



REPUBLIC OF ZAMBIA

MINISTRY OF FISHERIES
AND LIVESTOCK

MINISTRY OF FINANCE
AND NATIONAL PLANNING



2022 LIVESTOCK SURVEY REPORT





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THE 2022 LIVESTOCK SURVEY REPORT

Ministry of Fisheries and Livestock
Zambia Statistics Agency
Lusaka, 2022



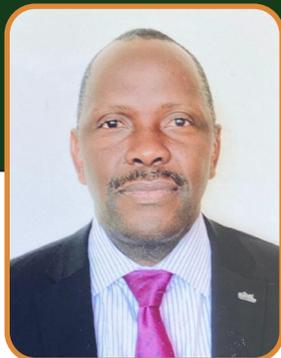




FOREWORD AND ACKNOWLEDGEMENT



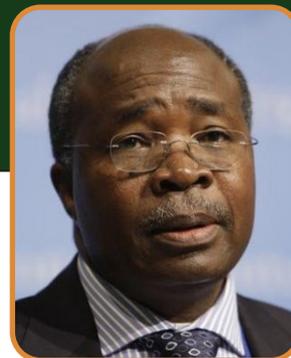
Foreword



The Government of the Republic of Zambia places emphasis on evidence-based planning, monitoring and evaluation as a basis for implementing programmes being undertaken across all sectors and also as a way of measuring their impact. In order to achieve this, quality statistics are necessary. Livestock Statistics are, therefore, important in revealing sector performance against set targets as well as assessing the contribution of the subsector to the National Gross Domestic Product (GDP). Updated and accurate livestock statistics also assist the country to accurately report and provide evidence-based information on key programmes such as the National Agricultural Implementation Plan (NAIP), National Development Plans, Vision 2030, the Malabo Declaration and the Sustainable Development Goals (SDGs), among others. Furthermore, quality statistics are needed to show the importance and relevance of the livestock sector with respect to employment creation, incomes and livelihoods of households.

A handwritten signature in black ink, appearing to read 'Makozo Chikote'.

Hon. Makozo Chikote, MP
Minister of Fisheries and Livestock



The 2017/18 Livestock and Aquaculture Census that was conducted in 2018 provided information for smooth policy formulation and baseline indicators for the future surveys. Government is, however, cognizant of the fact that the information obtained has since become outdated and going forward, having updated livestock information, through surveys such as this 2022 survey, will remain a top priority for the Government.

It is our sincere hope, therefore, that the results of the 2022 Livestock Survey, will be used to measure the performance of the economy with respect to the Livestock sub-sector's contribution as well as an input into gauging what kind of policy actions will need to be implemented in the future. Finally, the survey results will assist policy makers to make informed decisions, allocate resources appropriately, justify investment in the subsector and ultimately assist the development of the livestock industry.

A handwritten signature in black ink, appearing to read 'Situmbeko Musokotwane'.

Hon. Dr. Situmbeko Musokotwane, MP
Minister of Finance and National Planning

December, 2022

Acknowledgement



The Ministry of Fisheries and Livestock (MFL) is mandated to develop and regulate the fisheries and livestock subsector in Zambia in order to contribute to sustainable food and nutrition security, as well as contribute to household and national income generation. Within the precincts of its mandate, MFL has continued to implement several interventions aimed at improving fisheries and livestock production and productivity in order to meet both local and international market.

As important as this sector is to both, household and national food and nutrition security and wealth generation, MFL has been grappling with the problem of not being able to provide accurate, reliable and comprehensive fisheries and livestock statistics to properly inform decision making. Further, it has been difficult to gauge the growth of the two subsectors and assess their contribution GDP, food and nutritional security, income generation and job creation. Recently, the only widespread survey that was undertaken was the 2017-18 Livestock and Aquaculture Census and consequently, the Ministry and its stakeholders have not been able to report and provide evidence-based information on key policies and programmes. Generally, the fisheries and livestock statistics have remained scanty, incomplete and unreliable.

Dr. Anna C. Songolo
Permanent Secretary
Ministry of Fisheries and
Livestock

To address the situation, Government in its 2022 Budget allocated funds to support the undertaking of a Livestock Survey which was implemented countrywide. The survey was undertaken by the Ministry of Fisheries and Livestock and the Zambia Statistics Agency under the auspices of the Ministry of Finance and National Planning in collaboration with the Indaba Agricultural Policy Research Institute (IAPRI). We therefore want to appreciate the contribution IAPRI made to this process and its overall contribution towards development of statistics in the country. We also want to thank the African Development Bank funded project, Sustainable Livestock Infrastructure Management Project (SLIMP) under MFL for its financial support towards data processing, report-writing and printing of this report.

Finally, our gratitude is extended to all the technical and support staff at both the MFL and ZAMSTATS, the Provincial Administrators, and the Enumerators for their effort and diligence in producing a high-quality data set and analysis presented in this report. It is our sincere hope that the statistics contained herein will help in improving decision making and policy formulation in the sub-sectors of Fisheries and Livestock.

Danies K. Chisenda
Permanent Secretary
Ministry of Finance and
National Planning

December, 2022



Statement by the Interim Statistician General

The Zambia Statistics Agency was established under the Statistics Act No. 13 of 2018. The main focus of the Act is to develop an integrated National Statistical System, provide mechanism for coordination, collecting, management and dissemination of statistics, and promote the use of statistical data and information at all levels. By the same Act, the Zambia Statistics Agency is sole designated entity responsible for the publication of official statistics. The Agency is also required to provide for the production and compilation of official statistics in a transparent and impartial manner.

It is against this background that I am pleased that the Ministry of Fisheries and Livestock collaborated with the Agency in conducting the 2022 Livestock Survey.

The 2022 Livestock Survey used a sound methodology and internationally accepted fundamental principles for the production of official statistics. It was designed to provide livestock estimates at national and provincial levels. It collected information on livestock-raising household characteristics, livestock production, poultry production, animal reproduction and management, milk production, livestock breeds and honey production.

I hope the results contained in this report and the dataset will find use among policy makers, programme managers, researchers and other data users for the development of the livestock industry and the entire Zambian country. The 2022 Livestock Survey raw data and any specialized tabulations can be made available to users upon request.

Mulenga J. J. Musepa
Interim Statistician General
ZAMBIA STATISTICS AGENCY

December, 2022



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EXECUTIVE SUMMARY



Executive summary

The Ministry of Fisheries and Livestock is mandated to develop and manage the fisheries and livestock subsector to contribute to sustainable food, nutritional security and income generation. In the recent past, Government has continued to implement several interventions aimed at improving fisheries and livestock production and productivity in line with the aspirations of the Eight National Development Plan (8NDP) and the Vision 2030. To fulfil its key mandate of improving livestock production and productivity, the notable programmes that are being implemented include livestock stocking and restocking using improved livestock breeds, promotion of forage and fodder production and utilization, improved livestock infrastructure and improved livestock disease control. Despite these interventions, the livestock subsector still faces a number of disease outbreaks and other challenges throughout the country which has negatively affected its growth.

The situation thus requires regular updating the livestock statistics to guide policy decisions. Therefore, in order to be able to provide accurate, reliable and comprehensive production and productivity statistics, surveys must be regularly conducted to substantiate the growth of the sub-sector. The last recently undertaken 2017/18 Livestock and Aquaculture Census (2017/18 LAC) conducted for both Households and Establishments (Commercial entities) gave a current situation overview of the livestock status in the country. This report gives a description of the Livestock Sub-Sector as at 30th April, 2022.

A total of 1,801,075 households were engaged in livestock activities as at 30th April 2022, while 2,350,573 households were not engaged in any livestock activity. Overly, 73.3% of livestock household heads were married (70.7% monogamous and 2.6% polygamous) and 5.5% of households were not married.

Meanwhile, 11.7% were widowed and 5.9% were divorced. A total of 1,331,153 households were male-headed (accounting for 73.9% of the total livestock, households) and 469,922 were female-headed (26.1%) in the country. The total number of members in the livestock raising households was 9,521,927 of which 49.5% were male and 50.5% were female. The youth population, comprising the age groups between 15-19 and 30-34 years, made up 35.7% of the total number of members of households. Meanwhile, the adult population represented 24.7%. The male-headed households dominated at 73.9% while female-headed households came last at 26.1%. Among the age groups, those above the age of 35 years came first at 73.0% while those below the age of 15 years came last at 0.03%. In the case of sex against age, the households with the age range of 15 to 35 years topped among the male-headed households at 80.8% while female households were at 19.2%. Overly, 9.5% of livestock household heads had no education, 51% of the livestock household heads had completed primary education while 1.4% had bachelor's degrees.

A total of 1,241,402 Livestock Households were recorded. Out of the total number of livestock-raising Households recorded, 438,423 households were involved in cattle rearing. Southern Province had the highest contribution to this National total providing 33.4% of the cattle-raising households. With regard to goat rearing, 593,870 households were recorded with Southern Province accounting for the highest number of Households at 33.3%. A total of 226,856 Households were recorded to be involved in pig rearing with the highest number of Households coming from Southern Province (30.6%). There were 27,293 Households rearing sheep in the country, of which 49.4% were from Southern Province. Donkeys were raised by a total of 6,252 households countrywide.

Southern Province had the highest contribution of donkey-raising households at 50.9% of the national total. Disease was reported as the major constraint facing the livestock and poultry raising households. The Cattle population was 4,698,972, Goats 4,455,860, Sheep 260,560 and Pigs 1,160,842 as at 30th April, 2022. Meanwhile, Dog and Cat population was at 915,164 and 300,052, respectively.

Village chicken raising households recorded the highest number at 1,597,215 followed by Broilers at 35,773 and Layers were the least at 15,354. The Village Chicken population from both Household and Establishment was 21,232,447 as at 30th April 2022. Southern Province reported the highest number at 4,188,434 (19.7%) of the total national stock. The Broiler Chicken population from both Household and Establishment was 5,486,509 as at 30th April, 2022. Lusaka Province recorded the highest number at 2,029,967 (37.0%) of the total national stock, followed by Central at 853,073 (15.5%). The Layer Chicken population from both Household and Establishment was 2,244,434 Central Province account for the highest percentage of 56.1% of the total national stock.

A total of 48,251 households were involved in honey production. Among the provinces, Southern recorded the highest percentage of Households at 24.6 % (11,860). Meanwhile, 14,239 Metric tonnes was produced by Households. Among the provinces, North-western recorded the highest percentage of comb honey produced by Households at 55.4

% (7,891 metric tonnes). The severe major-constrain was pests at 24.2%, the second severe major- constraint was Beehive maintenance at 14.2%, and the least severe major-constraint was lack of extension services at 22.3%.

A total of 37,906,803 litres of milk were produced by households and 51,981,604 liters by Establishments. At household level, Southern Province produced the highest percentage of milk at 62.4 % (23,667,913 litres) followed by Central Province at 18,248,776 litres. The lowest quantity was reported in Luapula Province at 128,456 litres.

There were 432,549 Households raising various cattle breeds (pure and mixed) in the country. Of this total, the households that raised most common pure cattle breeds were distributed as follows: 161,918 (37.4%) raised Angoni; 61,249 (14.2%) raised Tonga; 43,747 (10.1%) raised Barotse; while 14,192 (3.3%) raised the Africander. The total number households raising goats was 579,746. The most common raised goat breed was the Bantu breed which was raised by 179,905 (31%). There were 26,780 Sheep Raising households at national level. The most common raised sheep breed was the Fat Tailed which was raised by 20.4 % (5,470) followed by the Indigenous-Exotic cross raised by 19.7 % (5,288). At national level the number of households raising pigs was 218,163. The most common raised pig breed was the Exotic Cross which was raised by 56.1% (122,395). The least raised pig breed was the Indigenous breed which was raised by 2.6% (5,749) of the national pig raising households.





**CHAPTER 1:
BACKGROUND**





Chapter One: Background

1.0. Introduction

The Zambian economy has been registering increased growth in a number of key economic sectors including livestock. Livestock is central to the livelihood of most people and is strategically important for food and nutrition security, a source of income, animal draught power and has aesthetic value. Currently, the sub-sector contributes 3.2% to the national GDP and 42% to the agriculture GDP and has the potential to deliver both agricultural led growth and socio-economic transformation as aspired by the Eight National Development Plan (8NDP) and the Vision 2030. The demand for livestock and livestock products has remained sustainably high due to the steady population growth and the regional and international markets are also unmet.

The Ministry of Fisheries and Livestock is mandated to develop and manage the fisheries and livestock subsector to contribute to sustainable food, nutritional security and income generation. In the recent past, Government has continued to implement several interventions aimed at improving fisheries and livestock production and productivity in line with the aspirations of the Eight National Development Plan (8NDP) and the Vision 2030. To fulfil its key mandate of improving livestock production and productivity, the notable programmes that are being implemented include livestock stocking and restocking using improved livestock breeds, promotion of forage and fodder production and utilization, improved livestock infrastructure and improved livestock disease control. Despite these interventions, the livestock subsector still faces a number of disease outbreaks and other challenges throughout the country which has negatively affected its growth. The situation thus requires regular updating the livestock statistics to guide policy decisions. Therefore, in order to be able to

provide accurate, reliable and comprehensive production and productivity statistics, surveys must be regularly conducted to substantiate the growth of the sub-sector. The last recent undertaken 2017/18 Livestock and Aquaculture Census (2017/18 LAC) conducted for both Households and Establishments (Commercial entities) gave a current situation overview of the livestock status in the country.

Consequently, the 2022 Livestock survey had been necessitated in order to validate the accuracy of the administrative data and to update the current data in order to provide evidence-based statistics required to inform decision making. Suffice also to mention that the 2022 Livestock Survey is the first-ever nationwide survey conducted and as such it is important to undertake subsequent ones as this will assist to validate the data and improve precision and accuracy in the future surveys. It is important to note of the difference in the reference periods for the 2017/2018 LAC and the 2022 Livestock Survey. The 2017/18 LAC was conducted using the 2016/2017 agricultural season while the 2022 Livestock survey used the 2021/2022 marketing season. This difference in seasonality's has potential to bring about differences in certain indicators.

1.1. Objectives of the survey

The overall objective of the survey was to collect updated, reliable and creditable livestock statistics that will guide policy formulation, cooperating partners support and private sector decisions regarding investments and the development of the livestock sector. The specific objectives were to:

- Determine the number of households and establishments participating in livestock and poultry raising, and honey production;

- Determine the population and population changes for the major livestock species;
- Estimate the population of poultry in the country;
- Determine the major challenges affecting livestock and poultry production in Zambia;
- Determine the herd-structure for the major livestock species in the country;
- Estimate the livestock productivity levels in Zambia;
- Determine the number slaughters of livestock for the major livestock in Zambia;
- Determine the livestock reproduction and management practices applied by the households in raising the livestock in Zambia;
- Estimate the quantity of honey produced by households and establishments;
- Estimate the number of households engaged in raising major livestock breeds.
- Provide data for measuring key economic performance indicators such Gross Value Added (GDP) and its contribution to the economy.
- Provide statistics which can be used to determine the deficit or surplus status of the different types of livestock raised in Zambia, and
- Provide information to be used as a basis for determining the export potential of the country with regard to livestock products;





**CHAPTER 2:
CONCEPTS AND DEFINITIONS**



Chapter 2: Concepts and Definitions

2.0. Introduction

The following concepts and definitions are as articulated by the Ministry of Fisheries and Livestock (MFL) in collaboration with Zambia Statistical Agency during the Livestock Survey of 2022.

2.1. General Concepts and Definitions

Acaricide: Refers to a tick-killing drug or preparation.

Adult member: refers to a member of the household who are 12 years or older.

Aesthetic Value: The enjoyment of beauty or display of great beauty of something.

Agricultural Activity: is the growing of any crop and/or raising of livestock, raising of poultry and/or fish farming.

Agricultural Activity: This is the growing of any crop and/or raising of livestock, raising of poultry and/or fish farming.

Agricultural Household: Is a household in which at least one member is carrying out some agricultural activity.

Agricultural Household: is a household in which at least one house member is carrying out some agricultural activity.

Agricultural Marketing Season: Zambia's marketing season starts from 1st May of a given year to 30th April of the following year.

Animal draught power: Energy to do work, derived from domesticated/trained animals, e.g. oxen, donkeys etc.

Animal manure: Refers to forms of livestock manure e.g., chicken droppings, cattle dung etc.

Artificial Insemination: It is the process of collecting sperm cells from a male animal and manually depositing them into the reproductive tract of a female. It is used as an alternative to natural mating because of the associated benefits.

Backyard: method of raising animals within the premises of the residence.

Boar: mature male breeding pig.

Buck: mature male breeding goat. They are also known as billy goat.

Bulls: are uncastrated adult male cattle.

Calves: are either male or female young cattle that are not yet weaned.

Castration equipment: Equipment used to castrate animals i.e Burdizzo.

Cats: A small domesticated carnivorous mammal with soft fur a short snout and retractable claws widely kept as a pet.

Census Supervisory Area (CSA): This is a grouping of standard enumeration areas and is meant to be assigned to one supervisor during census enumeration.

Chickens (Broilers): exotic chickens raised mainly for meat.

Chickens (Layers): exotic chickens raised mainly for egg production.

Controlled mating: the animals are mated in such a way that the offspring can be guaranteed to be the progeny of the animals concerned, the number of matings can be counted and the use of the animals for breeding is tightly controlled.

Cows: are female cattle that have given birth at least once. Include female cattle that have not yet given birth but are beyond the stage of being termed heifers.

Crop production: The growing of field crops such as maize, millet, cassava etc. The crops of interest for this survey are maize, rice, sorghum, sunflower, soya beans, groundnuts, sweet potatoes and cassava.

Demographics: Statistical data relating to the population and particular groups within it.

De-worming: administration of drugs in order to expel worms from an animal.

Dipping: is a method of tick control which involves the plunging of the animal into the Plunge Dip containing a mixture of water and an acaricide.

Doe: mature female breeding goat. Also known as nanny goat.

Dogs: A domesticated carnivorous mammal with non-retractable claws widely kept as a pet, for guarding or hunting.

Donkey: an animal which is like a horse but is smaller and has longer ears.

Ducks: these are mostly water birds, smaller in size than geese and are found both in fresh water and sea water.

Establishment: a business or other organization, or the place where an organization operates.

Ewe: mature female breeding sheep.

Exotic livestock: Non-indigenous species of domesticated livestock e.g. brahman, boran, black astrolopes, kroilers and sasols.

Family Labour: energy to do work derived from household members

Gilt: young female pigs that have not farrowed (female pig that has never given birth).

Guinea fowl: large speckled grey African bird that is often eaten as meat.

Guinea pig: small furry animal without a tail.

Hand dressing: Removing of ticks using the application of tick grease from the body of an animal.

Handling facilities: structures that facilitate handling of animals such as crush pens, kraals, loading bays, etc.

Head of Household: The Head of the household is a person who is considered to be the head by the members of the household.

Heifers: are female cattle that have not yet given birth and have not reached the stage of being termed cows.

Herd: A large group of animals, especially hoofed mammals, which live together or are kept together as livestock.

Hired Labour: energy to do work, obtained for temporal use, at a cost.

Holding: Is all land wholly or partly operated for agricultural purposes such as growing crops, fish farming and/or raising livestock and/or raising poultry for production under single technical management. A holding may consist of one or more activities listed above in one or separate areas.

Kid: young goat that is not yet weaned.



Lamb: young sheep that is not yet weaned.

Livestock: all domesticated animals that are used/may be used for food and agriculture purposes such as cattle, pigs, goats, sheep and poultry.

Livestock Activity: is the raising of livestock.

Livestock extension: These are support services rendered to farmers with regards to improved methods of raising livestock e.g. Educating farmers on animal health services, livestock feeding practice, or animal housing etc.

