

# Measuring the Contribution of Livestock to Household Livelihoods

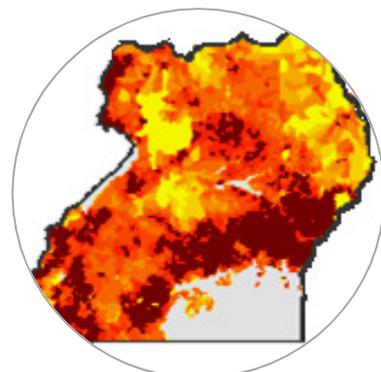
## A Livestock Module for Multi-topic Household Surveys

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SECTION 1A: HOUSEHOLD IDENTIFICATION PARTICULARS	
1. District Name and Code	
2. County/Municipality	
Sub-County/Division/Town Council	
Upsh/Ward	
Urban = 1, Other Urban = 2, Rural = 3	



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## ABSTRACT

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About 60 percent of rural households in developing countries are estimated to fully or partly depend on livestock for their livelihoods. Available household level livestock data, however, are insufficient to appreciate the contribution of livestock to household livelihoods, including both the monetary and non-monetary benefits provided by farm animals. This challenges the design and implementation of effective investments in the sector. This paper presents a livestock module for multi-topic household surveys, which targets improved livestock-related questions therein. The livestock module for multi-topic household surveys has been jointly elaborated by the FAO, the ILRI (International Livestock Research Institute) and the World Bank, as part of the Livestock Data for Better Policies in Africa Project. It consists of a core set of questions, which quantify both livestock herd and the various contributions of farm animals to household livelihoods, including cash income, food, manure, draft power and hauling services, savings and insurance, and social capital. It then includes additional detailed questions on livestock characteristics (e.g. breeding, branding, etc.), husbandry practices (e.g. feeding, watering, etc.) and outputs (e.g. milk, dung, etc.) which, depending on the country, may or may not be included in multi-topic household surveys. The module is a public good, which has been used to develop multi-topic household questionnaires in collaboration with country governments in Niger, Tanzania and Uganda. Data from these surveys will be freely available for analysis in 2012 and 2013, providing an unprecedented opportunity to enhance the understanding of the livestock-poverty-wellbeing linkages at the household level.

**Key words:** household survey, livestock, livestock module

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## 1. INTRODUCTION

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The Global Strategy to Improve Agricultural and Rural Statistics builds on a conceptual framework which ‘brings together the economic, environmental, and social dimensions of agriculture and the cause-and-effect relationships that connect them. These relate to agricultural production and extend to processing and markets as well as income distribution, accumulation, and consumption’ (World Bank, 2011). At the micro level, multi-topic household surveys, which consist of several questionnaires that collect information on many aspects of household wellbeing and behaviour, are an essential tool to collect data on the various dimensions of agriculture and understand their correlations and linkages. This is critical to design policies that maximize the benefits while mitigating the negative externalities of agricultural sector’s growth.

This paper presents a livestock module – jointly developed by the World Bank-FAO-ILRI Livestock Data Innovation in Africa Project (LDIP, [www.africalivestockdata.org](http://www.africalivestockdata.org)) and the Living Standards Measurement Study Integrated Surveys on Agriculture Project of the World Bank (LSMS-ISA, [www.worldbank.org/lsms-isa](http://www.worldbank.org/lsms-isa)) – for the adequate inclusion of livestock in multi-topic household surveys, which serves to enhance the quantity and quality of livestock data available to decision makers. There is in fact consensus that livestock sector development can contribute to poverty reduction and economic growth, as about 60 percent of rural households in developing countries are estimated to depend on livestock for all or part of their livelihoods, and population growth, urbanization and gains in real per capita income are fuelling a growing demand for high-value foods, including meat and dairy products (FAO, 2009). This provides good business opportunities for livestock producers. At the same time, however, available livestock data are scant at best, and inadequate to appreciate the role of livestock in the household economy and the incentives and disincentives that guide households’ livestock production and consumption decisions. For example, a cursory review of multi-topic household surveys reveals that, in most cases, these contain few livestock-related questions, and mostly on ownership of farm animals and their diseases. Improving the quantity and quality of household-level livestock data available to decision makers is thus a pre-condition to design and implement investments in the sector which are both equitable and efficient.

Section two and three present the rationales for a focus on multi-topic household surveys and on livestock respectively. Section four highlights the key features of the livestock module, while section five presents current and forthcoming efforts towards the implementation of the livestock module. The appendix contains, as an example, the livestock module administered in the context of the Uganda 2011/12 national household panel survey.

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## 2. WHY MULTI-TOPIC HOUSEHOLD SURVEYS?

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Reliable and up-to-date data from multi-topic household surveys are critical for governments to measure poverty, assess household wellbeing, and model household behaviour to evaluate ex-ante and ex-post outputs and impacts of public and private sector investments.

