
PHHM	Basic information on each PHHM	P		PID		
LinkIDs	Identification variables for household members in all KHDS waves			PID		

\*This section was substantially modified for KHDS-3

### 6.3 Linking 2010 Data Sets

There are several important variables to uniquely identify persons, households and dynasties.

- *DynID* is the combined KHDS 91-94 household ID (i.e. *cluster* and *hh* variable in the KHDS 91-94 waves) and all PHHMs originating from the same 1991-94 household share the same Dynasty ID.
- *HHID* identifies the 2010 household. Each 2010 household member belongs to at least one household. Digits 5 to 8 of the *HHID* provide the *DynID* of the household. For example, household with *HHID* "0300381006" belongs to dynasty 3810.
  - In very rare cases, a 2010 household includes PHHMs from two KHDS 91-94 households. This would happen, for example, if two people in a KHDS village got married and both resided in 1991 in KHDS households. In this case, *HHID* can only contain to the *DynID* for one of the PHHMs in the household.
- *PID* uniquely identifies persons. There are three types of persons.
  1. PHHMs have 10-digit identification numbers that contains the dynasty ID they originate from.<sup>5</sup>
  2. New persons in KHDS 2004 were assigned a 10-digit personal identification number. For them, *PID* is a combination of the 2004 household ID and roster ID.
  3. New persons in KHDS 2010 were assigned a 12-digit identification number. For them, *PID* is a combination of the 2010 household ID (*HHID*) and the order in which the person was added to the household roster.

### 6.4 Linking Individuals over Time

Data users are encouraged to use the "LinkIDs.dta" dataset to link individuals over time. This dataset includes all individuals ever interviewed in any KHDS wave (KHDS 91-94, 2004 and 2010). It also includes the members of the Children Living Elsewhere (CLE) roster of the KHDS 91-94. The dataset provides the identification variables for all individuals for each KHDS wave in which they were interviewed.

Individuals appearing in the KHDS 91-94 data as household members can be linked to KHDS 91-94 data using *cluster*, *hh* and *id* variables that were used to identify household members in KHDS 91-94. Members that appear in the CLE-roster can be linked using *cluster*, *hh* and *cid* variables.

Individuals in the KHDS 2004 were identified using 6-digit identification numbers (*hhid2*) and a 2-digit member id (*id2*). These two variables can be used to link the KHDS 2004 household

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<sup>5</sup> The *PID* also contains the *pid91\_94* variable that is almost always the combined *cluster*, *hh* and *id* variables of KHDS 91-94.

members to the KHDS 2004 data. In a small number of cases, the same person was interviewed in two or more households. Since the KHDS 2004 individual identification was associated to the household id, these individuals cannot be uniquely linked to the "LinkIDs.dta" dataset using KHDS 2004 data. To account for this, the "LinkIDs.dta" dataset contains extra variables (*hhid2\_2*, *id2\_2*, *hhid2\_3* and *id2\_3*) that provide these additional household and member IDs.

### ***Special cases***

In a very small number of cases, a panel respondent may have moved into another panel household. These cases are called *merged dynasty households*. Variable *specialhh* can be used to identify these households. Usually, the questionnaire identified only one of the PHHMs. Since some of the sections and questions are only enabled for PHHMs, most of these households were therefore visited twice. During the second visit, only questions that were not asked due to the identification failure were asked. Most of these questions were individual level questions although sometimes also the household level sections were repeated. The questionnaires were later merged into one Household Questionnaire. However, since the household level sections may have been different, the "HHData.dta" file contains both households. Variable *MHHID* can be used to link the reduced Household Questionnaires to the full ones. Finally, in the case of merged dynasty households, *HHID* will only contain *DynID* for one of the PHHM in the household.

The survey team discovered two Previous Household Members that originate from two different KHDS 91-94 households and appear twice in the KHDS data. These PHHMs are identified in the "LinkIDs.dta" and "PHHM.dta" datasets with the *otherPID* variable that gives the other PID for the person.

In very few cases, a household member resides in two KHDS 2010 households at the same time. These are cases where two observations in Household Questionnaire data have the same *PID*. Variable *specialmem* in "HHMember.dta" explain the reasons why this occurred, including:

- The person is polygamous and maintains two separate household (most common reason).
- The person was reported as the household head in one household (which automatically qualifies the person as a household member), although is actually residing in another location.
- The person whose parents have divorced lives with his/her father and mother and is considered a member in both households.
- The person is not well and is taken care of by two households. The person is considered a member in both households.

## **6.5 *Linking Enterprises***

The KHDS 2010 data on enterprises (HHEnterprise2004.dta) can be linked to KHDS 2004 enterprise data (sec13.dta) by using the four-digit EntID04 and PID. The first two digits of EntID04 refer to the 2004 enterprise ID (entprid2) and the last two are the 2004 individual ID (id2). Finally, using PID and LinkIDs.dta, the data user can obtain the KHDS 2004 personal identifiers (i.e. hhid2+id2).