Livestock Household: A household engaged in any livestock activity. For the 2022 livestock survey, this definition includes a household involved in Honey Production.

Livestock Management: All activities pertaining to the control and organization of livestock production.

Livestock Production: all activities pertaining to the raising of all types of livestock.

Mechanical power: Energy to do work which is derived from machinery driven by either an engine or electricity, e.g. tractor.

Oxen: are adult castrated male cattle.

Oxen: are castrated male cattle. (Not all oxen are trained as draught power animals).

Pigeons: bird usually white/grey in colour mostly kept at home.

Piglet: are either male or female young pigs that are not yet weaned.

Polygamous Marriage: a polygamous marriage is where a man is married to more than one wife.

Poultry: all domesticated fowls such as chickens, ducks, geese, pigeons, guinea fowls, turkeys and quails. Poultry also includes rabbits.

Poultry production: all activities pertaining to the raising of all types of fowls including rabbits.

Pour-on: is a method of tick control which involves the applying of acaricide on the skin and hair along the back of an animal.

Quails: A small (17cm) bird, essentially streaked brown with a white eye stripe and has long wings.

Qualified Respondent: is an adult member of the household who is knowledgeable about agricultural and livestock activities of the household.

Rabbit: A burrowing mammal with long ears and a short tail. Tick control methods.

Ram: mature male breeding sheep.

Sheep: Include ram, ewe and lambs.

Sire: The male parent of an animal, especially a stallion or bull kept for breeding.

Sow: mature female breeding pig.

Spraying: this is the application of a chemical (acaricide) using a sprayer or a spray race.

System of production: Method of raising a particular type of livestock.

Tollies/steers: are young castrated male cattle.

Traditional tick control: unconventional tick control method e.g. application of herbs to control ticks.

Turkey: A large bird of the genus meleagris.

Usual Household Member: A usual household member is any individual who in the last 12 months has lived with the household for at least six months regardless of whether they have intentions to stay or not. A household member includes;

- an individual attending school away from home,
- Employees of household - includes servants who eat and sleep with the household and who do not go home at least once a week,
- individuals who are newly wedded-in,
- Individuals who have stayed for less than six months but have come to stay with the household,
- newly born babies,
- Persons Admitted to hospitals should be considered usual members of the household,
- Persons remanded in Prison and Prisoners convicted for less than 6 months will be considered members of the household,
- Persons temporarily away on holiday, business or pleasure trip or any other

purpose within the country or abroad who are expected to be back within six months,

- Persons working elsewhere who usually go home to their respective households at least once a week, and
- Someone who stayed with the household for more than 6 months between May 2021 and April 2022 but has left the same household before the survey and has no intention of re-joining.

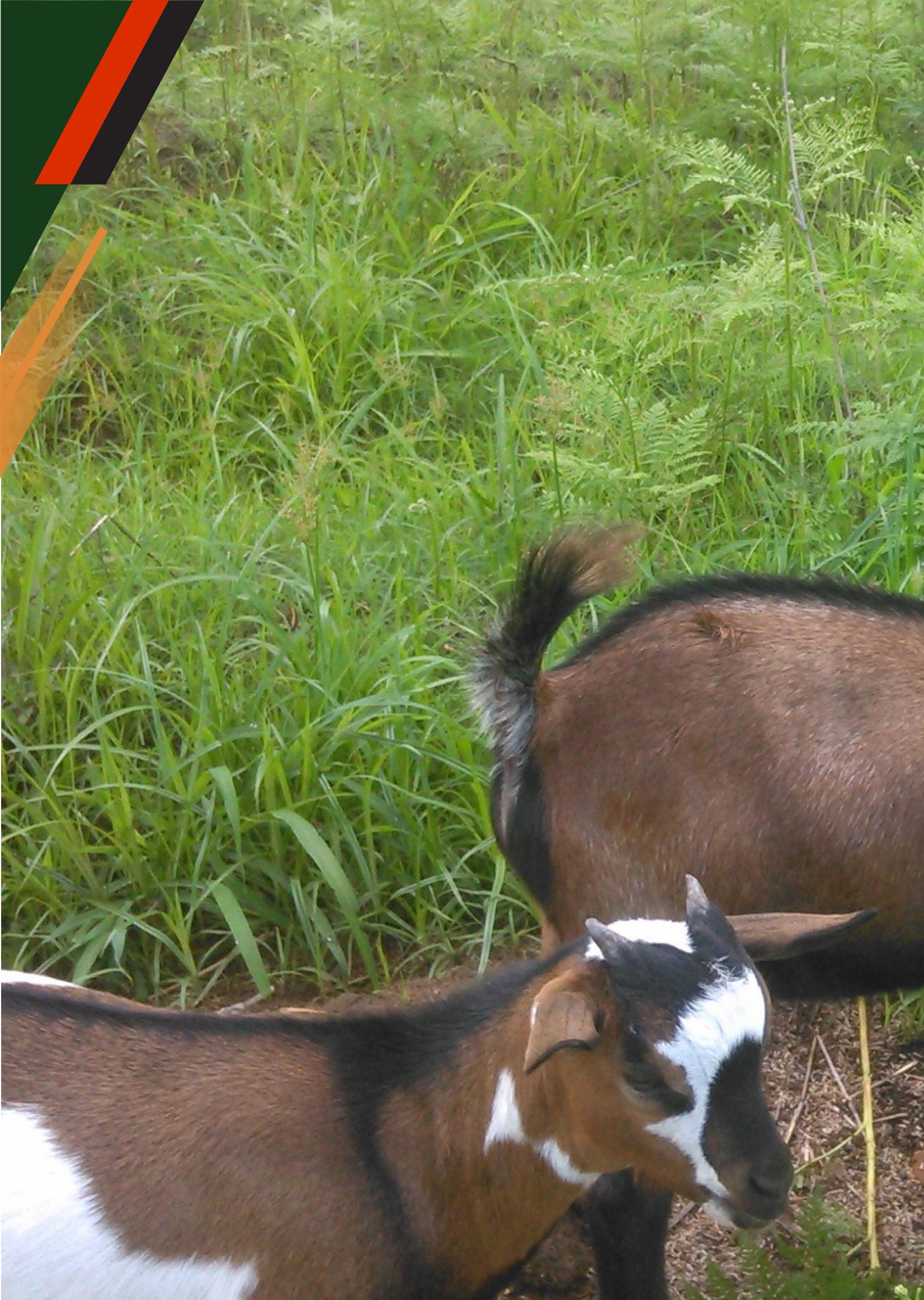
Vaccination: This is administration of vaccines in order to prevent diseases.

Vaccine: a preparation administered to an animal to prevent it from suffering from a particular disease or condition.

Veterinary equipment: equipment used in veterinary operations and these include castrators, needles and syringes.

Village chicken: traditional indigenous chickens.

Water Source: is a source of water for animals to drink e.g. boreholes, rivers, lakes Fodder.





**CHAPTER 3:
SURVEY METHODOLOGY AND
ORGANISATION**



Chapter 3: Survey Methodology and Organization

3.0. Sample Design and Coverage

In reviewing the results of this 2022 Livestock survey, it should be noted that results of the survey can only be generalized to the entire population at national, provincial and regional (urban/rural) levels.

The reference period for data collection, pertaining to livestock production was 1st May 2021 to 30th April 2022. Therefore, comparison of results of this survey with data obtained through administrative sources is not allowed due to the differences in the data capture methods and the reference periods.

The Ministry of Fisheries and Livestock in conjunction with Zambia Statistics Agency (ZamStats) successfully conducted the 2017/2018 Livestock and Aqua-culture Census. The Census provided useful baseline data that can be used to formulate subsequent livestock and aqua-culture household surveys. The 2022 Livestock survey is one such a survey.

The 2022 Livestock survey was designed to cover a representative sample of about 9,680 households residing in both rural and urban parts of the country. A total of 484 Enumeration Areas (EAs) were drawn from 25,600 EAs nationwide. The survey will produce reliable estimates at national, provincial and Residence (rural/urban) levels.

3.1. Sample Stratification and Allocation

At the time of sampling, the 2010 Census of population and Housing frame was used to provided data on the proportions of households that raised livestock and with some attributes coming from the 2017/2018 Livestock and Aquaculture Census (LAC). This information was used to categorize enumeration areas according to percentage of households rearing livestock.

According to the census frame, the country is administratively demarcated into 10 provinces, which are further divided into 116 districts. The districts are further subdivided into constituencies, which are in turn divided into wards. For the purposes of conducting household surveys, wards are further divided into Census Supervisory Areas (CSAs), which are subsequently subdivided into Enumeration Areas (EAs). The EA's constitute the Primary Sampling Units (PSUs) for the survey. In order to have reasonable estimates at provincial level and at the same time take into account variation in the sizes of the provinces, the survey adopted the Optimal Square Root sample allocation method (Leslie Kish, 1987). This approach offers a better compromise between equal and proportional allocation, that is, small sized strata (province) are allocated larger samples compared to proportional and equal allocations. The following was the rural/urban allocation within each province.

Provincial and Rural/Urban allocation of EAs

Province	Allocation of EA		
	Urban	Rural	Total
Central	15	56	71
Copperbelt	8	24	32
Eastern	12	59	71
Luapula	4	19	23
Lusaka	12	30	42
Muchinga	6	26	32
Northern	7	27	34
North western	7	30	37
Southern	20	76	96
Western	5	41	46
Total	96	388	484

3.2. Coverage

The 2022 Livestock survey was undertaken using a sample of 484 EAs. All rural and urban households were explicitly stratified into categories based on the scale of their agricultural livestock activities, that is, raising livestock and/poultry or bee keeping.

Note that the survey also collected data from all livestock raising institutions/farms which operate as establishments on a 100 percent basis using a separate large-scale questionnaire.

3.3. Selection of Households

The 2022 Livestock survey used a two-stage stratified cluster sample design. During the first stage, 484 EAs were selected with Probability Proportional to Estimated Size (PPES) within the respective strata. The measure of size used was population figures for each EA taken from the 2010 Census of Population and Housing updated with some attributes from the 2017/2018 LAC. During the survey, households were listed and stratified according to their scale of livestock, poultry or bee keeping activities. Listing of all households in the selected EAs was done to provide basic

agricultural data. A sample of 20 households was drawn and detailed interview conducted. They were three explicit categories created at the second sampling stage in each EA namely A, B and C. For the purposes of the survey 5, 5 and 10 households were selected from A, B and C categories, respectively.

In cases where there were shortfalls in category C, all households in this category were included and the difference from 20 was equally allocated to categories B and A. If the difference from 20 could not be equally allocated to the two categories, one (1) more was allocated to category B households than category A.

Where there was no household in category C, 10 sample households were allocated to category B, and 10 to category A.

Where there was no household in category C and less than 10 in category B, all those in B were included in the sample and the allocation in category A was increased to make up for the shortfall from the required number of 20 sample households.

Where all households in an EA fell in category A, all the required 20 sample households were selected from this category.



The following criteria was used to stratify households into the three (3) explicit categories: A, B and C.

Category C:

1. Households reporting Bee keeping or special livestock (sheep). When only 1 or 2 households in the EA reported Bee keeping or specified special livestock (sheep).
2. Households raising 50 or more cattle, 20 or more pigs, 30 or more goats, and
3. Households raising 50 or more chickens.

Category B:

1. Households reporting Bee keeping or sheep. When 3 to 5 households in the SEA report Bee keeping or specified livestock.
2. Households raising 10 to 49 cattle, 10 to 19 pigs, 10 to 29 goats, and households raising any number of chickens but less than 50.

Category A:

All households not in Category C and Category B.

Households raising less than 10 cattle, less than 10 goats, less than 10 pigs, and less than 50 chickens. All such households belong to category A.

3.4. Estimation procedure and sampling weights

Due to the disproportionate allocation of the sample points to various strata, sampling weights were required to correct for differential representation of the sample at the national and sub-national levels. The weights of the sample were in this case equal to the inverse of the product of the two selection probabilities employed at each stage of sampling.

Therefore, the probability of selecting an EA was calculated as follows:

$$P_{hi}^1 = \frac{a_h M_{hi}}{\sum M_{hi}}$$

Where:

P_{hi} = the first selection probability of EAs

a_h = the number of EAs selected in stratum **h**

M_{hi} = the size (in terms of the population count) of the **i**th EA in stratum **h**

$\sum_i M_{hi}$ = the total size of the stratum **h** ($i = 1, 2, 3, \dots, n$)

The selection probability of the household will be calculated as follows:

Example of category A

$$P_{hiA}^2 = \frac{nh_{iA}}{N_{hiA}}$$

Where:

P_{hiA}^2 = the second selection probability of households in category A

nh_{iA} = the number of households selected in category A from the **ith** EA

N_{hiA} = the total number of households listed in category A in an EA.

Therefore, the EA specific sample weight for category A will be calculated as follows:

$$W_{iA}' = \frac{1}{P_{hi}^1 \times P_{hiA}^2}$$

Non-Response Adjustment

For the 2022 Livestock survey, no substitution was allowed for non-responding households therefore adjustments needed to be made.

The adjustment was equal to the livestock raising households (responding plus non-responding households) divided by the responding households.

3.5. Limitations

The 2022 Livestock survey was designed to cover a representative sample of 9,680 households residing in both rural and urban parts of the country. The inadequacies in the sampling design could be attributed to the 2010 sampling frame which had not been updated over time.

At planning stage, not every concept or definition was included but as much as possible, an attempt was made to conform to the international standards.

Further, the results of the survey can only be generalized to the entire population at national, provincial and regional (urban/rural) levels. The reference period for survey is 1st May 2021 to 30th April 2022 [Marketing Season]. Therefore, comparison of results of this survey should only be made to surveys conducted during similar periods.

Furthermore, as much as possible, remedial measures were taken to ensure representativeness and accuracy of the survey results.





**CHAPTER 4:
DEMOGRAPHIC CHARACTERISTICS
OF HOUSEHOLDS BY PROVINCE**





Chapter 4: Demographic Characteristics of Households by Province

4.0 Introduction

This chapter presents a summary of demographic and agricultural characteristics of households and establishments engaged in livestock activities as at 30th April 2022. The main agricultural characteristics include households involved in livestock, poultry, crop, honey production and any other agricultural activities such as fish farming. The main demographic characteristics highlighted in this section include sex, education level and marital status of livestock household heads.

4.1. Livestock Characteristics of Surveyed Households

4.1.1. Distribution of Households

4.1.1.1. Distribution of Households

Table 4.1 shows the distribution of households by province. A total of 1,801,075 households

were engaged in livestock/poultry activities as at 30th April 2022, while 2,350,573 households were not engaged.

Among the provinces, Southern Province had the highest percentage of livestock households at 16.6%, followed by Eastern Province at 16.5%. North-western Province had the lowest percentage of livestock households at 5.9% of the total livestock-raising households.

Meanwhile, Lusaka Province had the highest number of households that were not engaged in any livestock activities at 31.3% and North-western Province also recorded the lowest at 4.6% in terms of the households with the least involvement in livestock activities.

Table 4.1: Distribution of Livestock and Non-Livestock Households by Province as at 30th April 2022

Province	Livestock-Raising Households		Non-Livestock Raising Households	
	Number	Percent	Number	Percent
Central	222,592	12.4	184,324	7.8
Copperbelt	159,760	8.9	436,920	18.6
Eastern	297,277	16.5	148,226	6.3
Luapula	146,658	8.1	166,535	7.1
Lusaka	108,282	6.0	736,282	31.3
Muchinga	134,112	7.4	127,297	5.4
Northern	189,359	10.5	159,472	6.8
North-Western	106,640	5.9	108,767	4.6
Southern	298,816	16.6	169,363	7.2
Western	137,580	7.6	113,386	4.8
Zambia	1,801,075	100.0	2,350,573	100.0

4.1.2 Distribution of Heads of Livestock Raising Households by Marital Status

Table 4.2 shows the percentage distribution of livestock household heads by marital status and province. Overly, 73.3% of livestock household heads were married (70.7% monogamous and 2.6% polygamous) and 5.5% of households were not married. Meanwhile, 11.7% were widowed and 5.9% were divorced.

Among the ten (10) provinces, Northern Province had the highest percentage of monogamously married household heads at

77.9% while Western Province had the lowest percentage at 63.2%. Southern Province had the highest percentage of polygamously married household heads at 10.4% while North-western Province had the lowest percentage at 0.4%. Lusaka Province had the highest percentage of widowed household heads at 15.2% while North-western Province had the lowest percentage at 7.7%. Lusaka Province recorded the highest number of divorce cases at 8.0% while North-western Province had the least at 3.6%.

Table 4.2: Distribution of Heads of Livestock raising Households by Marital Status and Province

Province	Marital Status							Total	Total Livestock raising households
	Never married	Married		Divorced	Widowed	Separated	Cohabiting		
		Monogamously married	Polygamously married						
Central	6.8	68.8	1.9	7.0	13.5	1.9	0.0	100	222,592
Copperbelt	4.5	75.7	0.5	5.4	10.3	3.5	0.0	100	159,760
Eastern	0.9	73.0	5.9	5.2	11.0	4.1	0.0	100	297,277
Luapula	1.4	69.7	3.4	7.2	13.7	4.5	0.2	100	146,658
Lusaka	5.7	67.1	0.8	8.0	15.2	2.9	0.3	100	108,282
Muchinga	4.5	73.2	0.6	5.4	10.5	5.8	0.0	100	134,112
Northern	1.6	77.9	1.0	4.3	10.1	5.1	0.1	100	189,359
North-Western	13	72.6	0.4	3.6	7.7	2.7	0.1	100	106,640
Southern	2.3	66.0	10.4	5.3	13.1	2.8	0.1	100	298,816
Western	14.5	63.2	0.9	7.7	11.5	2.3	0.0	100	137,580
Zambia	5.5	70.7	2.6	5.9	11.7	3.6	0.1	100	1,801,075

4.1.3 Distribution of Agricultural Households by Activity

Table 4.3 shows distribution of agricultural households according to agricultural activities namely Livestock/poultry, Honey and Crop production and others.

Livestock/Poultry Production: A total of 1,711,626 households were involved in livestock/poultry production as at 30th April 2022. Southern Province had the highest number of livestock/poultry raising households (16.8%), followed by Eastern Province (16.1%). Central and Northern Provinces accounted for

12.4% and 10.6% respectively while North-Western Province reported the lowest at 5.6%. Honey Production: A total of 50,015 households were involved in honey production as at 30th April 2022. Southern Province had the highest number of households involved in honey production at 25.1%, followed by North-western Province at 18.5%, while Luapula Province with accounted for the lowest number at 0.5%.



Crop Production: A total of 1,528,070 households were engaged in crop production as at 30th April 2022. Eastern Province recorded the highest percentage at 18.4% while Lusaka Province accounted for the lowest at 2.6%.

Other agricultural activities: A total of 12,285 households were engaged in other agricultural activities. North-western Province recorded the highest at 36.9%.

Table 4.3: Distribution of Agricultural Households by Type of Agricultural Activity and Province as at 30th April 2022

Province	Livestock/Poultry production		Honey production		Crop production		Other agricultural activity	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Central	212,725	12.4	2,316	4.6	192,217	12.6	354	2.9
Copperbelt	152,630	8.9	5,006	10.0	109,833	7.2	1,203	9.8
Eastern	275,622	16.1	8,771	17.5	280,821	18.4	1,050	8.5
Luapula	139,762	8.2	236	0.5	135,028	8.8	128	1.0
Lusaka	104,344	6.1	1,672	3.3	40,455	2.6	402	3.3
Muchinga	129,560	7.6	2,954	5.9	129,829	8.5	-	0.0
Northern	181,534	10.6	6,520	13.0	162,389	10.6	91	0.7
North-Western	95,862	5.6	9,272	18.5	92,454	6.1	4,538	36.9
Southern	288,290	16.8	12,561	25.1	265,697	17.4	4,295	35.0
Western	131,297	7.7	707	1.4	119,347	7.8	225	1.8
Total	1,711,626	100.0	50,015	100.0	1,528,070	100.0	12,285	100.0

4.1.4 Distribution of Livestock Households by Sex of Household Head

Table 4.4 shows the distribution of livestock households by sex of household head and province. A total of 1,331,153 households were male-headed (accounting for 73.9% of the total livestock households) while 469,922 were female-headed (26.1%) in the country.