Multi-topic household surveys consist of several questionnaires that collect information on many aspects of household wellbeing and behaviour. They usually include a household questionnaire, a community questionnaire, a price questionnaire and, in some cases, an agriculture questionnaire. Each questionnaire consists of several modules focusing on key dimensions which characterize households. For instance, the household questionnaire comprises modules on education, health, and

other; the agriculture questionnaire includes modules on access to land, crops and other. Multi-topic household surveys are usually administered to a nationally representative, but relatively small sample of households, usually between 2,000 and 5,000 households, which allows producing accurate statistics for the country as a whole and for large sub-areas (e.g. rural and urban areas; macro-regions) (Grosh and Glewwe, 1995).

The adequate inclusion of all dimensions and determinants of livelihoods in multi-topic household surveys is thus essential for deriving appropriate measures of wellbeing and input into effective investment design, implementation and evaluation.

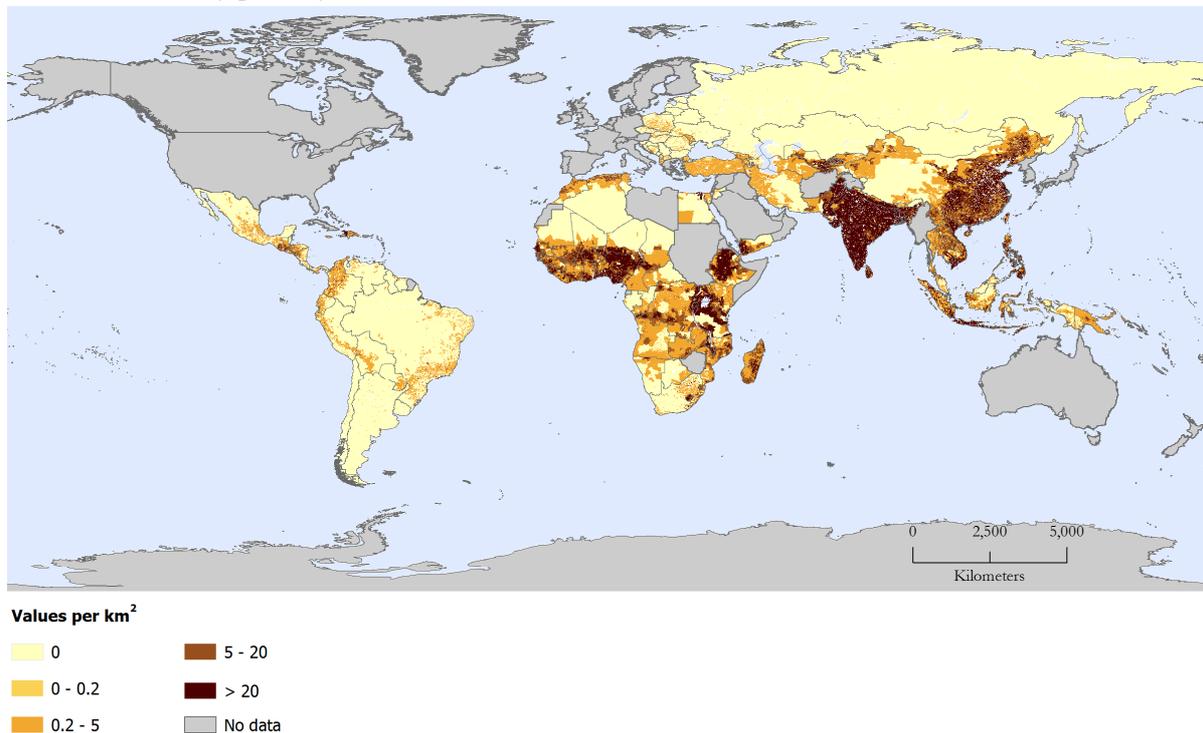
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### 3. WHY LIVESTOCK?

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A large share of rural households in developing countries are partly or fully dependent on livestock for their livelihoods. Household-level data from 12 developing countries in Africa, Asia and Latin America show that between 46 to 85 percent of rural households keep some farm animals, with a country average of about 60 percent (Pica-Ciamarra et al., 2011). Many of them are poor, which implies that increasing the contribution of livestock to their livelihoods can directly contribute to the goal of reducing poverty worldwide.

**Figure 1.** Distribution (density) of poor livestock keepers in 2010 based on the international \$2/day poverty line



Source: drawn from data provided in Robinson *et al.* (2011).