## Appendix A: Changes in the Food Consumption Section

ID	KHDS 2010 Food Item	KHDS 2004 Food Item	Note
<b>Food Consumption of Home Production (Crops)</b>			
01	Cooking bananas	Cooking bananas	
02		Sweet bananas	Dropped
03		Other bananas	Dropped
04	Cassava (raw)	Cassava (raw)	
05	Yams, coco yams or sweet potatoes	Yams, coco yams or sweet potatoes	
06		Irish potatoes	Dropped
07	Maize	Maize	
08	Millet or sorghum	Millet or sorghum	
09	Rice	Rice	
10		Tea, coffee or cocoa at home	Dropped
11	Beans, peas, cowpeas or other pulses	Beans, peas, cowpeas or other pulses	
12	Groundnuts	Groundnuts	
13		Home-made beer/brew/juice	Dropped
14		Sunflower seeds	Dropped
15		Bambaranuts	Dropped
16		Palm oil/oil palm	Dropped
17		Avocado, mangoes, pawpaw citrus fruits pineapples, passion fruits and other fruits	Dropped
18		Sugar, honey or sugar cane	Dropped
19		Tomatoes, Onions, leeks, green onions eggplant, bitter tomatoes, cabbage and other vegetables (cassava leaves, carrots, lettuce, etc.)	Replaced by new categories: [31]:"Tomatoes" and [32]:"Onions"
20		Spices (curry, red pepper, etc.)	Dropped
21		Other foods or crops (Specify)	Dropped
31	Tomatoes		New item
32	Onions		New item
<b>Food Consumption of Home Production (Animals Products)</b>			
22	All Eggs	Chicken eggs	Changed to "All Eggs"
23	Fresh milk	Fresh milk	
24		Yogurt, cheese or other milk product	Dropped
25	Fish	Fish	
26		Wild game, including game birds	Dropped
27		Edible insects	Dropped
<b>Food Expenditures, Seasonal Foods</b>			
01	Cooking bananas	Cooking bananas	
02		Sweet bananas	Dropped

ID	KHDS 2010 Food Item	KHDS 2004 Food Item	Note
03		Bananas in any other form	Dropped
04	Raw cassava	Raw cassava	
05	Dried cassava	Dried cassava	
06		Cassava in any other form	Dropped
07	Yams, coco yams, sweet potatoes	Yams, coco yams, sweet potatoes	
08	Irish potatoes	Irish potatoes	
09	Maize and its products	Maize	Changed to "Maize and its products"
10		Millet or sorghum, all forms	Dropped
11	Rice	Rice	
12	Beans, peas, cowpeas and other pulses	Beans, peas, cowpeas and other pulses	
13	Groundnuts	Groundnuts	
14		Sunflower seeds	Dropped
15		Bambaranuts	Dropped
16		Palm oil/oil palm	Dropped
17		Butter	Dropped
18		Margarine	Dropped
19		Avocado	Dropped
20		Mangoes	Dropped
21		Pawpaw	Dropped
22		Citrus fruits	Dropped
23		Pineapples	Dropped
24		Other fruits, including passion fruits	Dropped
25		Fruits juices	Dropped
26	Sugar	Sugar, candy, honey or sugar cane	Changed to "Sugar"
27	Tomatoes	Tomatoes	
28	Onions, leeks and green onions	Onions, leeks and green onions	
29		Eggplant and bitter tomatoes	Dropped
30		Pumpkin	Dropped
31		Cabbage	Dropped
32		Other vegetables (cassava leaves, carrots, spinach, okra, cauliflower, etc.)	Dropped
33		Spices (curry, red pepper, etc.)	Dropped
34	Fish	Fish	
35		Edible insects	Dropped
36	Eggs (all birds)	Eggs (all birds)	
37	Local alcoholic beverages consumed at home	Local alcoholic beverages consumed at home	
38	Fresh milk	Fresh milk	
39		Milk products (yogurt/cheese)	Dropped

<b>ID</b>	<b>KHDS 2010 Food Item</b>	<b>KHDS 2004 Food Item</b>	<b>Note</b>
40		Other foods or crops (Specify)	Dropped
<b>Food Expenditures, Non-seasonal Foods</b>			
01	Wheat flour, bread	Wheat flour, bread	
02	Macaroni and spaghetti	Macaroni and spaghetti	
03	Biscuits, cakes or buns	Biscuits, cakes or buns	
04	Other oils	Other oils	
05		Jams, jellies, marmalades, sweets	Dropped
06	Salt	Salt	
07	Chicken duck and other poultry	Chicken duck and other poultry	
08	Beef	Beef	
09	Mutton and goat	Mutton and goat	
10	Pork	Pork	
11		Baby food, excluding milk	Dropped
12	Sodas (coke, fanta, etc)	Sodas (coke, fanta, etc)	
13	Other alcoholic beverages consumed at home	Other alcoholic beverages consumed at home	
14		Yeast, baking powder	Dropped
15	Milk powder	Milk powder	
16		Tinned meats, fish, vegetables or fruits	Dropped
17		Other prepared foods consumed at home	Dropped
18		Other foods or crops (Specify)	Dropped