Within provinces, the Copperbelt Province had the highest percentage of male-headed households (78.7%) while Western Province had the lowest at 67.0%. Further, Western Province had the highest percentage of female-headed households (33.0%) while Copperbelt Province had the lowest at 21.2%.

Table 4.4: Distribution of Livestock Households by Sex of Head of Household and Province as at 30th April 2022

Province	Sex of Household Heads				Total Livestock Households
	Male	Percent	Female	Percent	
Central	170,012	76.4	52,579	23.6	222,604
Copperbelt	125,818	78.7	33,942	21.2	159,769
Eastern	226,709	76.3	70,568	23.7	297,294
Luapula	101,112	68.9	45,546	31.1	146,666
Lusaka	81,467	75.2	26,814	24.8	108,288
Muchinga	103,025	76.8	31,087	23.2	134,120
Northern	128,797	68.0	60,562	32.0	189,369
North-Western	78,310	73.4	28,330	26.6	106,646
Southern	223,715	74.9	75,100	25.1	298,832
Western	92,187	67.0	45,393	33.0	137,587
Total	1,331,153	73.9	469,922	26.1	1,801,175

4.1.5 Age Group and Sex of Members of Livestock/Poultry/Honey/Crops/ Other Agricultural Households

Table 4.5 shows the age group and sex of members of livestock raising households in the country. The total number of members in the livestock raising households was 9,521,927 of which 49.5% were male and 50.5% were female. The table also shows that 39.6% of the total number of members were below the age of 15 years.

The youth population, comprising the age groups between 15-19 and 30-34 years, made up 35.7% of the total number of members of households. Meanwhile, the adult population represented 24.7%.

Table 4.5: Age Group by Sex of Members of Livestock Households

Age Group	Sex of Household Member		Total Members of Livestock households	
	Male	Female	Number	Percent
0-4	525,093	547,897	1,072,990	11.3
5-9	656,004	631,647	1,287,651	13.5
10-14	719,012	693,102	1,412,114	14.8
15-19	665,526	610,504	1,276,030	13.4
20-24	490,245	468,764	959,009	10.1
25-29	284,409	334,255	618,664	6.5
30-34	262,438	283,305	545,743	5.7
35-39	209,506	263,940	473,446	5.0
40-44	230,914	270,246	501,160	5.3
45-49	177,007	195,631	372,638	3.9
50-54	175,140	160,690	335,830	3.5
55-59	97,723	97,511	195,234	2.1
60-64	79,161	95,416	174,577	1.8
65-69	51,735	54,275	106,010	1.1
70-74	38,170	43,626	81,796	0.9
75-79	17,771	28,829	46,600	0.5
80+	30,500	31,935	62,435	0.7
Total	4,710,354	4,811,573	9,521,927	100.0



4.1.6 Household Heads engaged in Livestock/Poultry/Honey/Crops/Other Agricultural Activities by Age Group and Sex

Tables 4.6 and 4.7 show the age group and sex of livestock household heads in Zambia. In both tables, male-headed households dominated at 73.9% while female-headed households at 26.1%.

Among the age groups, those above the age of 35 years came first at 73.0% while those below the age of 15 years came last at 0.03% (see Table 4.6). In the case of sex against age, the households with the age range of 15 to 35 years topped among the male-headed households at 80.8% while female households were at 19.2%.

Table 4.6: Age Group by Sex of Heads of Livestock Households

Age Group	Sex of Heads of livestock Household				Total livestock households	Total percent
	Male		Female			
	Number	Percent	Number	Percent	Number	Percent
Less than 15 years old	324	56.4	250	43.6	574	0.03
15 to 35 years old	392,314	80.8	92,987	19.2	485,301	26.9
Above 35 years old	938,515	71.4	376,685	28.6	1,315,200	73.0
Total	1,331,153	73.9	469,922	26.1	1,801,075	100.0

According to Table 4.7, the age group 40-44 years was the highest at 14.6%, followed by the age group 50-54 years at 12.1% of total

livestock household heads while the age group 10-14 years was last.

Table 4.7: Age Group by Sex of Heads of Livestock Households

Age Group	Sex of Household Heads				Total Livestock households	
	Male		Female		Number	%
	Number	%	Number	%		
10-14	326	56.6	250	43.4	576	0.0
15-19	5,117	60.4	3,361	39.6	8,478	0.5
20-24	67,476	82.0	14,789	18.0	82,265	4.6
25-29	132,242	83.9	25,393	16.1	157,635	8.8
30-34	162,969	80.3	40,037	19.7	203,006	11.3
35-39	169,517	78.8	45,578	21.2	215,095	11.9
40-44	198,686	75.5	64,470	24.5	263,156	14.6
45-49	155,836	73.9	55,016	26.1	210,852	11.7
50-54	160,158	73.6	57,407	26.4	217,565	12.1
55-59	86,998	69.9	37,409	30.1	124,407	6.9
60-64	69,987	60.2	46,351	39.8	116,338	6.5
65-69	46,418	63.0	27,309	37.0	73,727	4.1
70-74	33,832	59.6	22,903	40.4	56,735	3.2
75-79	14,868	49.3	15,271	50.7	30,139	1.7
80+	26,725	65.0	14,376	35.0	41,101	2.3
Total	1,331,155	73.9	469,920	26.1	1,801,075	100.0

Table 4.8 shows the age group and sex of members of livestock raising households in the country. The total number of members in the livestock raising households was 9,522,070, out of which 49.5% were male and 50.5% were female. In addition, members below the age of

15 years were the highest at 39.6% while those above the age of 35 years were the lowest.

Furthermore, male members of less than 15 years were the highest at 50.4% while female members above the age of 35 years topped at 52.7%.

Table 4.8: Age Group by Sex of Members of Livestock Households

Age Group	Sex of Household Members				Total household members	Total percent
	Male		Female			
Less than 15 years old	1,900,109	50.4%	1,872,698	49.6%	3,772,807	39.6
15 to 35 years old	1,736,194	49.9%	1,743,819	50.1%	3,480,013	36.5
Above 35 years old	1,074,141	47.3%	1,195,109	52.7%	2,269,250	23.8
Total	4,710,444	49.5%	4,811,626	50.5%	9,522,070	100.0

4.1.7 Household Heads by Highest Level of Education Completed

Table 4.9 shows the distribution of livestock household heads by highest level of education completed and by province. Overall, 9.5% of livestock household heads had no education, 51% of the livestock household heads had completed primary education while 1.4% had bachelor's degrees. Further, by province, Eastern Province had the highest percentage of household heads with no education at 17.2%

while Lusaka Province had the lowest at 3.6%. Northern Province had the highest percentage of household heads with primary education at 60.8% while Lusaka Province had the lowest at 26%. However, Lusaka Province had the highest percentage of household heads with bachelor's degrees at 7.1% while Muchinga Province had the lowest at 0.2%.



Table 4.9: Distribution of Livestock Household Heads by level of Education Completed and Province as at April 2022

PROVINCE	None		Primary		Junior Sec		Senior Sec		A level		College/ Under graduate		Certificate/ Diploma		Bachelor's Degree		Master's Degree and Beyond		Total
Central	13,786	6.2	123,017	55.3	43,360	19.5	28,368	12.7	779	0.3	1,534	0.7	7,084	3.2	4,360	2.0	304	0.1	222,592
Copperbelt	8,802	5.5	55,942	35.0	38,912	24.4	43,687	27.3	447	0.3	828	0.5	10,206	6.4	936	0.6	-	-	159,760
Eastern	51,028	17.2	167,511	56.3	49,075	16.5	23,714	8.0	95	0.0	176	0.1	4,334	1.5	1,308	0.4	37	0.0	297,278
Luapula	10,944	7.5	85,232	58.1	28,041	19.1	16,997	11.6	-	-	641	0.4	2,735	1.9	2,068	1.4	-	-	146,658
Lusaka	3,895	3.6	28,116	26.0	15,119	14.0	37,769	34.9	970	0.9	751	0.7	12,620	11.7	7,716	7.1	1,325	1.2	108,281
Muchinga	18,533	13.8	71,553	53.4	22,201	16.6	18,758	14.0	838	0.6	483	0.4	1,484	1.1	235	0.2	26	0.0	134,111
Northern	10,378	5.5	115,061	60.8	41,819	22.1	17,069	9.0	316	0.2	297	0.2	3,180	1.7	1,241	0.7	-	-	189,361
North-Western	13,518	12.7	41,312	38.7	26,648	25.0	17,789	16.7	-	-	412	0.4	3,690	3.5	2,163	2.0	1,108	1.0	106,640
Southern	27,063	9.1	158,347	53.0	63,908	21.4	37,644	12.6	525	0.2	760	0.3	6,901	2.3	3,308	1.1	359	0.1	298,815
Western	12,633	9.2	72,163	52.5	32,783	23.8	16,016	11.6	176	0.1	268	0.2	2,000	1.5	1,445	1.1	95	0.1	137,579
Total	170,580	9.5	918,254	51.0	361,866	20.1	257,811	14.3	4,146	0.2	6,150	0.3	54,234	3.0	24,780	1.4	3,254	0.2	1,801,075

4.1.8 Size of Households involved in Livestock, Crop, Honey production and Other Agricultural Activities by Sex of Head and Province.

Table 4.10 shows that the overall average household size for male-headed households was 6 while that of female-headed households was 5. Copperbelt, Eastern, Luapula, North-Western, Southern and Western Provinces had the largest size (6), for male-headed

households while Muchinga Province had the smallest size at 4. Copperbelt Province had the largest average household size (6) for female-headed households while Central, Eastern, Lusaka, Muchinga, Northern and Southern Provinces had the smallest.

Table 10: Average Household Size of Livestock Households by Sex of Heads and Province as at 30th April 2022

PROVINCE	Average Household Size	
	Male Headed	Female Headed
Central	5	4
Copperbelt	6	6
Eastern	6	4
Luapula	6	5
Lusaka	5	4
Muchinga	4	4
Northern	5	4
North-Western	6	5
Southern	6	4
Western	6	5
National Average	6	5





**CHAPTER 5:
LIVESTOCK PRODUCTION AND HEALTH**



Chapter 5: Livestock Production and Health

5.0. Introduction

This chapter presents livestock statistics, including the number of various types of livestock, households and establishments raising various types of livestock, sales of live cattle in households and establishments, and herd structure during the reference period. The Survey further collected detailed statistics on the purpose of raising livestock, major constraints and diseases in the livestock sector during the period. Entries and exits of animals from the herd during the reference period were recorded as well. Common items collected also included the number of animals slaughtered.

5.1. Households Raising Various Types of Livestock

According to the 2022 Livestock Survey, a total of 1,241,402 livestock households were recorded. The number excludes the households that were engaged in poultry raising.

Out of the total number of livestock-raising households recorded, 438,423 households were involved in cattle rearing. Southern Province had the highest contribution to this national total providing 33.4% of the cattle-

raising households (see Table 5.1 and Figure 5.1).

With regard to goat rearing, 593,870 households were recorded with Southern Province accounting for the highest number of households at 33.3%. The least contributor was Lusaka Province standing at 3.0%.

A total of 226,856 households were recorded to be involved in pig rearing with the highest number coming from Southern Province at 30.6%.

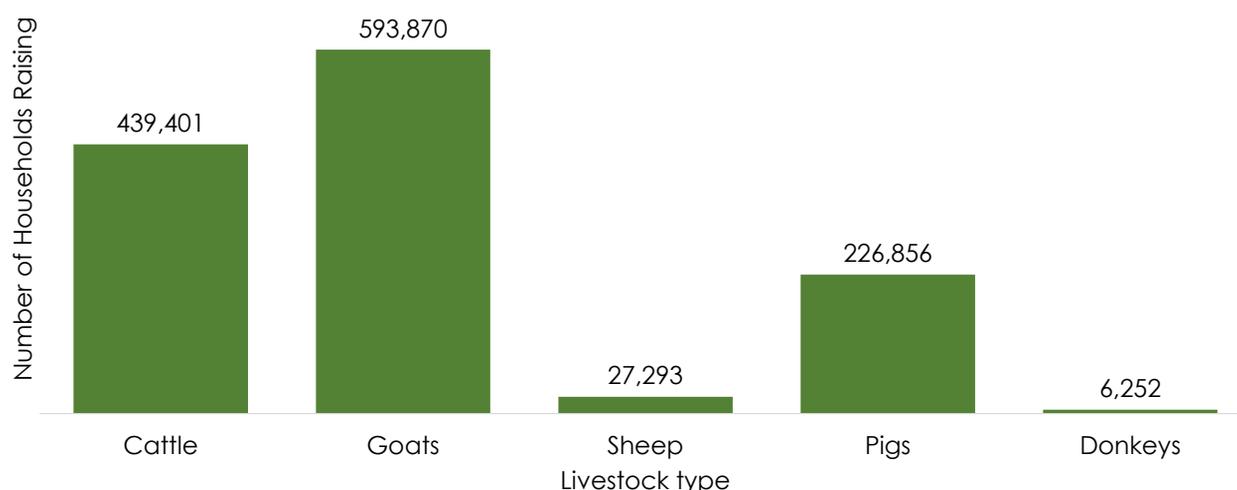
There were 27,293 households rearing sheep in the country, of which 49.4% were from Southern Province. The lowest number of households involved in sheep production were from Muchinga Province that did not register a single number.

Donkeys were raised by a total of 6,252 households countrywide. Southern Province had the highest contribution at 50.9% while the Copperbelt, Luapula, Muchinga, Northern and North-western Provinces did not record any household that was raising donkeys.

Table 5.1: Number and Percentage of Households Raising Various Types of Livestock

Province	Number of Households by Type of Livestock Raised as at 30th April, 2022									
	Cattle		Goats		Sheep		Pigs		Donkeys	
	Number	%	Number	%	Number	%	Number	%	Number	%
Central	57,834	13.2	72,597	12.2	4,834	17.7	16,492	7.3	994	15.9
Copperbelt	8,863	2.0	25,304	4.3	2,766	10.1	10,430	4.6	0	0.0
Eastern	124,968	28.4	89,503	15.1	3,068	11.2	46,377	20.4	126	2.0
Luapula	979	0.2	43,357	7.3	1,144	4.2	6,790	3.0	0	0.0
Lusaka	9,634	2.2	18,004	3.0	594	2.2	2,526	1.1	51	0.8
Muchinga	12,740	2.9	46,036	7.8	0	-	19,964	8.8	0	0.0
Northern	25,910	5.9	62,633	10.5	620	2.3	29,530	13.0	0	0.0
North-Western	11,944	2.7	34,617	5.8	740	2.7	11,976	5.3	0	0.0
Southern	146,450	33.3	176,876	29.8	13,488	49.4	69,392	30.6	3,180	50.9
Western	40,079	9.1	24,943	4.2	39	0.1	13,379	5.9	1,901	30.4
Zambia	439,401	100.0	593,870	100	27,293	100	226,856	100	6,252	100

Figure 5.1: Number of Livestock-raising Households



5.3 Purpose of Raising Livestock by Number of Households

The major reasons for raising livestock are highlighted in the Table 5.2. A total number of 439,401 households were recorded as cattle-raising of which 66.7% indicated their main purpose of keeping cattle was for draught power. According to the survey, 83.1% of the country's 593,872 goat raising households indicated that their main purpose was for

selling/income. Another 13.6% kept goats for home consumption. Out of a total of 27,292 sheep keeping households, 85.6% reported raising for selling/income. Pig raising households were 226,858 of which 86% kept sheep for selling/income. Further, 91.6% of donkey raising households reported raising donkeys for draught power.

Table 5.2: Purpose of Raising Livestock by Number of Households

Percentage Distribution of Households by Purpose of Raising Livestock								
Livestock type	Meat (home consumption)	Milk	Draught power	Aesthetic value	Selling/income	Manure	Other	Total
Cattle	2.2	0.2	66.7	4.3	23.3	2.1	1.2	439,401
Goats	13.6	0.0	0.0	2.0	83.1	0.3	1.0	593,872
Sheep	11.8	0.0	0.0	1.7	85.6	0.2	0.6	27,292
Pigs	11	0	0	2	86	0	1	226,858
Donkeys	0.0	0.0	91.6	6.4	0.0	0.0	2.0	6,251

5.5 Major Constraints in Livestock Production

This section discusses the major constraints faced among livestock-raising households according to livestock during the survey period (see Table 5.3).



Table 5.3: Major Constraints Faced by Livestock-Raising Households

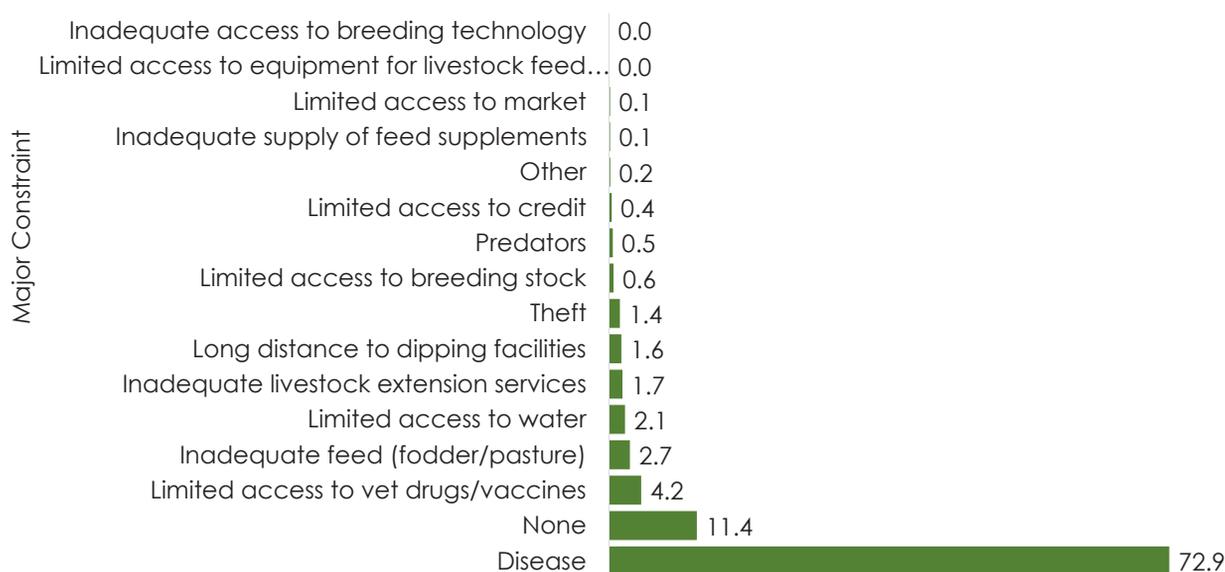
Major Constraints Faced	Livestock Raised						Total Households
	Cattle	Goats	Sheep	Pigs	Donkeys	Any other livestock	
Disease	72.9	48.6	30.4	37.6	21.1	26.2	702,501
Inadequate livestock extension services	1.7	2.5	6.1	2.6	2.0	0.0	29,914
Inadequate feed (fodder/pasture)	2.7	6.5	6.1	19.7	2.1	6.9	97,396
Limited access to breeding stock	0.6	1.2	1.1	1.2	15.9	0.6	13,519
Long distance to dipping facilities	1.6	0.2	0.0	0.0	0.0	0.0	8,075
Limited access to credit	0.4	0.3	0.2	0.2	0.0	0.0	3,958
Limited access to market	0.1	0.1	0.3	0.7	0.0	4.3	3,480
Predators	0.5	2.0	1.7	1.0	0.0	17.3	17,860
Theft	1.4	7.9	7.0	1.9	2.0	5.7	59,676
Limited access to vet drugs/vaccines	4.2	1.9	2.2	1.2	0.0	0.0	32,677
Inadequate supply of feed supplements	0.1	0.9	0.3	4.4	1.8	0.5	16,430
Limited access to water	2.1	0.9	1.3	0.0	12.0	0.0	15,506
Other	0.2	1.2	1.0	0.4	0.0	0.0	8,829
Inadequate access to breeding technology	0.0	0.2	0.1	0.0	0.0	0.0	1,228
Limited access to equipment for livestock feed processing	0.0	0.2	0.0	0.5	0.0	0.0	2,294
None	11.4	25.5	42.0	28.6	43.1	38.8	282,297
Total	100.0	100.0	100.0	100.0	100.0	100.0	1,295,640

5.5.1. Major Constraints Affecting Cattle Production

The majority (72.9%) of the cattle raising households reported disease as a major constraint faced followed by limited access to veterinary drugs and vaccines at 4.2 %.