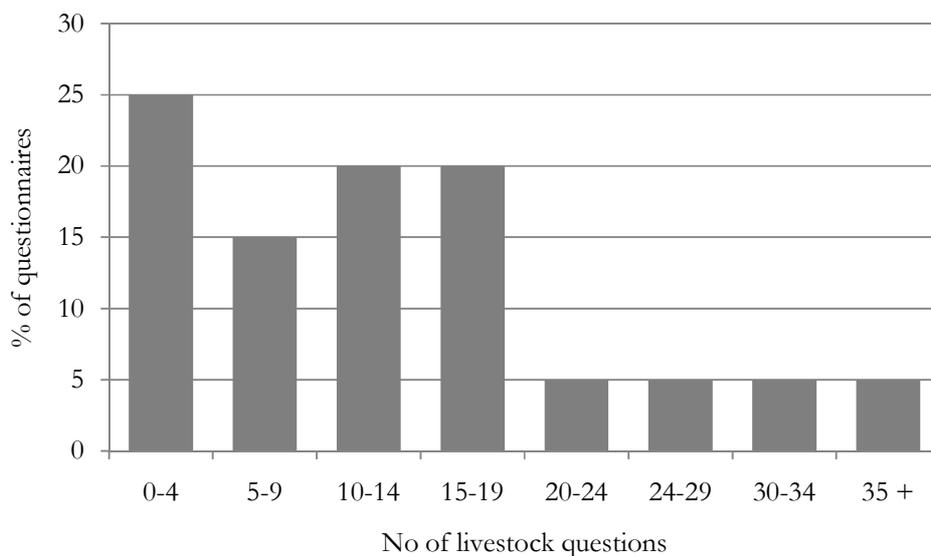
Livestock keeping is a multi-functional activity in developing countries: farm animals generate food and income, are a store of wealth and act as a safety net in times of crisis. They provide draught

power and hauling services, manure, fuel and building material, make use of crop and food wastes and contribute to social capital (FAO, 2009).

Reliable measures of household wellbeing and behavioural models aimed at understanding the role of livestock in the household economy should ideally capture the value of the many livelihood services provided by livestock. A review, however, of existing multi-topic household survey questionnaires reveal that livestock is inadequately represented: questions typically focus on livestock ownership and only infrequently inquire about animal health / diseases, and on production and consumption of animal foods. Insights into investment opportunities are challenged by lack of questions on animal breeds, feed, water, housing, draught power, transport and on the use of livestock dung.

The number of livestock-related questions in multi-topic household survey questionnaires, such as those available on the website of the International Household Survey Network (IHSN, [www.ihsn.org](http://www.ihsn.org)), is a crude, yet revealing indicator of the limited availability of data to fully appreciate the role of livestock in the household economy.

**Figure 2.** Number of livestock-related question in ‘IHSN’ multi-topic household survey questionnaires



Source: elaborated from [www.ihsn.org](http://www.ihsn.org)

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#### 4. A LIVESTOCK MODULE FOR MULTI-TOPIC HOUSEHOLD SURVEYS

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The World Bank-FAO-ILRI Livestock Data Innovation in Africa Project (LDIP) and the Living Standards Measurement Study Integrated Surveys on Agriculture Project of the World Bank (LSMS-ISA) have identified about 200 livestock-related questions – a so-called livestock module – for the adequate inclusion of livestock in multi-topic household surveys. The module consists of 3 domains, which cover livestock ownership; livestock inputs; and livestock outputs. These three domains are sub-divided in independent sub-sections, allowing planners, based on their priorities, the flexibility to select the sections and specific questions to include in the multi-topic household surveys. Most

sections of the livestock module include questions on the use of family and non-family labour and on the role of women in livestock-keeping.

The implementation of the livestock module would allow quantifying with some statistical precision the contribution of livestock to household livelihoods. It allows:

- measuring the quantity and value of outputs, which include milk, meat and eggs and other by-products, draught power and hauling services and dung;
- measuring the quantity and value of inputs, including feed, water, family and hired labour, veterinary services and other;
- assessing changes in quantity and value of livestock stock, in the form of animal purchases and sales; reproduction, maturation and death; and other such as thefts and gifts.
- investigating determinants in the livestock-livelihoods equation.

**Table 1.** Content of livestock module for multi-topic household surveys

Livestock domain	Sections	Remarks
Livestock ownership	Number of animals	Questions are asked for individual animals, often differentiated by age, gender and breeds (local/indigenous and improved/exotic), which helps to understand basic features of herd structure and provide input into herd growth models
	Change in stock in past 12 months	
Inputs and husbandry practices	Breeding	Questions are asked for major groups of animals (e.g. large ruminants, small ruminants, pigs, poultry birds, equines, other), as management practices usually do not differ between animals of the same species
	Feeding	
	Watering	
	Animal health	
	Housing	
Monetary and non monetary outputs	Meat production	Questions are asked for major groups of animals, with outputs associated with specific groups of animals.
	Egg production	
	Milk production	
	Animal power	
	Dung	

## 5. IMPLEMENTING THE LIVESTOCK MODULE: ONGOING EFFORTS AND THE WAY FORWARD

The Livestock Module has been so far used to provide inputs into developing, in collaboration with national governments, the agriculture questionnaires of multi-topic household surveys of three sub-Saharan African countries: Niger, Uganda and, to a lesser extent, Tanzania. Data from the Niger Enquête Nationale sur Les Conditions de Vie des Ménages 2011/12, the Uganda National Panel Survey 2011/12 and the Tanzania National Panel Survey 2010/11 will be freely available for analysis by all stakeholders in 2012/13. The Livestock Module for the Uganda National Panel Survey 2011/12 is presented in the appendix.