## Appendix B: Price Questionnaire Features

### *Items in the price questionnaire and their probability of selection*

Items in the price questionnaire

Code	Item	Probability of selection	Photo displayed
3001	1 kg of maize flour (sembe)	0.35	No
3002	Just one of the maandazi on this plate	0.35	Yes
3003	This piece of cassava in the picture	0.3	Yes
3004	This heap of sweet potatoes	0.25	Yes
3005	This bunch of bananas	0.35	Yes
3006	1 kg of sugar	0.35	No
3007	1 kg of dried beans	0.35	No
3009	This heap of tomatoes	0.25	Yes
3010	This heap of onions	0.25	Yes
3012	This heap of 1 kg of beef (mchanganyiko)	0.35	Yes
3013	This chicken in the picture	0.25	Yes
3014	An egg of a local chicken	0.25	No
3016	This dried fish	0.35	Yes
3017	1 litre of fresh milk (equivalent to 3 soda bottles)	0.35	No
3018	1 litre of cooking oil (equivalent to 3 soda bottles)	0.25	No
3019	1 bottle of fanta	0.25	No
3040	This kisadoline of charcoal in the picture	0.35	Yes
3041	1 litre of kerosene	0.3	No
3042	1 single box of matches as in the picture	0.25	Yes
3043	1 bar of soap as in the picture	0.25	Yes
3044	1 tube of toothpaste as in the picture	0.25	Yes
3045	1 pot of 25 cc lotion as in the picture	0.25	Yes
3046	One large size national/panasonic battery	0.6	No
3047	1 litre (equivalent to 2 beer bottles) of rubisi or equivalent cheap local brew not including distilled drinks	0.25	No
3048	1 kg of cassava flour	0.35	No
3049	1 kg of rice (grade 3)	0.35	No
3050	1 kg of irish potatoes	0.3	No
3051	10 small sweet bananas	0.25	No
3052	1 kg of Sorghum (seeds)	0.25	No
3053	1 kg of fresh, peeled groundnuts	0.25	No
3054	1 meter of Marekani shroud	0.25	No
3055	A heap of 4 oranges	0.25	No

*Photos used in the Price Questionnaire*

**Code 3002: Just one of the maandazi on this plate**



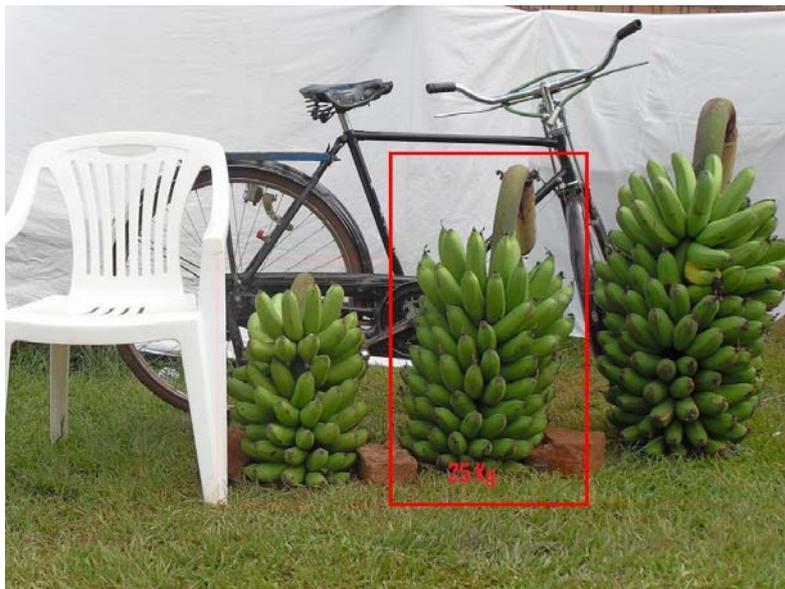
**Code 3003: This piece of cassava in the picture**



**Code 3004: This heap of sweet potatoes**



**Code 3005: This bunch of bananas**



**Code 3009: This heap of tomatoes**



**Code 3010: This heap of onions**



**Code 3012: This heap of 1 kg of beef (mchanganyiko)**



**Code 3013: This chicken in the picture**



Code 3016: This dried fish



Code 3040: This kisadoline of charcoal in the picture



Code 3042: 1 single box of matches as in the picture



Code 3043: 1 bar of soap as in the picture



Code 3044: 1 tube of toothpaste as in the picture



Code 3045: 1 pot of 25 cc lotion as in the picture



## **Appendix C: List of Related Documents**

The following KHDS 2010 documents can be obtained from the World Bank, Rockwool Foundation, and EDI:

- [KHDS 2010 Questionnaires](#): Household Questionnaire, Wedding Questionnaire, Mortality Questionnaire, and Sibling Roster Questionnaire.
- [KHDS 2010 Tracking Form](#): Form used to collect information on panel respondents who have moved and how to track them.
- [KHDS2010 Questionnaire Report](#): The Questionnaire Report summarizes the key questionnaire content as used in the field: the questions, translations, interviewer instructions, skip descriptions, and variable codes.
- [KHDS 2010 Interviewer Manual](#)