Meanwhile, 11.4% of cattle raising households did not experience any constraints during the reference period (see Figure 5.2).

Figure 5.2: Percentage of Households Reporting Major Constraint in Cattle Production

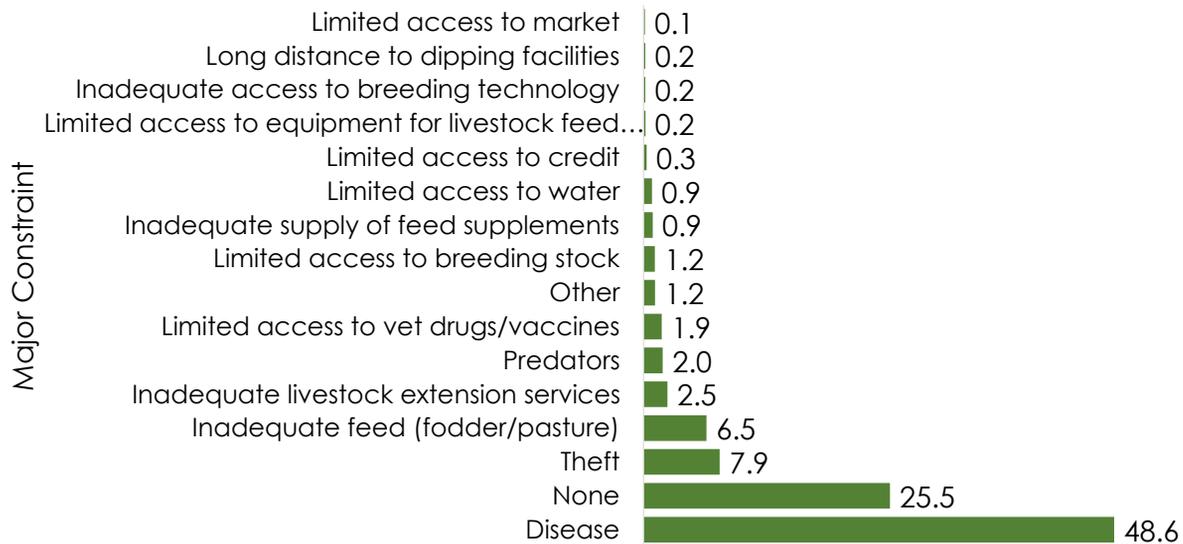


5.5.2. Major Constraints Affecting Goat Production

Disease was reported as the major constraint (48.6%) faced by the Goat-Raising households followed by thefts and inadequate feed, fodder or pasture at 7.9% and 6.5% respectively. In the

meantime, 25.5% of goat-raising households reported no constraints during the survey period (see Figure 5.3).

Figure 5.3: Percentage of Households Reporting Major Constraint in Goat Production



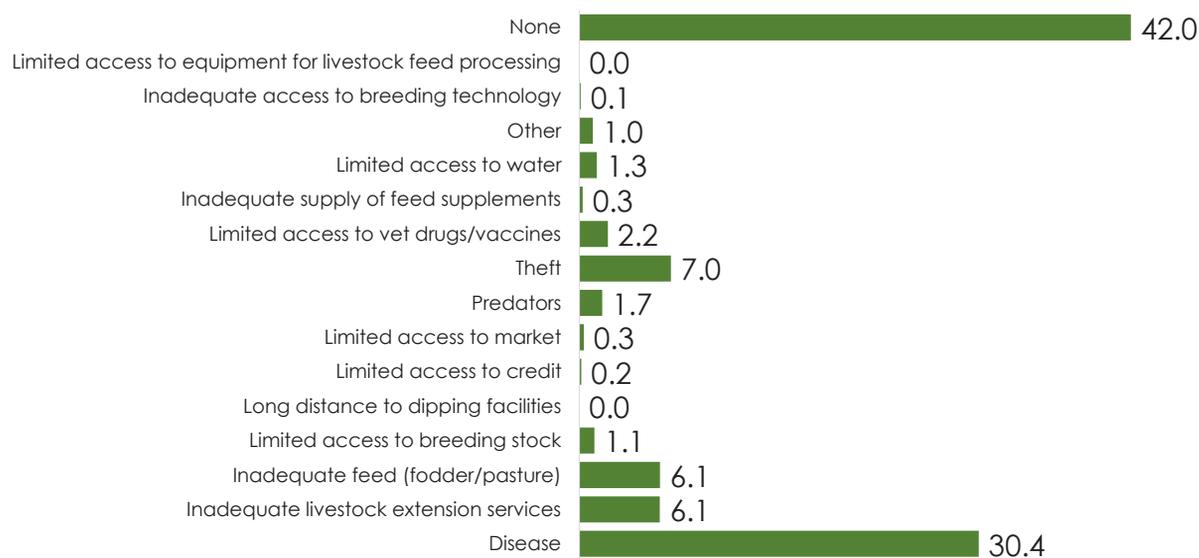
5.5.3. Major Constraints Affecting Sheep Production

Figure 5.4 shows that disease was reported as the major constraint (30.4%) faced by the sheep-raising households followed by inadequate livestock extension services and feed, fodder

or pasture at 6.1% each. Meanwhile, 42.0% of sheep-raising households reported facing no constraints during the reference period.



Figure 5.4: Percentage of Households Reporting Major Constraint in Sheep Production

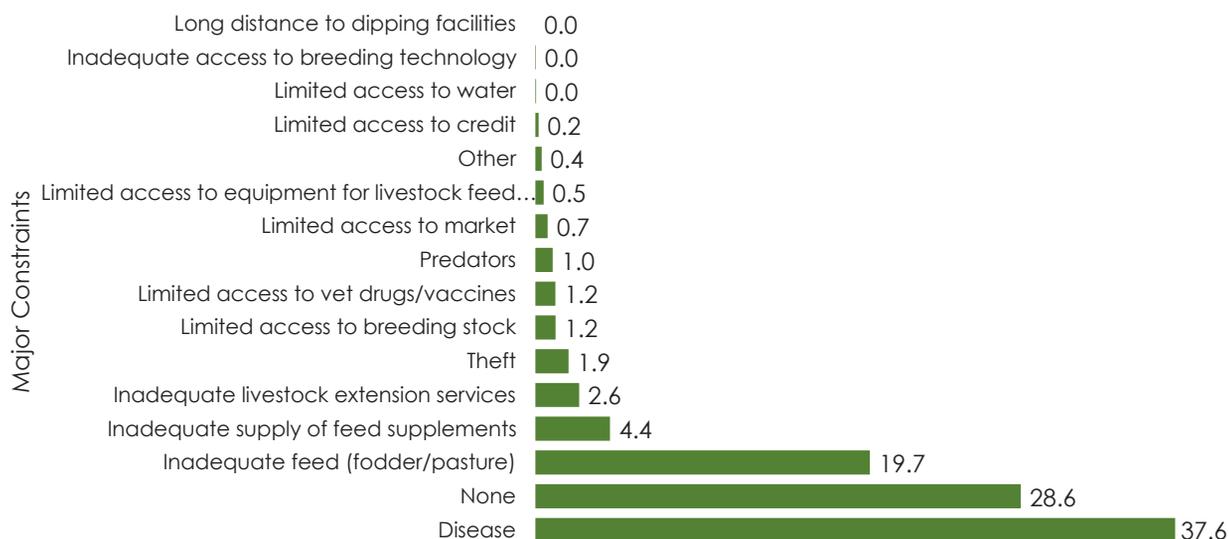


5.5.4. Major Constraints Affecting Pig Production

Figure 5.5 shows that disease was reported as the major constraint (37.6%) faced by the pig-raising households followed by

inadequate feed, fodder or pasture and supply of supplementary feed at 19.7% and 4.4% respectively. Meanwhile, 28.6% of pig-raising households reported having not faced any constraint during the reference period.

Figure 5.5: Percentage of Households Reporting Major Constraint in Pig Production

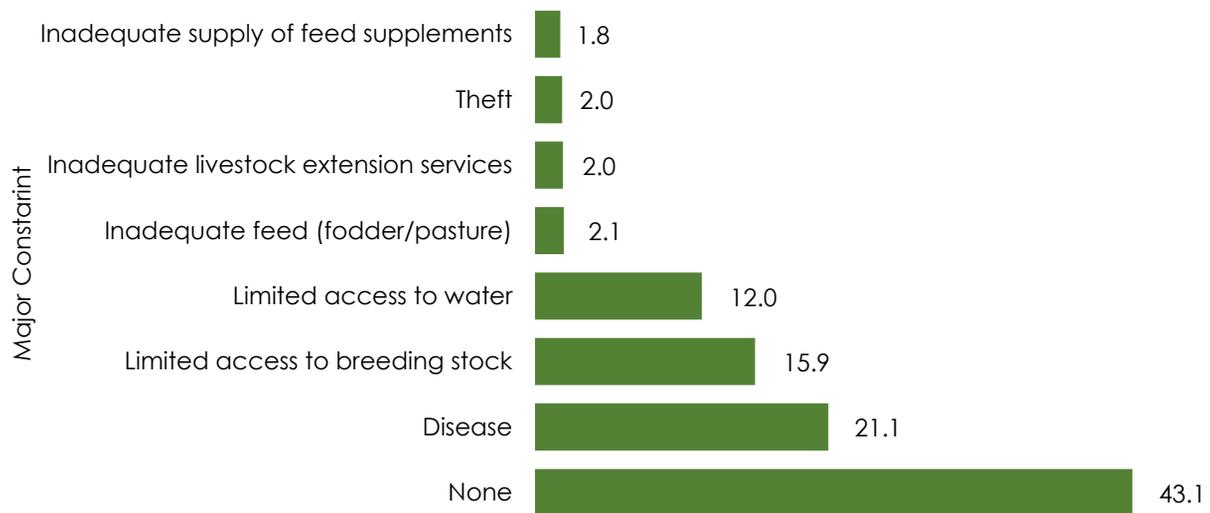


5.5.5. Major Constraints Affecting Donkey Production

Out of the total number of donkey-raising households, the majority (43.1%) of the donkey raising households reported having not faced any major constraints in the production of donkeys. The major constraint faced in the

production of donkeys was disease Infection at 21.1% (see Figure 5.6). Limited access to breeding stock was the second major constraint at 15.9%.

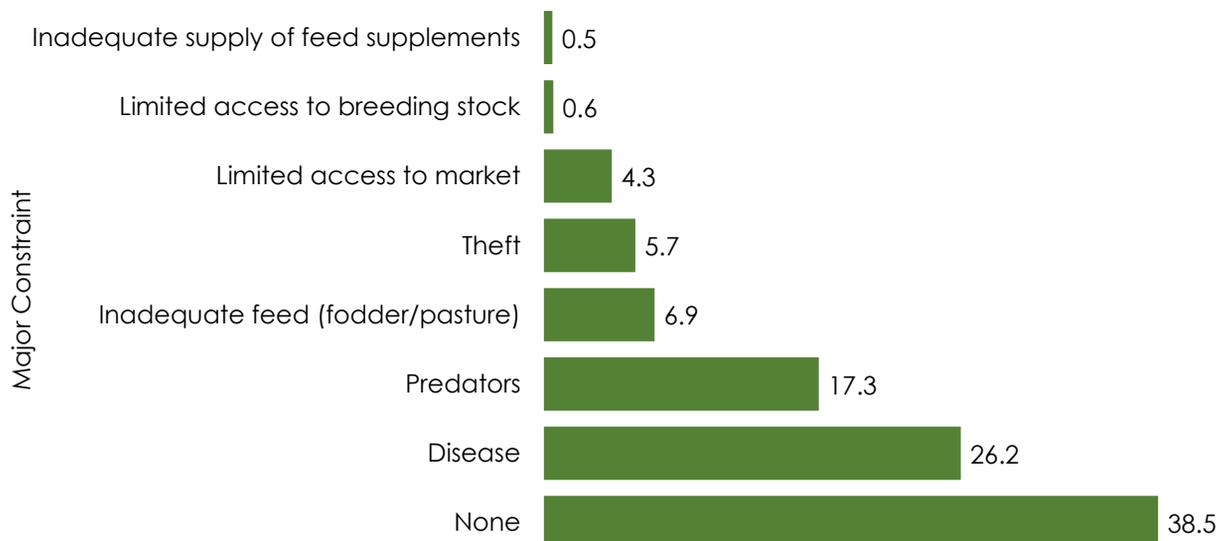
Figure 5.6: Percentage of Households Reporting Major Constraint in Donkey Production



The majority (38.5%) of the households raising other livestock types reported having not faced any constraints. The majority of households that faced constraints reported disease as the major constraint in the production of other

livestock types at 26.2%. The second and third major constraints reported were predation and inadequate feed, fodder and pasture at 17.3% and 6.9%, respectively (See Figure 5.7).

Figure 5.7: Percentage of Households Reporting Major Constraint Affecting the Production of Other Livestock Types





5.6 Major Diseases Affecting Livestock

This section highlights the major diseases that affected the livestock species in the country

during the period 1st May, 2021 to 30th April, 2022. Overall results are shown in Table 5.4.

Table 5.4: Percentage and Number of Households affected by Diseases

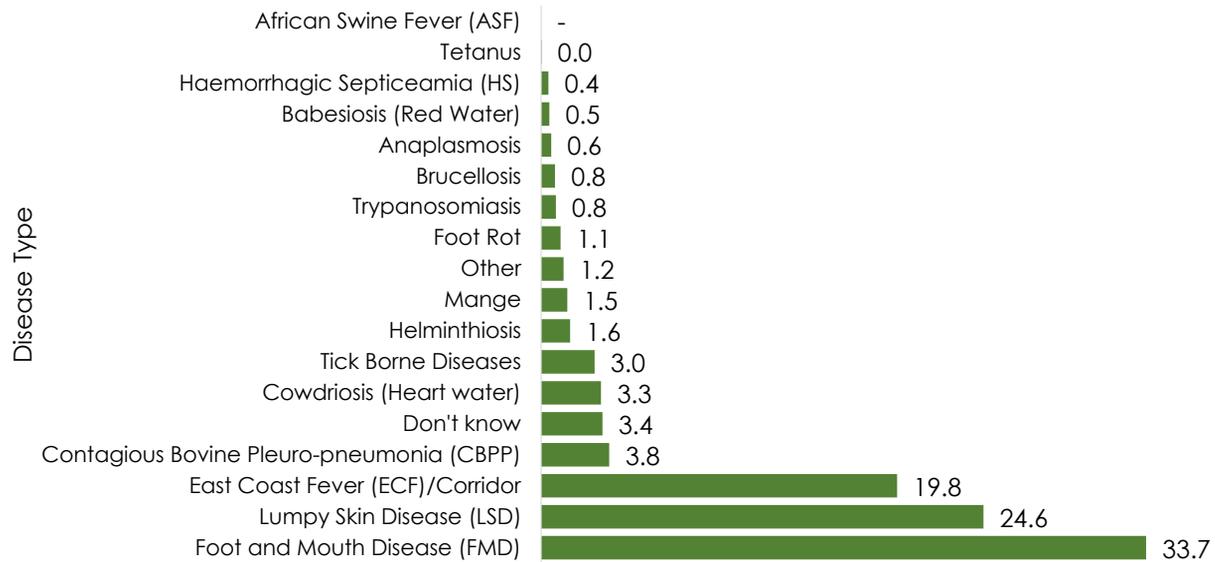
Major Disease Affecting Livestock	Cattle	Goats	Sheep	Pigs	Donkeys	Any Other livestock	Total Households affected
Brucellosis	0.8	4.6	2.1	1.6	0.0	0.0	16,125
Contagious Bovine Pleuro-pneumonia (CBPP)	3.8	0.0	0.0	0.0	0.0	0.0	10,834
Lumpy Skin Disease (LSD)	24.6	0.0	0.0	0.0	0.0	2.0	70,419
East Coast Fever (ECF)/Corridor	19.8	0.0	0.0	0.0	0.0	51.9	57,391
Helminthiosis	1.6	20.3	12.6	8.2	0.0	0.0	66,766
African Swine Fever (ASF)	0.0	0.0	0.0	50.0	0.0	0.0	39,287
Tick Borne Diseases	3.0	3.9	2.0	2.3	33.0	0.0	21,323
Trypanosomiasis	0.8	1.4	2.7	1.6	0.0	0.0	7,475
Foot Rot	1.1	2.0	0.9	0.6	40.9	38.1	10,150
Tetanus	0.0	1.0	0.9	0.3	2.9	0.0	3,148
Mange	1.5	18.9	10.9	5.3	0.0	0.0	60,117
Other	1.2	11.6	10.7	6.5	16.1	0.0	41,066
Haemorrhagic Septicemia (HS)	0.4	3.1	8.1	1.9	0.0	0.0	11,581
Foot and Mouth Disease (FMD)	33.7	4.1	1.6	2.2	0.0	0.0	109,099
Babesiosis (Red Water)	0.5	4.4	5.4	0.6	0.0	0.0	13,931
Anaplasmosis	0.6	2.7	1.9	2.2	0.0	0.0	10,648
Cowdriosis (Heart water)	3.3	8.4	15.2	0.0	0.0	0.0	33,264
Don't know	3.4	13.7	24.8	16.8	7.1	8.0	61,960
Total	100.0	100.0	100.0	100.0	100.0	100.0	644,584

5.6.1 Major Diseases Affecting Cattle

Figure 5.8 shows the number of households reporting on livestock diseases affecting cattle. At national level, the majority, 33.7% of the cattle raising households reported Foot and

Mouth followed by Lumpy Skin Disease (LSD) and East coast Fever (ECF)/ Corridor at 24.6% and 19.8 %, respectively.