The Uganda and Niger surveys will generate the most comprehensive household-level livestock data available, thus facilitating the analysis and documentation of the many connections between livestock and livelihoods. These insights are expected to significantly enhance our understanding of the role of livestock in the household economy.

The inclusion of livestock into multi-topic household survey questionnaires depends on the country's priorities and resources, and should be balanced, accommodating the importance attributed to other modules of the questionnaires – perhaps access to water for livestock in temperate countries is not a priority or information on pig production systems in Muslim countries. For instance, neither the Niger nor the Uganda agriculture questionnaire includes the entire livestock module, but only selected sections, and questions, which though cover several dimensions of livestock keeping. Ultimately, selection of sections and questions of the module is a prerogative of country planners.

The Livestock Data Innovation in Africa Project and the Living Standards Measurement Study – Integrated Surveys on Agriculture Project have been developing, in parallel to the extended livestock module, a medium-size as well as a condensed livestock module. This diversity makes it easier for planners to identify and select critical and relevant questions which allow policy makers access to data and analysis facilitating effective and targeted investments for the sector. The extended livestock module, the medium-size livestock module and the condensed livestock module will be made publicly and freely available in 2012.

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## **Appendix 1**

### **The Livestock Module in the Agriculture Questionnaire of the Uganda 2011/2012 National Panel Survey**

### Section 1. Cattle and Pack Animals

Has any member of your household raised or owned cattle and pack animals during the last 12 months?	Type of livestock	Livestock code	During the last 12 months, has any member of your household raised or owned any [...]	How many [...] are owned by your household now (present at your farm or away)?	Who owns the [...]?			Who keeps the [...] that your household owns?		How many [...] are kept but not owned by your household now?	Who keeps the [...] that your household keeps but not owns?	
1 = yes 2 = no >> next section			1 = yes 2 = no (>> next animal)	Number (if none write 0, go to 4a)	Records Person ID no. of up to two members		Records Person ID no. of up to two members		Number (if none write 0, go to 5a)	Records Person ID no. of up to two members		
<b>1</b>			<b>2</b>	<b>3a</b>	<b>3b</b>	<b>3c</b>	<b>3d</b>	<b>3e</b>	<b>4a</b>	<b>4b</b>	<b>4c</b>	
	<b>EXOTIC/CROSS</b>											
	Calves	1										
	Bulls	2										
	Oxen	3										
	Heifers	4										
	Cows	5										
	<b>INDIGENOUS</b>											
	Calves	6										
	Bulls	7										
	Oxen	8										
	Heifers	9										
	Cows	10										
	Donkeys / mules	11										
	Horses	12										

**Section 1. Cattle and Pack Animals (cont.)**

Type of livestock	Livestock code	Has your household hired any labour for keeping / herding [...] in the last 12 months?	What is the main type of labour employed while keeping [...]?	How much did you pay to the paid labour for keeping /herding [...] in the last 12 months?	How many [...] did you own exactly 12 months ago (present or away)	During the last 12 months, how many [...] were born or graduated to?	During the last 12 months, how many were received as gift or payment for some service provided?	During the last 12 months, how many were given away as gift or payment for some service received?	During the last 12 months, how many [...] were lost to theft?
		day/month (if none write 0 >> 6)	1 = Family 2 = Hired Casual 3 = Hired Permanent	US\$	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)
		<b>5a</b>	<b>5b</b>	<b>5c</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>EXOTIC/CROSS</b>									
Calves	1								
Bulls	2								
Oxen	3								
Heifers	4								
Cows	5								
<b>INDIGENOUS</b>									
Calves	6								
Bulls	7								
Oxen	8								
Heifers	9								
Cows	10								
Donkeys / mules	11								
Horses	12								

### Section 1. Cattle and Pack Animals (cont.)

Type of livestock	Livestock code	During the last 12 months, how many [...] were lost to injury / accident / natural calamity?	During the last 12 months, how many [...] were lost to disease?	Did you buy any [...] to raise during the last 12 months?	What was, on average, the value of each [...] bought?	Did you sell any alive [...] during the last 12 months	What was, on average, the value of each [...] sold?	Did you slaughter any [...] during the last 12 months?	What is the main purpose of livestock products originating from [...]?
		number (write 0 if none)	number (write 0 if none)	number (write 0 if none)	Ush	number (write 0 if none)	Ush	number (write 0 if none)	1 = Subsistence 2 = Commercial 3 = Other (specify)
		<b>11</b>	<b>12</b>	<b>13a</b>	<b>13b</b>	<b>14a</b>	<b>14b</b>	<b>15</b>	<b>16</b>
<b>EXOTIC/CROSS</b>									
Calves	1								
Bulls	2								
Oxen	3								
Heifers	4								
Cows	5								
<b>INDIGENOUS</b>									
Calves	6								
Bulls	7								
Oxen	8								
Heifers	9								
Cows	10								
Donkeys / mules	11								
Horses	12								