Figure 5.8: Major diseases affecting Cattle in Households

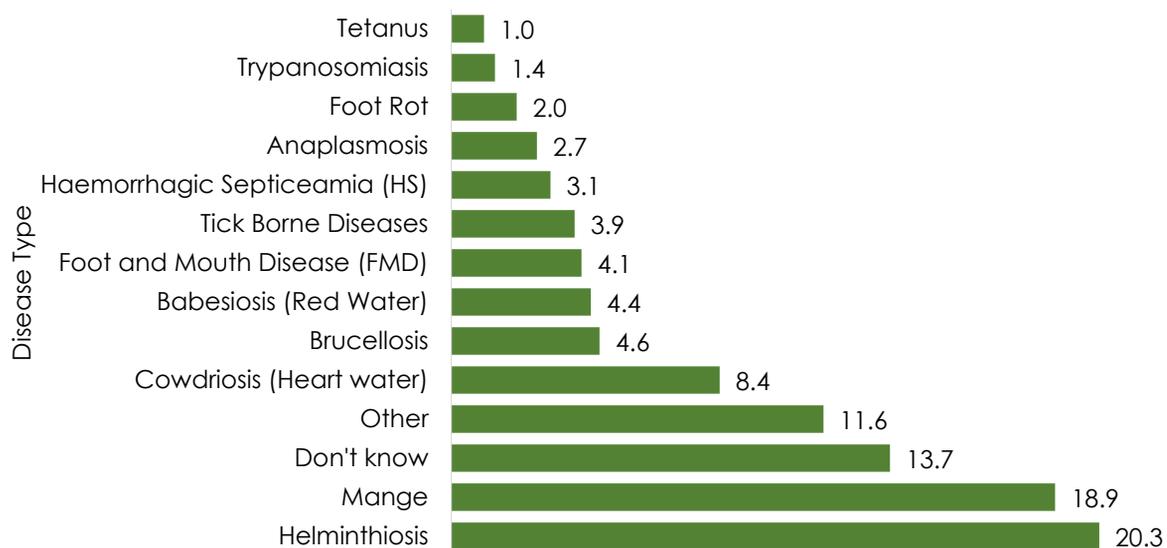


5.6.2 Major Diseases Affecting Goats

Helminthiosis was reported as a major disease affecting goats at 20.3% of the national total number of households reporting a disease in

goat production followed by Mange at 18.9 % and in the third place was Cowdriosis (Heart water) at 8.4% (see Figure 5.9).

Figure 5.9: Major Diseases affecting Goats in Households



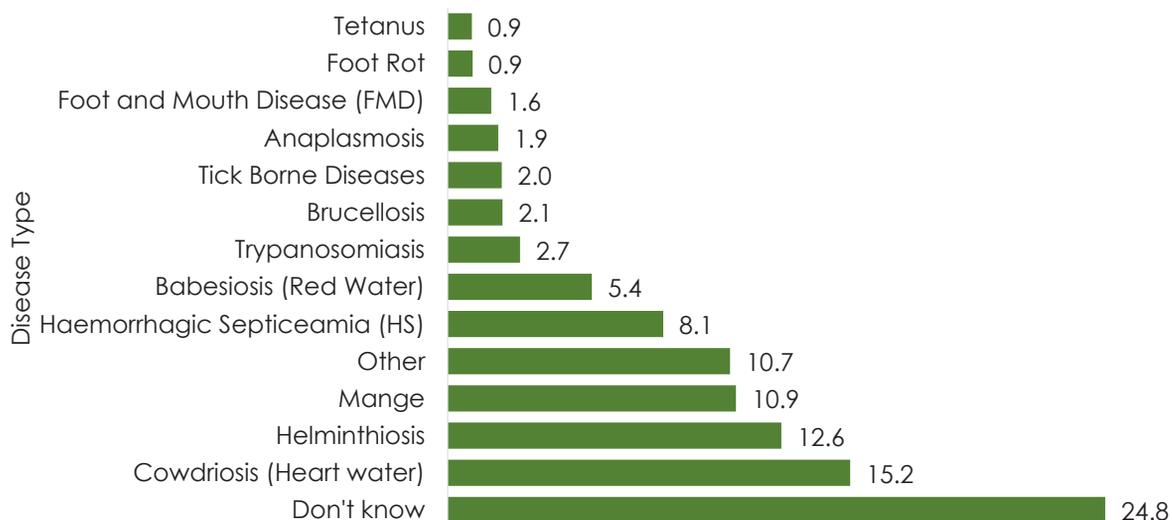
5.6.3 Major Diseases Affecting Sheep

Figure 5.10 shows that Cowdriosis was the major disease affecting sheep at 15.2% out of the national total number of households reporting a disease in sheep production. This was followed by Helminthiosis and

Mange at 12.6% and 10.9% of the sheep raising households. However, the majority of households (24.8%) reported that they did not know the disease that affected their sheep.



Figure 5.10: Major Diseases affecting Sheep in Households

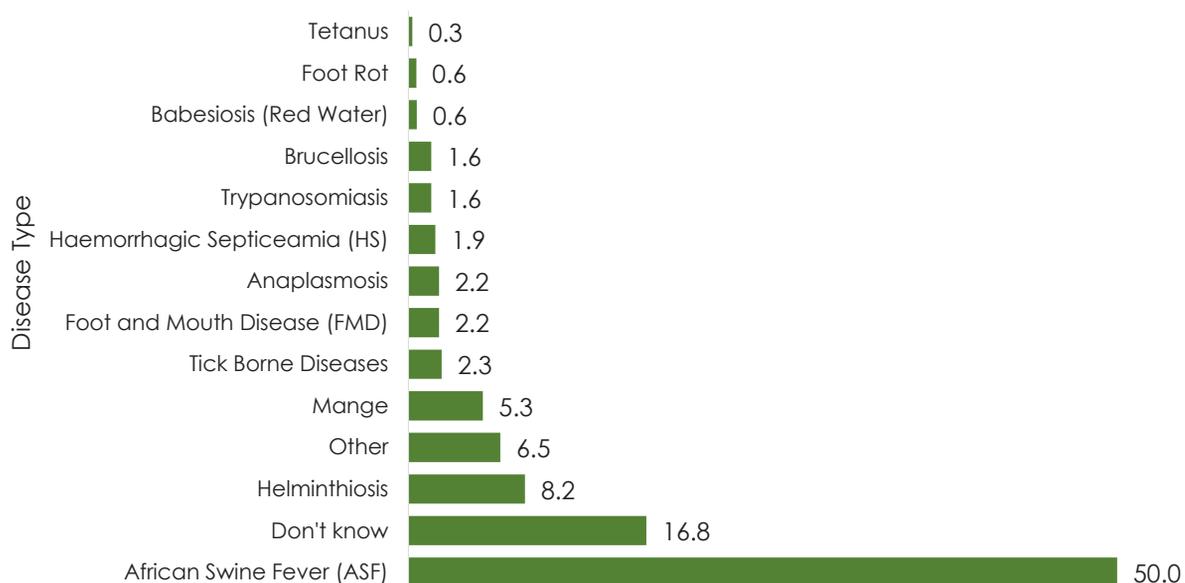


5.6.4 Major Diseases Affecting Pigs

African Swine Fever (ASF) was reported as a major disease affecting pigs at 50.0% of the total number of households reporting a disease in pig production. This was followed

by Helminthiosis reported by 8.2% of pig raising households. However, Figure 5.11 show that 16.8% of the households did not know the disease that affected their pigs.

Figure 5.11: Major diseases affecting Pig in Households

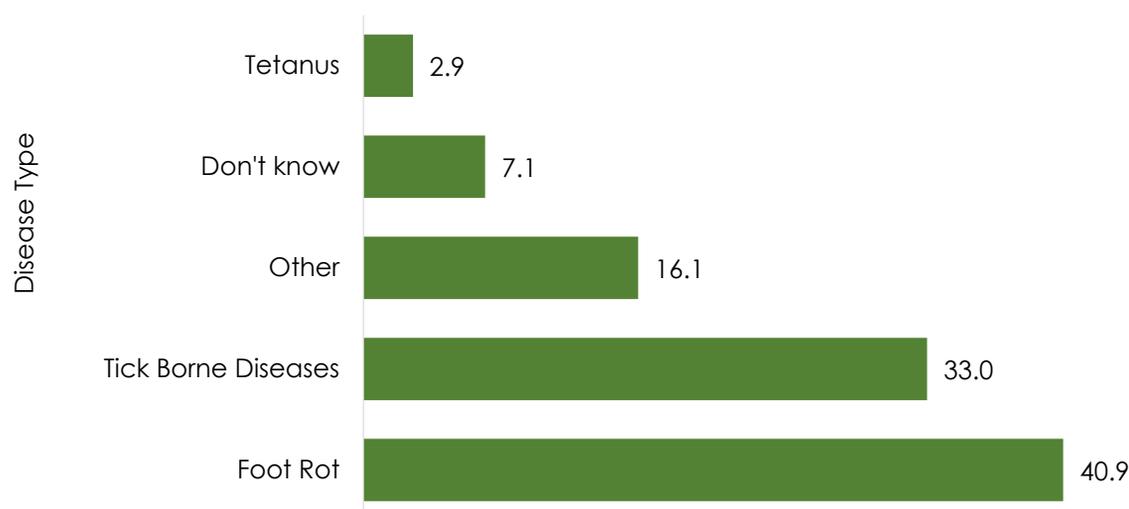


5.6.5 Major Diseases Affecting Donkeys

Foot Rot was reported as the major disease affecting donkeys at 40.9% of the total number of households reporting a disease in the sector.

This was followed by Tick Borne Diseases at 33.0% of households reporting a disease (see Figure 5.12).

Figure 5.12: Major diseases affecting Donkey in Households



5.7 Cattle Production

5.7.1 Opening and Closing Stock of Cattle for Households and Establishments

The number of cattle raised by province on 1st May, 2021 (Opening Stock) and the number of cattle raised by province on 30th April,

2022 (Closing Stock) are shown in Table 5.5 and Figure 5.13. At national level, the cattle population increased by 1.4% (65,551).

Table 5.7: Opening and Closing Stock of Cattle by Province

Province	Total Cattle Raised		Population Change	
	1st May 2021	30th April, 2022	Increase/Decrease	%
Central	784,872	786,842	1,970	0.3
Copperbelt	79,050	77,823	-1,226	-1.6
Eastern	699,734	716,368	16,634	2.4
Luapula	13,414	14,072	658	4.9
Lusaka	152,049	146,828	-5,222	-3.4
Muchinga	72,906	88,277	15,371	21.1
Northern	95,660	104,760	9,100	9.5
North-western	65,193	64,897	-296	-0.5
Southern	2,223,397	2,216,076	-7,321	-0.3
Western	447,147	483,030	35,883	8.0
Zambia	4,633,422	4,698,972	65,551	1.4



The overall cattle population increased by 1.4%. Central, Eastern, Luapula, Muchinga, Northern and Western Provinces recorded increases in the population of cattle by 0.3%, 2.4%, 4.9%,

21.2%, 9.5% and 8.0%, respectively. The rest of the provinces reported decreases with Lusaka Province recording the biggest decrease of 3.4%.

Figure 5.13: Percentage change in the Opening and Closing Stock of Cattle for Households and Establishments

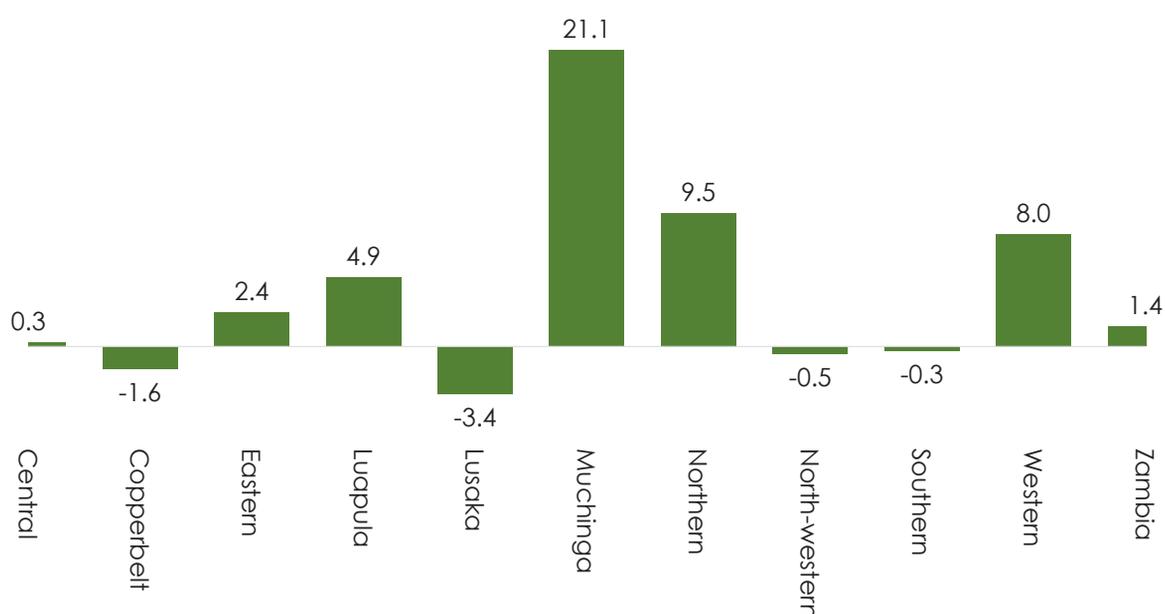


Table 5.6: show the number of cattle raised by households and establishments by province. Of the 4,698,973 cattle in the country, 93.9%

[4,411,650] were raised by households while 6.1% [287,323] were raised by establishments.

Table 5.6: Number of Cattle Raised by Households and Establishments as at 30th April 2022

Province	Number of cattle raised by households and establishments by province				Total Cattle Raised
	Households		Establishments		
	Number	%	Number	%	
Central	689,117	15.6	97,725	34.0	786,842
Copperbelt	50,625	1.1	27,198	9.5	77,823
Eastern	713,297	16.2	3,071	1.1	716,368
Luapula	10,560	0.2	3,512	1.2	14,072
Lusaka	130,862	3.0	15,966	5.6	146,828
Muchinga	83,528	1.9	4,749	1.7	88,277
Northern	102,821	2.3	1,939	0.7	104,760
North-western	57,909	1.3	6,988	2.4	64,897
Southern	2,096,084	47.5	119,992	41.8	2,216,076
Western	476,847	10.8	6,183	2.2	483,030
Zambia	4,411,650	100.0	287,323	100.0	4,698,973

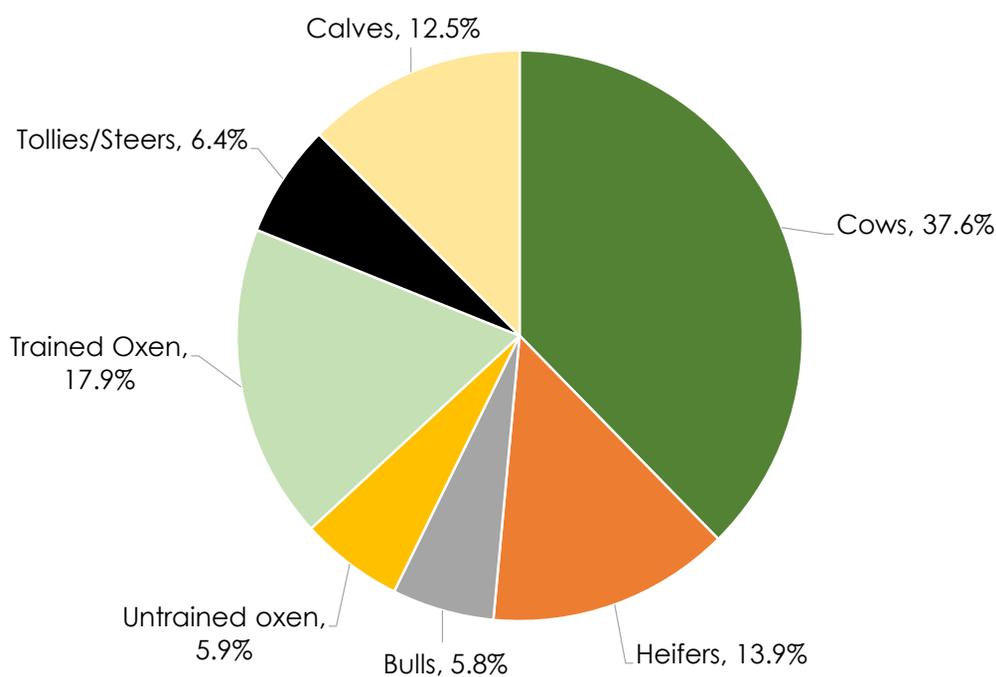
The cattle herd structure for households by province as at 30th April, 2022 is shown in Table 5.7 and Figure 5.14. Cows constituted the

larger percentage at 37.6% followed by Heifers and Calves at 13.9% and 12.5%, respectively. The least were Bulls at 5.9%.

Table 5.7: Cattle Herd Structure for households by Province as at 30th April, 2022

Province	Cattle Category Raised (Percent)							
	Total	Cows	Heifers	Bulls	Untrained	Trained	Tollies/ Steers	Calves
	Cattle				oxen	Oxen		
Central	689,117	231,005	114,667	38,099	54,451	143,226	41,509	66,160
Copperbelt	50,625	17,596	4,792	8,806	907	9,478	2,306	6,740
Eastern	713,297	257,067	71,981	37,944	21,549	185,979	33,008	105,769
Luapula	10,560	4,435	1,216	1,619	256	.	602	2,432
Lusaka	130,862	57,368	17,526	6,375	4,503	19,466	7,411	18,213
Muchinga	83,528	47,555	6,016	8,516	3,212	3,843	2,336	12,050
Northern	102,821	37,809	9,172	12,820	2,167	24,203	3,677	12,973
North-Western	57,909	28,987	3,675	4,782	541	14,390	813	4,721
Southern	2,096,084	777,724	330,986	98,340	154,638	290,742	165,871	277,783
Western	476,847	200,107	51,520	39,837	17,094	96,571	25,519	46,199
Number	4,411,650	1,659,653	611,551	257,138	259,318	787,898	283,052	553,040
Percentage	100	37.6	13.9	5.8	5.9	17.9	6.4	12.5

Figure 5.14: Percentage distribution for Cattle herd structure under Households





5.7.3 Average Number of Cattle Raised per Household and Establishment

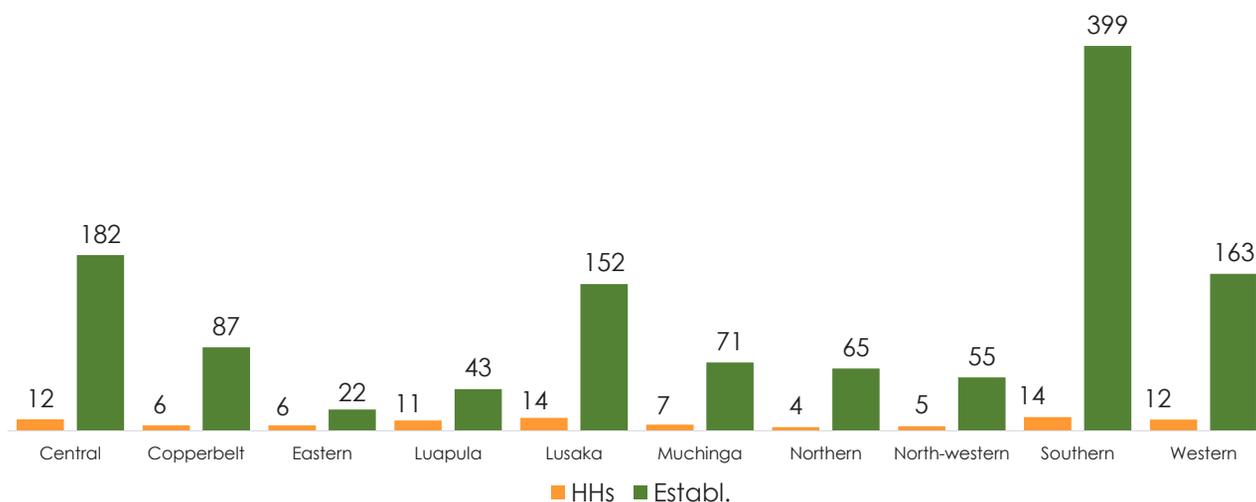
The average number of cattle raised by province as at 30th April 2022 is shown in Table 5.8 and Figure 5.15. At national level the average number of cattle raised per household was 10. Southern Province recorded the highest average number of cattle raised per household at 14 and Northern Province recorded the lowest at

4. At national level the average number of cattle raised per establishment was 165. Southern Province recorded the highest average number of cattle raised per establishment at 399 and Eastern Province recorded the lowest average at 22.

Table 5.8: Average Number of Cattle Raised Per Household and Establishment as at 30th April 2022

Province	Cattle-raising		Number of Cattle Raised		Average Number of Cattle Raised	
	Households	Establishments	HHs	Establishments	HHs	Establishments
Central	57,834	537	689,117	97,725	12	182
Copperbelt	8,863	314	50,625	27,198	6	87
Eastern	124,968	138	713,297	3,071	6	22
Luapula	979	81	10,560	3,512	11	43
Lusaka	9,634	105	130,862	15,966	14	152
Muchinga	12,740	67	83,528	4,749	7	71
Northern	25,910	30	102,821	1,939	4	65
North-western	11,944	126	57,909	6,988	5	56
Southern	146,450	301	2,096,084	119,992	14	399
Western	40,079	38	476,847	6,183	12	163
Zambia	439,401	1,737	4,411,650	287,322	10	165

Figure 5.15: Average Number of Cattle Raised per Household and Establishment



5.7.4 Cattle-raising Households by Size of Herd Raised

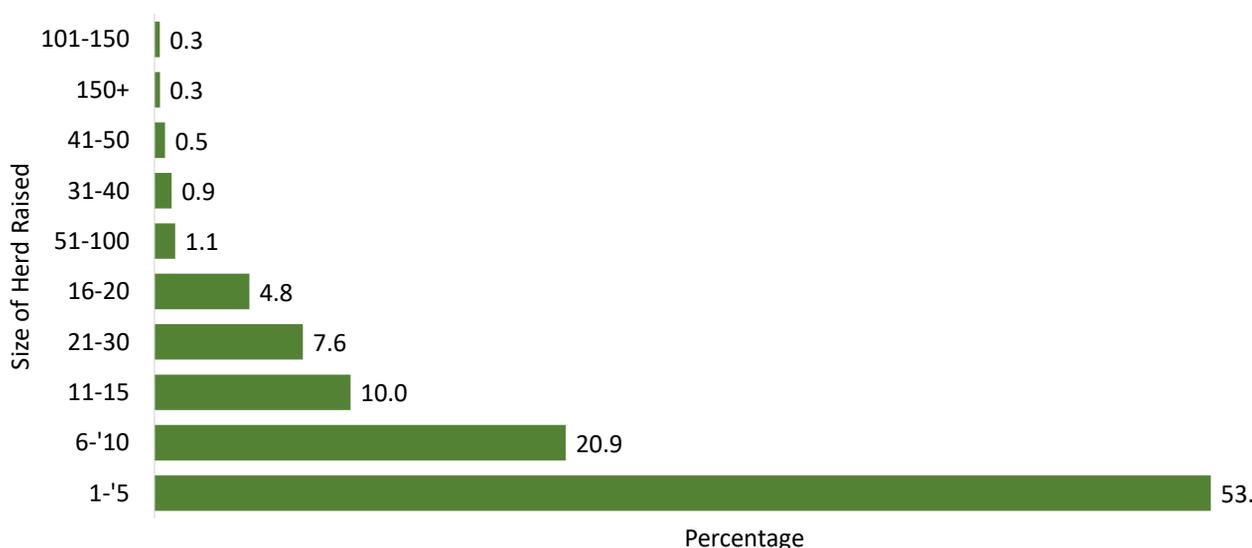
At national level, majority of households raised from 1 to 5 cattle accounting for 54% of the 439,401 cattle-raising households. This was followed by those raising between 6 and 10

cattle at 21% while cattle-raising households with over 20 cattle accounted for 11% (see Table 5.9 and Figure 5.16).

Table 5.9: Percentage of Cattle – Raising Households by Size of Herd Raised as at 30th April 2022

PROVINCE	Size of Herd Raised										Total %	Cattle Raising Households
	1-5	6-10	11-15	16-20	21-30	31-40	41-50	51-100	101-150	150+		
Central	39	28	16	7	7	0	1	1	0	1	100	57,646
Copperbelt	65	21	2	7	5	0	0	0	0	0	100	7,703
Eastern	68	20	7	2	3	0	0	0	0	0	100	124,257
Luapula	17	62	0	0	21	0	0	0	0	0	100	979
Lusaka	52	23	6	4	9	0	1	3	1	1	100	9,219
Muchinga	58	28	8	2	4	0	0	0	0	0	100	12,739
Northern	75	18	5	2	0	0	0	0	0	0	100	25,910
North-Western	81	9	4	2	4	1	0	0	0	0	100	11,873
Southern	42	20	12	7	13	2	1	2	1	0	100	145,293
Western	50	22	10	4	10	1	1	2	0	0	100	39,684
Total	54	21	10	5	8	1	1	1	0	0	100	435,303

Figure 5.16: Percentage of Cattle-raising Households by Size of Herd Raised





5.7.6 Number of Cattle by Sex in Households

Table 5.10 shows the number of cattle raised in the country by sex as at 30th April 2022. The female cattle were the majority raised recording 50.9% (2,244,334) of the total national household cattle population.

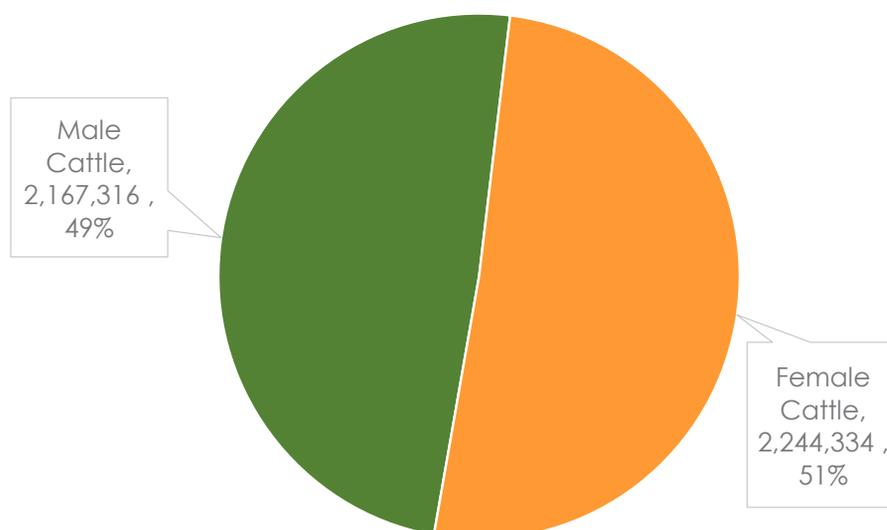
Muchinga Province recorded the largest percentage of female cattle at 64% while Northern recorded the lowest at 41%.

Table 5.10: Number and Percentage of Cattle by Sex and Province as at 30th April 2022

Number and Sex of Cattle Raised as at 30th April, 2022					
Province	Total Cattle	Female Cattle		Male Cattle	
		Number	%	Number	%
Central	689,117	341,778	49.6	347,339	50.4
Copperbelt	50,625	24,326	48.1	26,299	51.9
Eastern	713,297	332,244	46.6	381,053	53.4
Luapula	10,560	6,924	65.6	3,636	34.4
Lusaka	130,862	80,595	61.6	50,267	38.4
Muchinga	83,528	53,677	64.3	29,851	35.7
Northern	102,821	42,578	41.4	60,243	58.6
North-Western	57,909	28,773	49.7	29,136	50.3
Southern	2,096,084	1,084,150	51.7	1,011,934	48.3
Western	476,847	249,289	52.3	227,558	47.7
Total	4,411,650	2,244,334	50.9	2,167,316	49.1

Figure 5.17 shows the percentage distribution of male and female cattle within the national household cattle population of 4,411,650..

Figure 5.17: Percent Distribution of Sex of Cattle



5.7.7 Number of Cattle Owned by Households and Female Members of Households

Of the 4,698,973 cattle in the country, 93.9% (4,411,650) were raised by households while 6.1% (287,323) were raised by establishments. Out of this number of cattle raising households,

919,788 female households owned 20.8% of the total number of cattle raised. A total of 3,123,394 male households owned 70.8% of the total number of cattle raised (see Table 5.11).

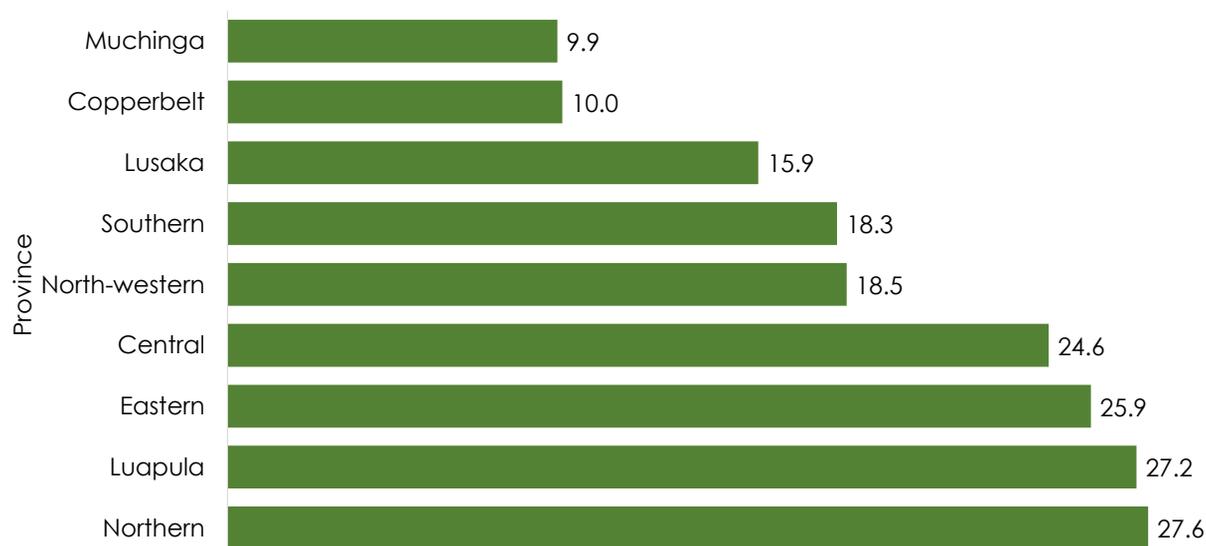
Table 5.11: Cattle Ownership by Male and Female Members of Households as at 30th April 2022

Province	Total Cattle Raised						
	Raised by Households	Owned by Households		Owned by Females Household Members		Owned by Male Household Members	
	Number	Number	%	Number	%	Number	%
Central	689,117	671,058	97.4	169,558	24.6	501,500	72.8
Copperbelt	50,625	46,215	91.3	5,080	10.0	41,135	81.3
Eastern	713,297	706,048	99.0	184,515	25.9	521,533	73.1
Luapula	10,560	10,015	94.8	2,876	27.2	7,139	67.6
Lusaka	130,862	127,808	97.7	20,812	15.9	106,996	81.8
Muchinga	83,528	82,450	98.7	8,257	9.9	74,193	88.8
Northern	102,821	101,266	98.5	28,365	27.6	72,901	70.9
North-western	57,909	50,080	86.5	10,742	18.5	39,338	67.9
Southern	2,096,084	1,886,157	90.0	382,815	18.3	1,503,342	71.7
Western	476,847	362,086	75.9	106,769	22.4	255,317	53.5
Zambia	4,411,650	4,043,181	91.6	919,788	20.8	3,123,394	70.8

In Figure 5.18, Northern Province recorded the largest percentage of cattle owned by female members of the households at 27.6% of the total number of cattle owned by households in

the province. The lowest percentage of cattle owned by female members of the households was recorded in Muchinga Province at 9.9%.

Figure 5.18: Percentage of Cattle Owned by Female Household Members





5.7.8 Number of Cattle Slaughtered by Households and Establishments

Table 5.12 and Figure 5.19 show the number of cattle slaughters among cattle-raising Households and establishments between 1st May, 2021 and 30th April 2022. A total of 111,862 cattle slaughters were recorded for both households and establishments. Southern

Province had the highest number of slaughters at 27,855 and 8,595 for both households and establishments, respectively. Central and Eastern Provinces both recorded the second highest number of cattle slaughters at 19,780 and 19,758 for households, respectively.

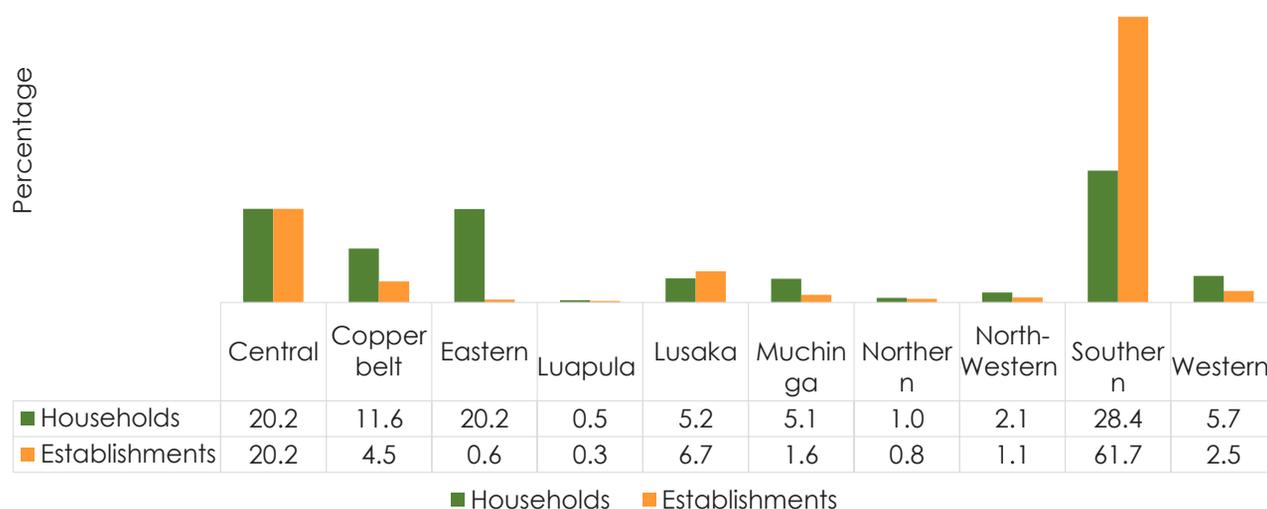
Table 5.12: Number of Cattle Slaughters in Households and Establishments (1st May, 2021 to 30th April, 2022)

Number of Slaughters in Households and Establishments					
Province	Total number of cattle slaughters	Slaughters in Households		Slaughters in Establishments	
		Number	Percent	Number	Percent
Central	22,594	19,780	20.2	2,814	20.2
Copperbelt	11,995	11,367	11.6	628	4.5
Eastern	19,843	19,758	20.2	85	0.6
Luapula	521	474	0.5	47	0.3
Lusaka	6,004	5,070	5.2	934	6.7
Muchinga	5,213	4,987	5.1	226	1.6
Northern	1,049	942	1.0	107	0.8
North-Western	2,244	2,095	2.1	149	1.1
Southern	36,450	27,855	28.4	8,595	61.7
Western	5,949	5,603	5.7	346	2.5
Zambia	111,862	97,931	100.0	13,931	100.0

At national level, Southern Province recorded the highest percentage of slaughters at 28.4% while Luapula Province reported the lowest

at 0.5%. Similarly, at establishment level Southern Province was the highest at 61.7% while Luapula recorded the least at 0.3%.

Figure 5.19: Percentage of Cattle Slaughters in Households and Establishments by Province



5.7.9 Number of Sales of Live Cattle in Households and Establishments

At national level, a total of 242,658 and 32,997 live cattle sales were recorded for households and establishments, respectively. Southern Province accounted for the highest number of live cattle sales at 118,965 and 14,108 for households and establishments respectively.

This was followed by Central Province that recorded 40,375 and 12,499 respectively from both households and establishments. The lowest sales were reported in Luapula Province at 0.6% for households and Eastern at 0.8% for establishments (see Table 5.13)

Table 5.13: Sales of Live Cattle in Households and Establishments, 1st May, 2022 -30th April, 2022

Number of Cattle Sold live in Households and Establishments by Province					
Province	Total number of cattle sold live	Sales in Households		Sales in Establishments	
		Number	Percent	Number	Percent
Central	52,873	40,374	16.6	12,499	37.9
Copperbelt	16,691	15,359	6.3	1,332	4.0
Eastern	33,732	33,415	13.8	317	1.0
Luapula	1,615	1,364	0.6	251	0.8
Lusaka	10,545	7,403	3.1	3,142	9.5
Muchinga	6,444	6,148	2.5	296	0.9
Northern	7,662	7,525	3.1	137	0.4
North-Western	3,457	3,013	1.2	444	1.3
Southern	133,073	118,965	49.0	14,108	42.8
Western	9,563	9,093	3.7	470	1.4
Total	275,655	242,658	100.0	32,997	100.0

5.7.10 Calving percentage

The calving percentage is the number of calves born in relation to the number of cows exposed for mating or servicing in the herd. The calving percentage by province during the reference

period is shown Table 5.14. The highest calving percentage was recorded in Northern Province at 60% followed by Eastern Province at 49%, while the least was recorded in Lusaka Province at 23.1%. The average calving percentage in the country was at 30.4%.

Table 5.14: Number of Cows and Calving Percentage by Province in Households, 1st May, 2022 - 30th April, 2022

Province	Number of cows	Number of calves born	Calving %
Central	600	251	41.8
Copperbelt	61	23	37.7
Eastern	608	298	49.0
Luapula	14	5	35.7
Lusaka	451	104	23.1
Muchinga	76	29	38.2
Northern	30	18	60.0
North-Western	123	33	26.8
Southern	2,649	631	23.8
Western	415	136	32.8
Zambia	5,027	1,528	30.4



5.8 Goat Production

5.8.1 Opening and Closing Stock of Goats for Households and Establishments

The number of goats raised by province on 1st May, 2021 (Opening Stock) and the number of goats raised by province on 30th April, 2022 (Closing Stock) are shown in Table 5.15. At national level, the goat population decreased by 7.6%.

Muchinga and Northern Provinces recorded an increase in the population of goats raised by 3,447 and 8,504, respectively. The rest of the provinces reported decreases with Southern Province recording the biggest decrease of 163,421.