## Section 2. Small Animals

Has any member of your household raised or owned small animals during the last 6 months?	Type of livestock	Livestock code	During the last 6 months, has any member of your household raised or owned any [...]	How many [...] are owned by your household now (present at your farm or away)?	Who owns the [...]		Who keeps the [...]		How many [...] are kept but not owned by your household now?	Who keeps the [...] that your household keeps but not owns?	
1 = yes 2 = no >> next section			1 = yes 2 = no (>> next animal)	Number (if none write 0, go to 4a)	Records Person ID no. of up to two members		Records Person ID no. of up to two members		Number (if none write 0, go to 5a)	Records Person ID no. of up to two members	
1			2	3a	3b	3c	3d	3e	4a	4b	4c
	<b>EXOTIC/CROSS</b>										
	Male goats	13									
	Female goats	14									
	Male sheep	15									
	Female sheep	16									
	Pigs	17									
	<b>INDIGENOUS</b>										
	Male goats	18									
	Female goats	19									
	Male sheep	20									
	Female sheep	21									
	Pigs	22									

## Section 2. Small Animals (cont.)

Type of livestock	Livestock code	Has your household hired any labour for keeping / herding [...] in the last 6 months?	What is the main type of labour employed while keeping [...]	How much did you pay for keeping /herding [...] in the last 6 months?	How many [...] did you own exactly 6 months ago (present or away)	During the last 6 months, how many [...] were born?	During the last 6 month, how many [...] were received as gift or payment for some service provided?	During the last 6 months, how many [...] were given away as gift or payment for some service received?	During the last 6 months, how many [...] were lost to theft?
		day/month (if none write 0 >> 6)	1 = Family 2 = Hired Casual 3 = Hired Permanent	UgSh	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)
		<b>5a</b>	<b>5b</b>	<b>5c</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>EXOTIC/CROSS</b>									
Male goats	13								
Female goats	14								
Male sheep	15								
Female sheep	16								
Pigs	17								
<b>INDIGENOUS</b>									
Male goats	18								
Female goats	19								
Male sheep	20								
Female sheep	21								
Pigs	22								

**Section 2. Small Animals (cont.)**

Type of livestock	Livestock code	During the last 6 months, how many [...] were lost to injury / accident / natural calamity?	During the last 6 months, how many [...] were lost to disease?	Did you buy any [...] to raise during the last 6 months?	What was, on average, the value of each [...] bought?	Did you sell any alive [...] during the last 6 months	What was, on average, the value of each [...] sold?	Did you slaughter any [...] during the last 6 months?	What is the main purpose of livestock products originating from [...]?
		number (write 0 if none)	number (write 0 if none)	number (write 0 if none)	Ush	number (write 0 if none)	Ush	number (write 0 if none)	1 = Subsistence 2 = Commercial 3 = Other (specify)
		<b>11</b>	<b>12</b>	<b>13a</b>	<b>13b</b>	<b>14a</b>	<b>14b</b>	<b>15</b>	<b>16</b>
<b>EXOTIC/CROSS</b>									
Male goats	13								
Female goats	14								
Male sheep	15								
Female sheep	16								
Pigs	17								
<b>INDIGENOUS</b>									
Male goats	18								
Female goats	19								
Male sheep	20								
Female sheep	21								
Pigs	22								

### Section 3. Poultry and Others

Has any member of your household raised or owned poultry, bees or other domesticated birds during the last 3 months?	Type of livestock	Livestock code	During the last 3 months, has any member of your household raised or owned any [...]	How many [...] are owned by your household now (present at your farm or away)?	Who owns the [...]			Who keeps the [...]		How many [...] are kept but not owned by your household now?	Who keeps the [...] that your household keeps but not owns?	
1 = yes 2 = no >> next section			1 = yes 2 = no (>> next animal)	if zero, go to 4a	Records Person ID no. of up to two members			Records Person ID no. of up to two members		Number (if none write 0, go to 5a)	Records Person ID no. of up to two members	
1			2	3a	3b	3c	3d	3e	4a	4b	4c	
	Indigenous dual-purpose chicken	23										
	Layers (exotic/cross chicken)	24										
	Broilers (Exotic/cross chicken)	25										
	Other poultry and birds (turkeys / ducks / geese)	26										
	Rabbits	27										
	Beehives	28										