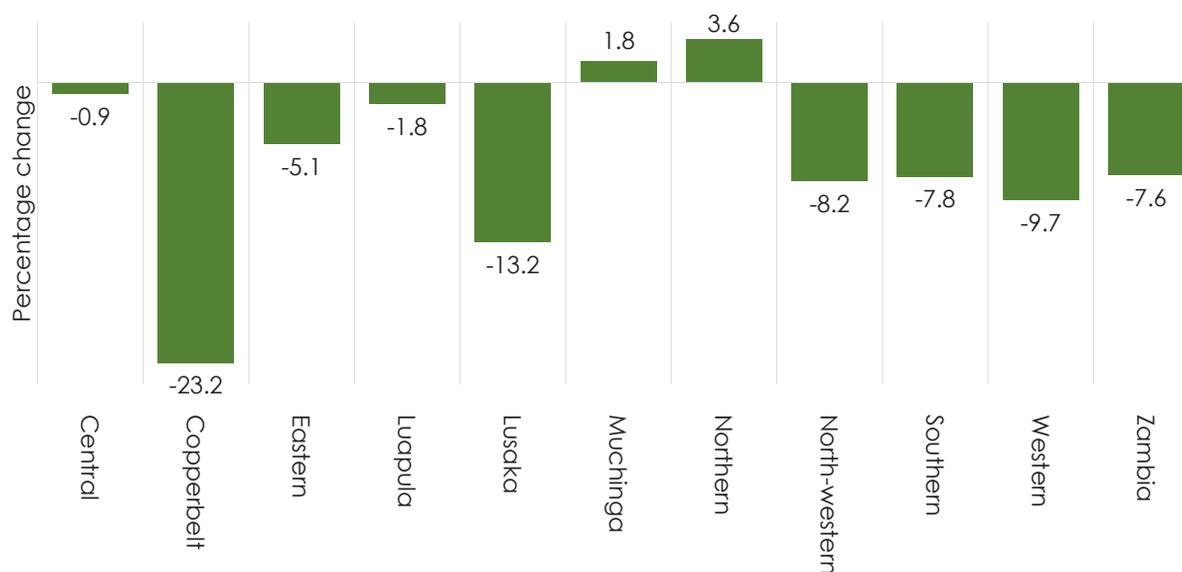
Table 5.16: Opening and Closing Stock of Goats by province

Opening Stock and Closing Stock of Goats by Province				
Province	Total Goats Raised		Population Change	
	1st May 2021	30th April, 2022	Increase/Decrease	%
Central	826,856	759,113	-7,744	-0.9
Copperbelt	270,198	207,423	-62,775	-23.2
Eastern	443,231	420,590	-22,641	-5.1
Luapula	182,742	179,523	-3,218	-1.8
Lusaka	237,435	206,022	-31,413	-13.2
Muchinga	191,677	195,124	3,447	1.8
Northern	237,083	245,588	8,504	3.6
North-western	196,353	180,343	-16,011	-8.2
Southern	2,097,719	1,934,299	-163,421	-7.8
Western	141,618	127,836	-13,782	-9.7
Zambia	4,824,912	4,455,860	-369,052	-7.6

Copperbelt Province reported the largest decrease in the goat population at 23.2%, followed by Lusaka and Western at 13.2% and

9.7%, respectively. On the other hand, Muchinga and Northern Provinces reported increases by 1.8% and 3.6%, respectively (see Figure 5.19).

Figure 5.19: Percentage Change in Goat Population among Households and Establishments



5.8.2 Number of Goats Raised by Households and Establishments

Of the 4,455,860 goats in the country, 98.8% (4,404,067) were raised by households while 1.2% (51,793) were raised by establishments (see Table 5.16 and Figure 5.38).

Table 5.16: Number of Goats Raised by Households and Establishments as at 30th April 2022

Number of Goats Raised by Households and Establishments as at 30th April, 2022					
Province	Households		Establishments		Total Goats Raised
	Number	%	Number	%	
Central	738,269	97.3	20,844	2.7	759,113
Copperbelt	200,337	96.6	7,086	3.4	207,423
Eastern	416,669	99.1	3,921	0.9	420,590
Luapula	178,159	99.2	1,364	0.8	179,523
Lusaka	204,401	99.2	1,621	0.8	206,022
Muchinga	193,632	99.2	1,492	0.8	195,124
Northern	245,008	99.8	580	0.2	245,588
North-western	175,910	97.5	4,433	2.5	180,343
Southern	1,924,288	99.5	10,011	0.5	1,934,299
Western	127,396	99.7	440	0.3	127,836
Zambia	4,404,067	98.8	51,793	1.2	4,455,860

5.8.3 Average Number of Goats Raised per Household and Establishment

At national level, the average number of goats raised per household was 7 and 45 for Establishments, as at 30th April 2022. Lusaka Province recorded the highest average number per household at 11 and Luapula Province recorded the lowest at 4. Central

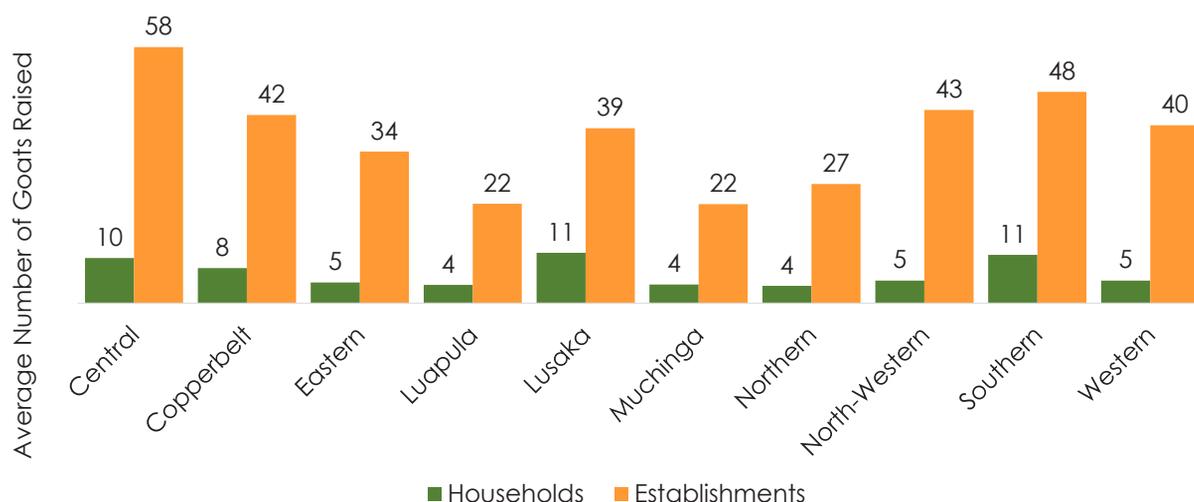
Province recorded the highest average number per establishment at 58 while Luapula and Muchinga Provinces recorded the lowest average number per establishment at 22. (see Table 5.17 and Figure 5.20)

Table 5.17: Average Number of Goats Raised Per Household and Establishment as at 30th April, 2022

Average Number of Goats Raised per Household and Establishment						
Province	Goat-raising		Number of Goats Raised		Average Number of Goats Raised	
	Households	Establishments	Households	Establishments	Households	Establishments
Central	72,597	362	738,269	20,844	10	58
Copperbelt	25,304	167	200,337	7,086	8	42
Eastern	89,503	115	416,669	3,921	5	34
Luapula	43,357	61	178,159	1,364	4	22
Lusaka	18,004	41	204,401	1,621	11	39
Muchinga	46,036	67	193,632	1,492	4	22
Northern	62,633	22	245,008	580	4	27
North-western	34,617	102	175,910	4,433	5	43
Southern	176,876	211	1,924,288	10,011	11	48
Western	24,943	11	127,396	440	5	40
Zambia	593,871	1,159	4,404,067	51,793	7	45



Figure 5.20: Average Number of Goats Raised per Household and Establishment



5.8.4 Percentage of Goat-raising Households by Herd Size

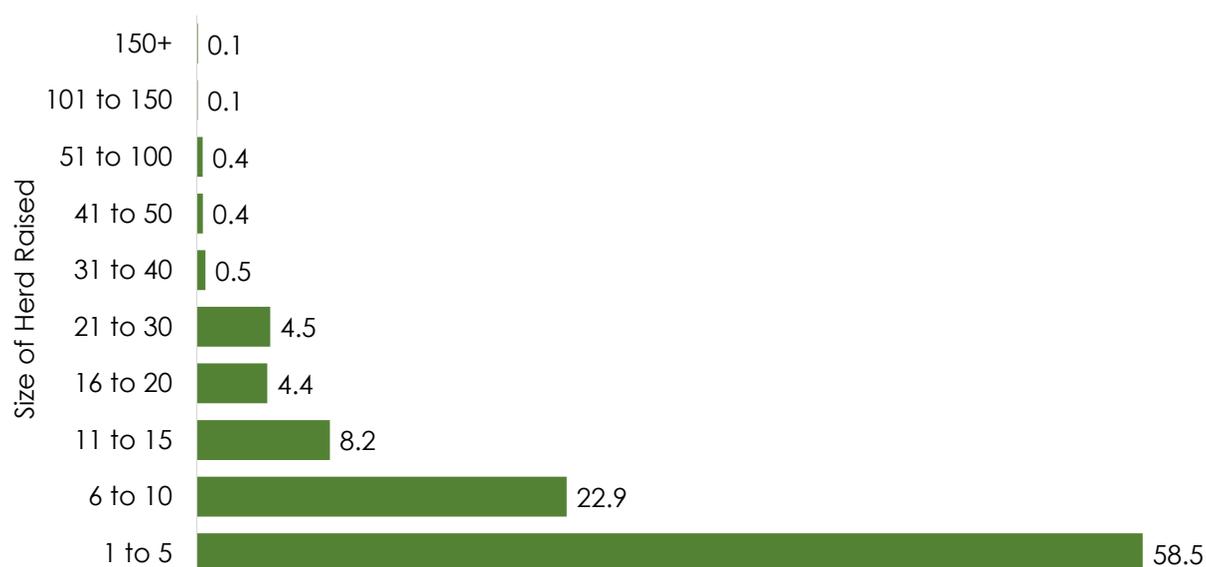
At national level, a majority of goat-raising households raised 1 to 5 goats accounting for 58.5% of the total national number of the goat raising households (581,029) followed by those raising 6 to 10 goats at 22.9%. Goat-raising households with over 20 goats accounted for

6.0% of the goat-raising households. Northern Province recorded the highest percentage of households (78.3%) raising between 1 and 5 goats while Lusaka Province was least at 41.4%. (see Table 5.18 and Figure 5.21).

Table 5.18: Percentage of Goat-Raising Households by Size of Herd Raised as at 30th April, 2022

Province	Size of Herd Raised										Total percent	Goat-raising Households
	1 to 5	6 to 10	11 to 15	16 to 20	21 to 30	31 to 40	41 to 50	51 to 100	101 to 150	150+		
Central	43.2	23.8	16.6	6.4	8.4	0.7	0.1	0.4	0.3	0.1	100.0	71,988
Copperbelt	48.6	21.8	16.9	6.7	3.9	0.8	1.1	0.2	0.0	0.0	100.0	22,355
Eastern	71.4	22.0	4.1	1.5	1.0	0.0	0.0	0.0	0.0	0.0	100.0	89,274
Luapula	69.3	26.4	1.6	1.4	1.3	0.0	0.0	0.0	0.0	0.0	100.0	40,313
Lusaka	41.4	23.8	16.7	5.6	9.0	1.4	0.3	1.3	0.4	0.0	100.0	17,879
Muchinga	74.0	22.7	3.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	100.0	44,993
Northern	78.3	19.1	1.9	0.6	0.2	0.0	0.0	0.0	0.0	0.0	100.0	61,709
North-Western	69.6	21.5	4.9	3.0	0.8	0.1	0.0	0.0	0.0	0.0	100.0	34,024
Southern	44.0	24.3	11.1	8.2	9.2	1.1	1.0	0.9	0.0	0.2	100.0	173,551
Western	70.3	20.1	5.9	2.7	0.2	0.8	0.0	0.0	0.0	0.0	100.0	24,943
Zambia	58.5	22.9	8.2	4.4	4.5	0.5	0.4	0.4	0.1	0.1	100.0	581,029

Figure 5.21: Percentage of Goat-raising Households by Size of Herd Raised



5.8.5 Number of Goats by Sex in Households

(3,083,290) and males constituted 30.0% (1,320,777) (see Table 5.19 and Figure 5.22).

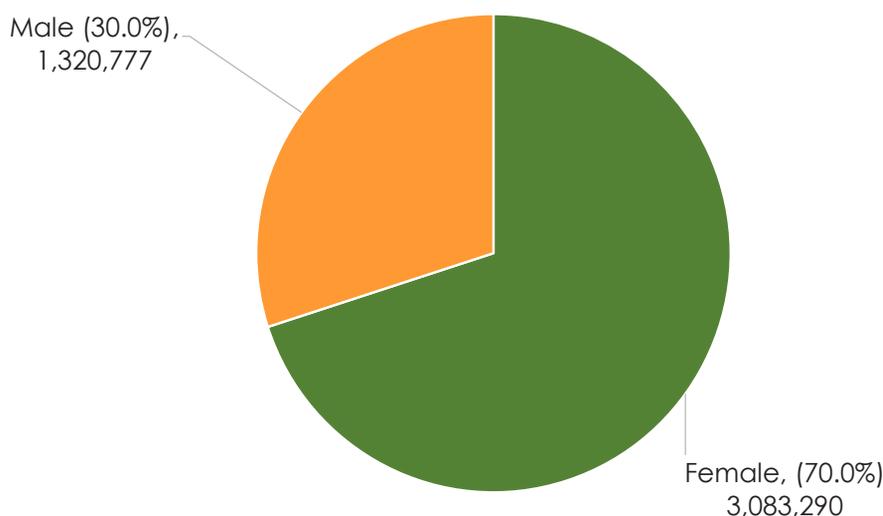
Of the 4,404,067 goats raised by households in the country, females constituted 70.0%

Table 5.19: Number and Sex of Goats Raised as at 30th April, 2022

Number and Sex of Goats Raised as at 30th April, 2022					
Province	Raised by Households	Female Goats		Male Goats	
	Number	Number	%	Number	%
Central	738,269	550,462	74.6	187,807	25.4
Copperbelt	200,337	116,869	58.3	83,468	41.7
Eastern	416,669	282,670	67.8	133,999	32.2
Luapula	178,159	124,291	69.8	53,868	30.2
Lusaka	204,401	136,701	66.9	67,700	33.1
Muchinga	193,632	136,923	70.7	56,709	29.3
Northern	245,008	167,648	68.4	77,360	31.6
North-western	175,910	123,475	70.2	52,435	29.8
Southern	1,924,288	1,359,430	70.6	564,858	29.4
Western	127,396	84,822	66.6	42,574	33.4
Zambia	4,404,067	3,083,290	70.0	1,320,777	30.0



Figure 5.22 Percentage Distribution of Sex of Goats



5.8.6 Number of Goats Owned by Households and Female Members of Households

. On average, the households owned 95.5 % of the total number of goats raised (4,404,067) as at 30th April 2022. Female members of the

households owned 1,483,078 representing 35.3% of the total goats owned by households (see Table 5.20).

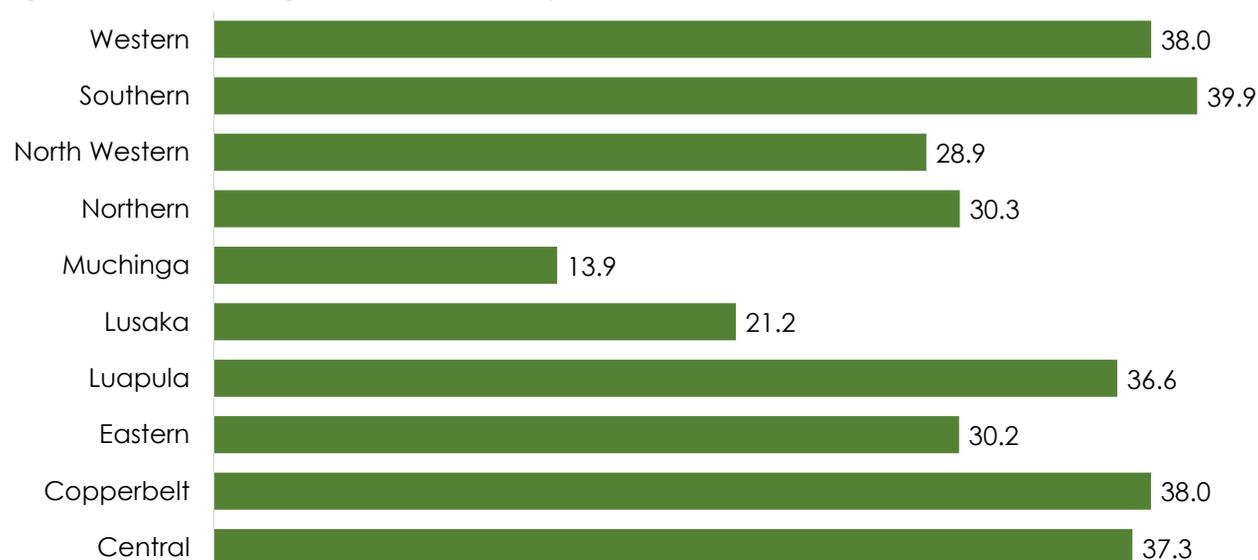
Table 5.20: Goats Ownership by Female Members of Households as at 30th April, 2022

Goat Ownership by Female Members of Households					
Province	Total Goats Raised by Households	Owned by Households		Owned by Females Household Members	
	Number	Number	%	Number	%
Central	738,269	711,019	96.3	264,947	37.3
Copperbelt	200,337	184,952	92.3	70,306	38.0
Eastern	416,669	399,849	96.0	120,864	30.2
Luapula	178,159	176,676	99.2	64,741	36.6
Lusaka	204,401	200,226	98.0	42,401	21.2
Muchinga	193,632	193,632	100.0	26,964	13.9
Northern	245,008	241,797	98.7	73,172	30.3
North-western	175,910	142,889	81.2	41,294	28.9
Southern	1,924,288	1,860,433	96.7	742,077	39.9
Western	127,396	95,511	75.0	36,312	38.0
Zambia	4,404,067	4,206,985	95.5	1,483,078	35.3

Southern Province recorded the highest share of goats owned by female members of the households at 39.9% of the total goats owned by households in the province (see Figure 5.23).

The lowest share of goats owned by female members of the households was recorded in Muchinga Province at 13.9 %.

Figure 5.23: Percentage of Goats Owned by Female Household Members



5.8.8 Number of Goat Slaughters by Households and Establishments

A total of 439,421 goat slaughters were recorded in the country from both households and establishments between 1st May 2021 and 30th April 2022 (see Table 5.21). Southern Province recorded the highest number of goat slaughters at 115,942 while Western Province

recorded the lowest at 12,024. At Household level, Southern Province recorded the highest share at 27.3% while Western Province reported the lowest at 3.0%. However, at establishment level Central Province recorded the highest at 40.2% and Western at less than 1%.

Table 5.21: Number of Goats Slaughters by Households and Establishments, 1st May, 2021 - 30th April, 2022 30th April, 2022)

Province	Number of Goat Slaughters by Province				
	Total	Households		Establishments	
	Number	Number	%	Number	%
Central	90,897	70,053	18.1	20,844	40.2
Copperbelt	35,078	27,992	7.2	7,086	13.7
Eastern	40,278	36,357	9.4	3,921	7.6
Luapula	35,848	34,484	8.9	1,364	2.6
Lusaka	25,480	23,859	6.2	1,621	3.1
Muchinga	20,816	19,324	5.0	1,492	2.9
Northern	38,865	38,285	9.9	580	1.1
North-western	24,192	19,759	5.1	4,433	8.6
Southern	115,942	105,931	27.3	10,011	19.3
Western	12,024	11,584	3.0	440	0.8
Zambia	439,421	387,628	100.0	51,793	100.0

5.8.12 Number and percentage of Goats bartered out or exchanged live in Households

A total of 913,900 goat slaughters were recorded in the country by the households between 1st May 2021 and 30th April 2022 (see Table 5.22). Southern Province recorded the

highest number of goat slaughters at 374,665 while Muchinga Province recorded the lowest at 22,490.



Table 22: Number and Percentage of Goats Bartered out or Exchanged Live by Households

Province	Households	
	Number	%
Central	203,769	22.3
Copperbelt	71,686	7.8
Eastern	48,893	5.3
Luapula	47,971	5.2
Lusaka	43,651	4.8
Muchinga	22,490	2.5
Northern	32,927	3.6
North-western	39,527	4.3
Southern	374,665	41.0
Western	28,322	3.1
Zambia	913,900	100.0

5.8.13 Number and Value of Sales of Live Goats in Establishments

Table 5.23 shows the number and percentage of goats sold live by households and establishments during the reference period 1st May, 2021 to 30th April, 2022.