### Section 3. Poultry and Others (cont.)

Type of livestock	Livestock code	Has your household hired any labour for keeping / herding [...] in the last 3 months?	What is the main type of labour employed while keeping [...]?	How much did you pay for keeping /herding [...] in the last 3 months?	How many [...] did you own exactly 3 months ago (present or away)	During the last 3 months, how many [...] were born?	During the last 3 months, how many [...] were received as gift or payment for some service provided?	During the last 3 months, how many [...] were given away as gift or payment for some service received?	During the last 3 months, how many [...] were lost to theft?	During the last 3 months, how many [...] were lost to injury / accident / natural calamity?
		day/month (if none write 0 >> 6)	1 = Family 2 = Hired Casual 3 = Hired Permanent	UgSh	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)	number (write 0 if none)
		<b>5a</b>	<b>5b</b>	<b>5c</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
Indigenous dual-purpose chicken	23									
Layers (exotic/cross chicken)	24									
Broilers (Exotic/cross chicken)	25									
Other poultry and birds (turkeys / ducks / geese)	26									
Rabbits	27									
Beehives	28									

### Section 3. Poultry and Others (cont.)

Type of livestock	Livestock code	During the last 3 months, how many [...] were lost to disease?	Did you buy any [...] to raise during the last 3 months?	What was, on average, the value of each [...] bought?	Did you sell any alive [...] during the last 3 months	What was, on average, the value of each [...] sold?	Did you slaughter any [...] during the last 3 months?	What is the main purpose of livestock products originating from [...]?
		number (write 0 if none)	number (write 0 if none)	Ush	number (write 0 if none)	Ush	number (write 0 if none)	1 = Subsistence 2 = Commercial 3 = Other (Specify)
		<b>12</b>	<b>13a</b>	<b>13b</b>	<b>14a</b>	<b>14b</b>	<b>15</b>	<b>16</b>
Indigenous dual-purpose chicken	23							
Layers (exotic/cross chicken)	24							
Broilers (Exotic/cross chicken)	25							
Other poultry and birds (turkeys / ducks / geese)	26							
Rabbits	27							
Beehives	28							

### Section 4. Inputs

Type of livestock species	Animal group code	Breeding			Feeding				
		Has this household practiced any controlled mating or other breeding strategy for [...] in the past 12 months	What have been the main controlled mating or other breeding strategies used by this household for [...] in the past 12 months?  See breeding code		What have been for this household the major feeding practices for [...] in the last 12 months?  List two main	Has this household ever paid to feed its [...] in the past 12 months?	In which months?	How much has this household paid to feed the [...] in the past 12 months?	
		1 = yes 2 = no (>>2a)	1st	2nd	1 = only grazing / scavenging 2 = mainly grazing / scavenging with some feeding 3 = mainly feeding with some grazing / scavenging 4 = only feeding (zero grazing / scavenging) 5 = Tethering 6 = other (specify)	1 = yes 2 = no (>> 3a)	month codes (circle as appropriate)	Ush  (write 0 if nothing)	
		<b>1a</b>	<b>1b</b>	<b>1c</b>	<b>2a</b>	<b>2b</b>	<b>2c</b>	<b>2d</b>	<b>2e</b>
<b>EXOTIC/CROSS</b>									
Large ruminants	101							1 2 3 4 5 6 7 8 9 10 11 12	
Small ruminants	102							1 2 3 4 5 6 7 8 9 10 11 12	
Poultry	103							1 2 3 4 5 6 7 8 9 10 11 12	
Pigs	104							1 2 3 4 5 6 7 8 9 10 11 12	
<b>INDIGENOUS</b>									
Large ruminants	105							1 2 3 4 5 6 7 8 9 10 11 12	
Small ruminants	106							1 2 3 4 5 6 7 8 9 10 11 12	
Poultry	107							1 2 3 4 5 6 7 8 9 10 11 12	
Pigs	108							1 2 3 4 5 6 7 8 9 10 11 12	

### Section 4. Inputs (cont.)

		Watering						Housing
Type of livestock species	Animal group code	How frequently, on average, has this household watered [...] in the past 12 months?	What have been the main two sources of water for [...] in the past 12 months?  List two main		Has this household ever paid to water [...] in the past 12 months?	In which months?	How much has this household paid to access the main water sources for [...] in the past 12 months?	What housing system for [...] has this household mainly used in the past 12 months?
		1 = animals get on their own from available sources 2 = once a day 3 = twice a day 4 = thrice a day 5 = throughout the day 6 = other (specify)	1 = tap water 2 = borehole 3 = dam 4 = well 5 = river 6 = spring 7 = stream 8 = constructed water points 9 = rainwater harvesting 10 = other (specify)		1 = yes 2 = no (>> 4)	month codes (circle as appropriate)	Ush  (write 0 if nothing)	1 = none 2 = confined in sheds 3 = confined in paddocks 4 = confined fences 5 = cage 6 = basket 7 = other (specify)
		<b>3a</b>	<b>3b</b>	<b>3c</b>	<b>3d</b>	<b>3e</b>	<b>3f</b>	<b>4</b>
<b>EXOTIC/CROSS</b>								
Large ruminants	101					1 2 3 4 5 6 7 8 9 10 11 12		
Small ruminants	102					1 2 3 4 5 6 7 8 9 10 11 12		
Poultry	103					1 2 3 4 5 6 7 8 9 10 11 12		
Pigs	104					1 2 3 4 5 6 7 8 9 10 11 12		
<b>INDIGENOUS</b>								
Large ruminants	105					1 2 3 4 5 6 7 8 9 10 11 12		
Small ruminants	106					1 2 3 4 5 6 7 8 9 10 11 12		
Poultry	107					1 2 3 4 5 6 7 8 9 10 11 12		
Pigs	108					1 2 3 4 5 6 7 8 9 10 11 12		

**Section 4. Inputs (cont.)**

		<b>Animal health</b>						
Type of livestock species	Animal group code	Has this household vaccinated any [...] in the past 12 months?	Who administered the vaccination services for you [...]?	Against which diseases did you vaccinate your [...]?	What was the total cost of vaccination, including vaccine and professional fee	During the last 12 months have you used dewormin) on your [...]?	Who administered the dewormer treatment to your [...]?	What was the total cost for deworming, including cost of dewormer and professional fee?
		1 = yes, all animals at least once 2 = some, some animals 3 = none, no animals (>>6a)	1 = Private Vet clinic 2 = District Vet clinic 3 = NGO / Project 4 = Other (specify)	See disease code	Ush (write 0 if provided for free)	1 = yes, all animals at least once 2 = some, some animals 3 = none, no animals (>>7a)	1 = Private Vet clinic 2 = District Vet clinic 3 = NGO / Project 4 = Other (specify)	Ush (write 0 if provided for free)
		<b>5a</b>	<b>5b</b>	<b>5c</b>	<b>5d</b>	<b>6a</b>	<b>6b</b>	<b>6c</b>
<b>EXOTIC/CROSS</b>								
Large ruminants	101							
Small ruminants	102							
Poultry	103							
Pigs	104							
<b>INDIGENOUS</b>								
Large ruminants	105							
Small ruminants	106							
Poultry	107							
Pigs	108							

### Section 4. Inputs (cont.)

		<b>Animal health (cont.)</b>					
Type of livestock species	Animal group code	During the last 12 months have your [...] been treated against ticks?	Who administered the tick treatment to your [...]	What was the total cost of the treatment of [...] against ticks, including cost of drugs and professional fee?	During the last 12 months have your [...] receive some curative treatments?	Who administered the curative treatment to your [...]	What was the total cost of the curative treatment for [...], including cost of drugs and professional fee?
		1 = yes, all animals at least once 2 = some, some animals 3 = none, no animals (>>8a)	1 = Private Vet clinic 2 = District Vet clinic 3 = NGO / Project 4 = Other (specify)	Ush (write 0 if provided for free)	1 = yes, all animals at least once 2 = some, some animals 3 = none, no animals (>>next line)	1 = Private Vet clinic 2 = District Vet clinic 3 = NGO / Project 4 = Other (specify)	Ush (write 0 if provided for free)
		<b>7a</b>	<b>7b</b>	<b>7c</b>	<b>8a</b>	<b>8b</b>	<b>8c</b>
<b>EXOTIC/CROSS</b>							
Large ruminants	101						
Small ruminants	102						
Poultry	103						
Pigs	104						
<b>INDIGENOUS</b>							
Large ruminants	105						
Small ruminants	106						
Poultry	107						
Pigs	108						

### Section 5. Meat production

Type of livestock species	Animal group code	How many [...] were slaughtered for meat in the last 12 months?	What was the live weight, on average, of the [...] that this household slaughtered?	How much of the meat of [...] produced did you sell in the past 12 months?	Where/to whom do you mainly sell [...] meat?	How much has this household earned by selling [...] meat in the past 12 months?	Who controls the revenue from this product	
		number (if 0 go to next line)  <i>cross-check with sec1 q15; sec2 q15 sec3 q15</i>	kg/hd	kg	1 = Government / LC 2 = Private trader in local market / village 3 = Private trader in district market 4 = Consumer at market 5 = Neighbour / Relative 6 = Other (specify)	US\$	Record Person Id Nos (Up to 2 Ids)	
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6a</b>	<b>6b</b>
<b>EXOTIC/CROSS</b>								
Large ruminants	101							
Small ruminants	102							
Poultry	103							
Pigs	104							
<b>INDIGENOUS</b>								
Large ruminants	105							
Small ruminants	106							
Poultry	107							
Pigs	108							

### Section 6. Milk production

Type of livestock species	Animal group code	How many [...] were milked in the last 12 months?	How many days, on average, were [...] milked for?	What was the average [...] milk production per day per milking animal?	In general, were your [...] suckling during the time the [...] were being milked?	How much of the milk produced by [...] was consumed by your household either in the form of milk or processed dairy products in the last 12 months?	How much of the milk produced by [...] did you convert into processed dairy products in the last 12 months?
		number (if zero go to next line)	number of days	litres	0 = no calf 1 = intermittent suckling 2 continuous suckling	litres	litres
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>EXOTIC/CROSS</b>							
Large ruminants	101						
Small ruminants	102						
<b>INDIGENOUS</b>							
Large ruminants	105						
Small ruminants	106						

**Section 6. Milk production (cont.)**

Type of livestock species	Animal group code	How many litres of [...] milk did you sell in the last 12 months?	Where/to whom do you mainly sell your [...] milk?	How much has this household earned by selling [...] milk in the past 12 months?	Who controls the revenue from this product	
		number (if zero go to next line)	1 = Government / LC 2 = Private trader in local market / village 3 = Private trader in district market 4 = Consumer at market 5 = Neighbour / Relative 6 = Other (specify)	Ush	Record Person ID (Up to 2 Ids)	
		<b>7</b>	<b>8</b>	<b>9</b>	<b>10a</b>	<b>10b</b>
<b>EXOTIC/CROSS</b>						
Large ruminants	101					
Small ruminants	102					
<b>INDIGENOUS</b>						
Large ruminants	105					
Small ruminants	106					

### Section 7. Egg production

Type of livestock species	Animal group code	How many [...] laid eggs in the last 3 months?	How many [...] eggs did you produce in the last 3 months?	How many [...] eggs did you sell in the last 3 months?	Where/to whom do you mainly sell your [...] eggs?	How much has this household earned by selling [...] eggs in the past 3 months?	Who controls the revenue from [...] eggs?	
		number (if zero go to next line)	number (if zero go to next line)	number (if zero go to next line)	1 = Government / LC 2 = Private trader in local market / village 3 = Private trader in district market 4 = Consumer at market 5 = Neighbour / Relative 6 = Other (specify)	Ush	Record Person Id Nos (Up to 2 Ids)	
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6a</b>	<b>6b</b>
<b>EXOTIC/CROSS</b>								
Poultry	103							
<b>INDIGENOUS</b>								
Poultry	107							

### Section 8. Dung

Type of livestock species	Animal group code	Has this household made any use of the dung produced by [...] in the past 12 months?  List two main uses		What was the total value from the sales of dung from [...] in the past 12 months?
		1 = manure >> next line 2 = fuel (cooking) >> next line 3 = feed to other animals >> next line 4 = construction of building >> next line 5 = sales 6 = no, no use >> next line 7 = other (specify) >> next line		Ush
		1a	1b	1c
<b>EXOTIC/CROSS</b>				
Large ruminants	101			
Small ruminants	102			
Poultry	103			
Pigs	104			
<b>INDIGENOUS</b>				
Large ruminants	105			
Small ruminants	106			
Poultry	107			
Pigs	108			

### Section 9. Animal power

Type of livestock species	Animal group code	Has this household used any of its [...] for its own transport (persons, crops, etc.) in the past 12 months?	Has this household used any of its [...] to provide transport services to other households?	How much has this household earned by providing transport services with [...] in the past 12 months?	Has this household used any of its [...] for ploughing its own field in the past 12 months?	Has this household used any [...] to provide draught power for ploughing to other households?	How much has this household earned in cash / kind by providing draught power for ploughing with [...] in the past 12 months?
		1 = yes 2 = no	1 = yes 2 = no >> 4	Ush	1 = yes 2 = no	1 = yes 2 = no >> next line	Ush (estimated value of in-kind benefits)
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>EXOTIC/CROSS</b>							
Large ruminants	101						
Small ruminants	102						
<b>INDIGENOUS</b>							
Large ruminants	105						
Small ruminants	106						
Donkey/mules	109						
Horses	110						

## Breeding and Disease Codes

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Breeding codes	Disease codes
1 None	1 FMD
2 Controlled mating – best male(s) from herd	2 CBPP
3 Controlled mating – to avoid mating of close relatives	3 CCPP
4 Controlled mating – other (e.g. corrective)	4 LSD
5 Use of high quality breeding male from neighbor, other supplier	5 Anthrax
6 Exchange of high quality breeding male	6 Blackleg
7 Purchase of high quality breeding male	7 PPR
8 Artificial insemination - cross breeding	8 Sheep and goat pox
9 Artificial insemination - same breed	9 Newcastle disease
10 Purchase of high quality breeding female(s)	10 Fowl pox
11 Castrate non-productive males	11 Avian flu
12 Culled/sold non-productive males	12 IBD / Gumboro
13 Culled/sold non-productive females	13 Other (specify)
14 Cross-breeding - own herd	14 Do not know
15 Cross-breeding - male from neighbor, other supplier	
16 Other (specify)	

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