A total of 922,774 sales of live goats were recorded in the country from both households and establishments. Southern Province recorded the highest number by both

households and establishments at 376,839 while Muchinga Province recorded the lowest at 22,684. At household level, Southern Province recorded the highest share at 41.0% while Muchinga reported the lowest at 2.5%. However, at establishment level, Central Province recorded the highest at 42.4% and Western at less than 1%.

Table 5.23: Number and Percentage of Sales of Live Goats by Households and Establishments, 1st May, 2021 - 30th April, 2022

Province	Number of Goat sold live by Province				
	Total	Households		Establishments	
		Number	Number	%	Number
Central	207,528	203,769	22.3	3,759	42.4
Copperbelt	72,501	71,686	7.8	815	9.2
Eastern	50,172	48,893	5.3	1,279	14.4
Luapula	48,102	47,971	5.2	131	1.5
Lusaka	43,755	43,651	4.8	104	1.2
Muchinga	22,684	22,490	2.5	194	2.2
Northern	33,013	32,927	3.6	86	1.0
North-western	39,822	39,527	4.3	295	3.3
Southern	376,839	374,665	41.0	2,174	24.5
Western	28,358	28,322	3.1	36	0.4
Zambia	922,774	913,901	100.0	8,873	100.0

5.9 Sheep Production

5.9.1 Opening and Closing Stock of Sheep for Households and Establishments

The number of Sheep raised by Province on 1st May, 2021 (Opening Stock) and the number of Sheep raised by Province on the 30th April, 2022 (Closing Stock) is shown in Table 5.44. The

sheep population decreased by 12,150 (from 272,709 to 260,560) during the reference period (Marketing Season), representing a -4.5% decrease in the population.

Table 5.24: Opening and Closing Stock of Sheep Raised by Households and Establishments by Province

Opening and Closing Stock of Sheep by Province				
Province	Total Sheep Raised		Population Change	
	1st May 2021	30th April 2022	Increase/Decrease	%
Central	50,727	54,542	3,815	7.5
Copperbelt	44,457	19,913	-24,544	-55.2
Eastern	16,163	16,331	168	1.0
Luapula	6,488	5,749	-739	-11.4
Lusaka	14,459	15,097	638	4.4
Muchinga	705	768	63	8.9
Northern	1,801	1,684	-118	-6.6
North-western	7,529	8,543	1,014	13.5
Southern	129,752	137,285	7,533	5.8
Western	627	647	20	3.2
Zambia	272,709	260,560	-12,150	-4.5

Changes in population of sheep by province are further illustrated in Figure 5.24. The Copperbelt Province reported the highest fall of 55.2%, followed by Luapula and Northern at 11.4% and 6.6%, respectively. Conversely, the

remaining Provinces reported increases with North-western recording the highest at 13.5%, followed by Muchinga and Central at 8.9% and 7.5%, respectively.

Figure 5.24: Percentage Change in the Opening and Closing Stock of Sheep for Households and Establishments

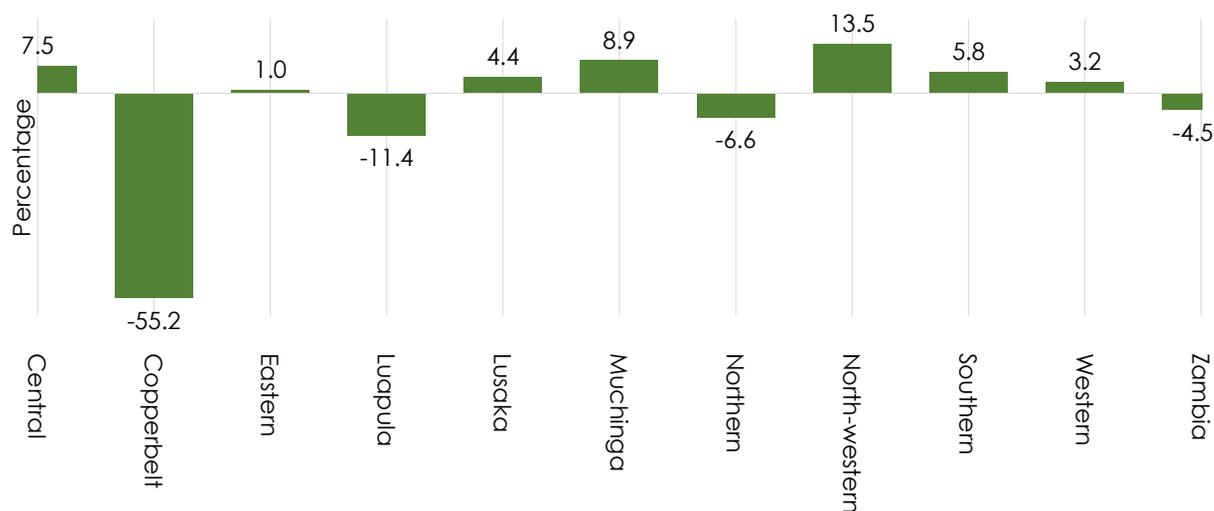


Table 5.25 show the number of sheep raised by households and establishments by province as at 30th April, 2022.

Of the 260,560 sheep in the country, 91% were raised by households while 9% were raised by establishments. Southern Province had the highest number of sheep raised in the country at 137,285.



Table 5.25: Number of Sheep Raised by Households and Establishments as at 30th April, 2022

Number of Sheep Raised by Households and Establishments					
Province	Households	Establishments		Total Sheep Raised	
	Number	%	Number	%	
Central	44,603	82	9,939	18	54,542
Copperbelt	17,102	86	2,811	14	19,913
Eastern	15,396	94	935	6	16,331
Luapula	5,523	96	226	4	5,749
Lusaka	13,896	92	1,201	8	15,097
Muchinga	-	-	768	100	768
Northern	1,622	96	62	4	1,684
North-western	7,610	89	933	11	8,543
Southern	130,452	95	6,833	5	137,285
Western	587	91	60	9	647
Zambia	236,791	91	23,769	9	260,560

5.9.3 Average Number of Sheep Raised Per Household and Establishment

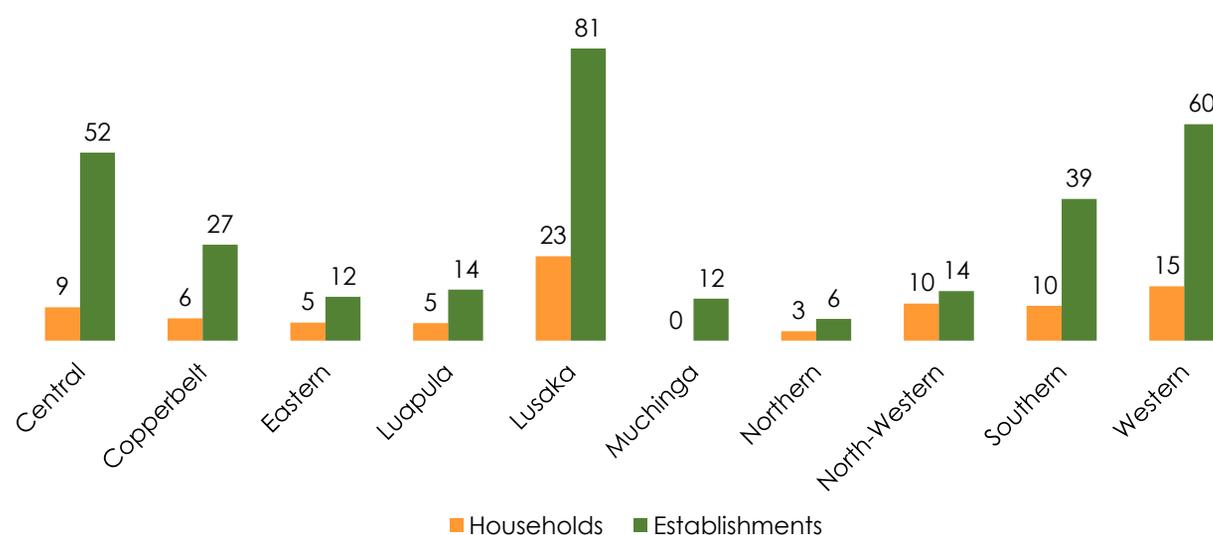
The average number of sheep raised by province as at 30th April, 2022 is shown in Table 5.26 and Figure 5.25. At national level the average number of sheep raised per household was 9.1. Lusaka Province recorded the highest average number of sheep raised per household at 23.4 and Muchinga Province did not record any sheep raised by household. In the sampled areas we selected, no farmer reported raising sheep at household Level.

At national level the average number of sheep raised per establishment was 33. Lusaka Province recorded the highest average number of sheep raised per establishment at 80. Western Province did not record any sheep raised by establishment.

Table 5.26: Average Number of Sheep Raised per Household and Establishment as at 30th April, 2022

Average Number of Sheep Raised per Household and Establishment						
Province	Sheep-raising		Number of Sheep Raised		Average Number of Sheep Raised	
	Households	Establishments	Households	Establishment	Households	Establishment.
Central	4,834	191	44,603	9,939	9.2	52
Copperbelt	2,766	106	17,102	2,811	6.2	26.5
Eastern	3,068	77	15,396	935	5	12.1
Luapula	1,144	16	5,523	226	4.8	14.1
Lusaka	594	15	13,896	1,201	23.4	80.1
Muchinga	0	66	0	768	0	11.6
Northern	620	10	1,622	62	2.6	6.2
North-western	740	68	7,610	933	10.3	13.7
Southern	13,488	174	130,452	6,833	9.7	39.3
Western	39	-	587	60	15.1	-
Zambia	26,149	722	236,791	23,769	9.1	33

Figure 5.25: Average Number of Sheep Raised per Household and Establishment



5.9.4 Sheep-raising Households by Size of Herd Raised

Table 5.27 and Figure 5.26 show that 50.7% of household had a herd-size between 1 and 5 followed by those with 6 to 10 at 18%. Only 0.1%

of them sheep raising households had a herd-size between 101 and 150 sheep.

Table 5.27: Percentage of Sheep Raising Households by Size of Herd Raised as at 30th April, 2022

Province	Size of Herd Raised									Total %	Sheep-raising Households
	01-5	06-10	11-15	16-20	21-30	31-40	41-50	51-100	101-150		
Central	54.6	22.7	13.4	3.2	2.3	2.7	0	0	1.1	100	4,834
Copperbelt	72.1	12.3	1.6	11.1	3	0	0	0	0	100	2,698
Eastern	71.5	19.9	6.6	0	2	0	0	0	0	100	3,067
Luapula	70.5	20.5	9	0	0	0	0	0	0	100	1,144
Lusaka	24.7	27.6	15.3	0	8.7	6.7	3	13.9	0	100	595
Muchinga											
Northern	82.8	17.2	0	0	0	0	0	0	0	100	529
North-western	25.3	25.9	0	48.8	0	0	0	0	0	100	740
Southern	55.2	15.9	12.3	3	10.2	0.9	1.6	1	0	100	13,133
Western	0	0	100	0	0	0	0	0	0	100	39
Zambia	50.7	18	17.6	7.3	2.9	1.1	0.5	1.7	0.1	100	26,779



Figure 5.26: Percentage of Sheep Raising Households by Size of Herd Raised

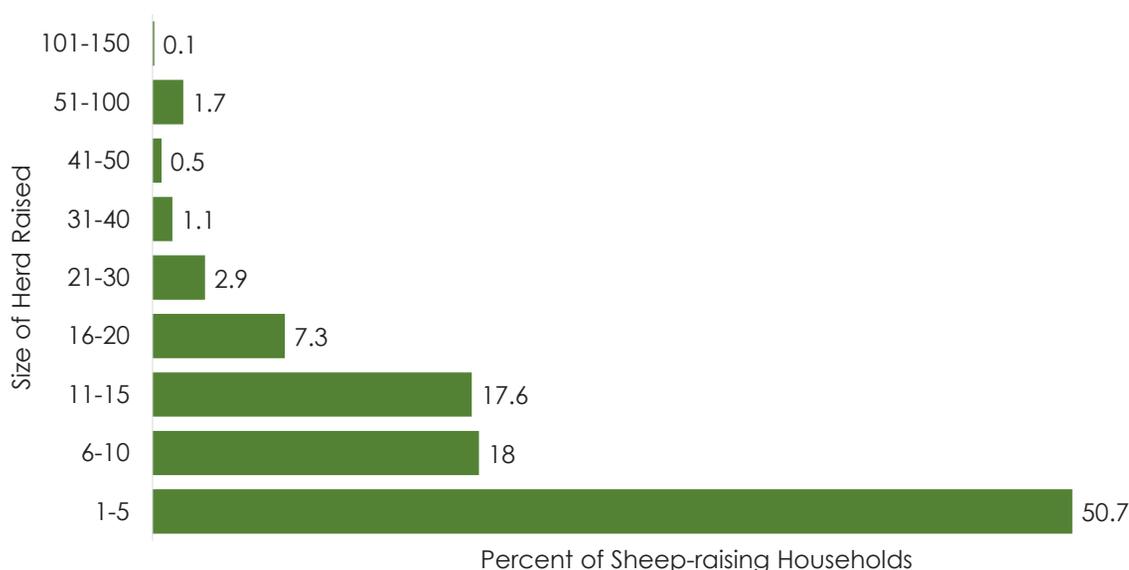


Table 5.28 and Figure 5.27 shows that as female sheep accounted for the highest percentage at 72.0% compared to male sheep at 28.0%.

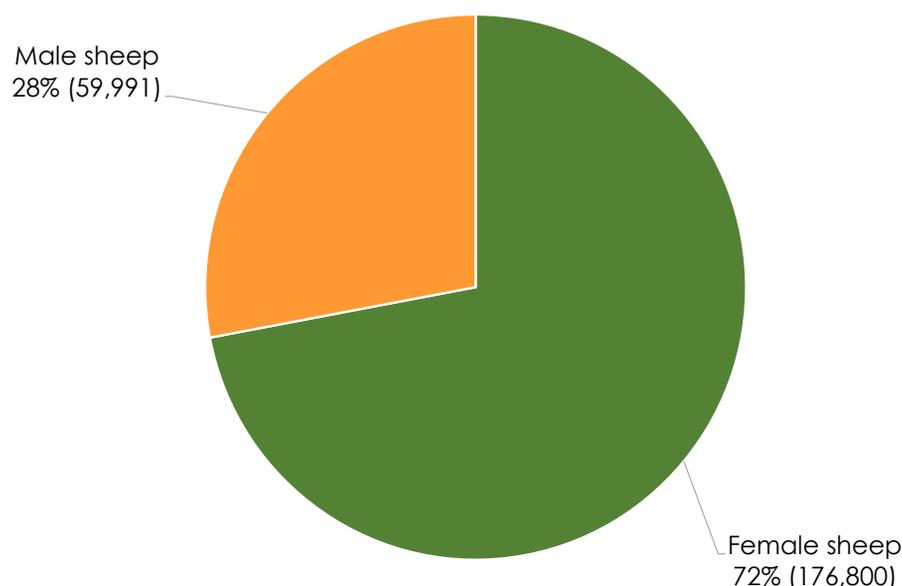
5.9.5 Number of Sheep by Sex in Households

Table 5.28 show the percentage distribution of sheep by sex raised by households as at 30th April, 2022. Female sheep accounted for the highest percentage (72.0%) compared to male sheep at 28.0%.

Table 5.28: Number of Sheep by Sex in Households as at 30th April, 2022

Province	Total Sheep	Female Sheep		Male Sheep	
		Number	%	Number	%
Central	44,603	31,041	69.6	13,563	30.4
Copperbelt	17,102	9,446	55.2	7,656	44.8
Eastern	15,396	10,658	69.2	4,739	30.8
Luapula	5,523	3,885	70.3	1,638	29.7
Lusaka	13,896	10,711	77.1	3,184	22.9
Muchinga	-	-	-	-	-
Northern	1,622	1,266	78.1	356	21.9
North-Western	7,610	6,325	83.1	1,286	16.9
Southern	130,452	103,077	79.0	27,375	21.0
Western	587	391	66.7	196	33.3
Zambia	236,791	176,800	72.0	59,991	28.0

Figure 5.27: Percentage Distribution of Sheep by Sex



5.8.6 Number of Sheep Owned by Households and Female Members of Households

Table 5.29 shows the number of sheep raised and owned by households, as well as those owned by female members of households by province as at 30th April, 2022. On average, the households owned 90.0% of the total number

of sheep raised estimated at 236,791. Female members of the households owned 38,416 representing 18.1% of the total sheep owned by households.

Table 5.29: Sheep Ownership by Female Members of Households as at 30th April, 2022

Sheep Ownership by Female Members of Households					
Province	Total Sheep				
	Raised by Households	Owned by Households		Owned by Females Household Members	
	Number	Number	%	Number	%
Central	44,603	36,540	82	7,014	19.2
Copperbelt	17,102	13,821	81	2,386	17.3
Eastern	15,396	15,227	99	5,464	35.9
Luapula	5,523	5,523	100	1,794	32.5
Lusaka	13,896	13,054	94	384	3
Muchinga	-	-	-	-	-
Northern	1,622	1,622	100	1,539	95
North-western	7,610	1,047	14	86	8.2
Southern	130,452	125,117	96	19,162	15.3
Western	587	587	100	587	100
Zambia	236,791	212,538	90	38,416	18.1

Figure 5.28 show that Western Province recorded the largest percentage of sheep owned by female members of the households at 100.0% of the total number of sheep owned

by households in the province. The lowest share of sheep owned by female members of the households was recorded in Lusaka Province at 3.0 %.



Figure 5.28: Percentage of Sheep Owned by Female Household Members

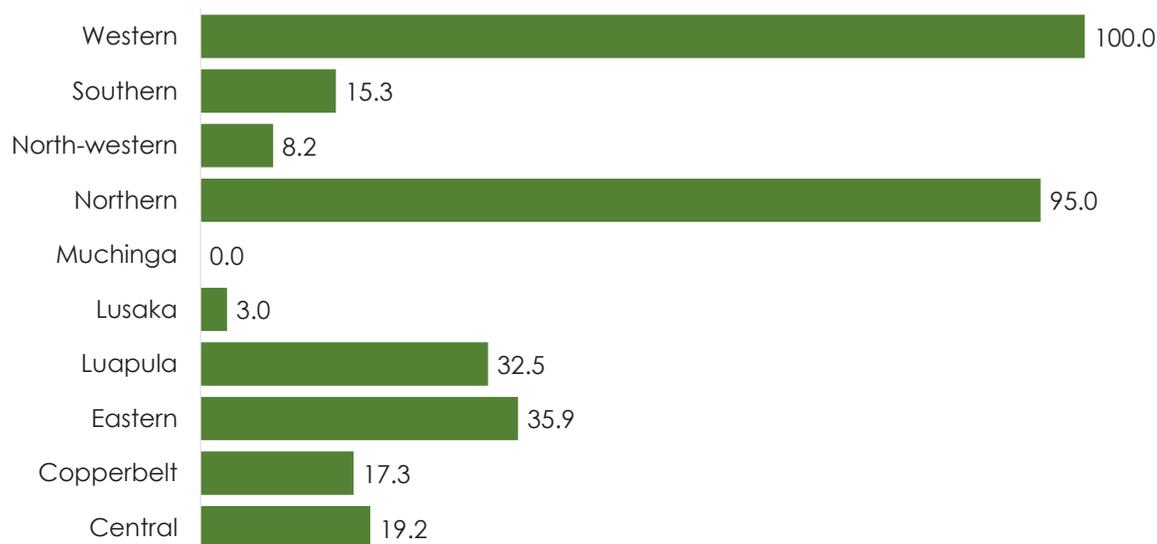


Table 5.30: Sheep Ownership by Female Members of Households as at 30th April, 2022

Province	Number of Sheep Slaughters in Households			Number of Sheep Slaughters in Establishments		
	Sheep Raised by Households	Sheep Slaughtered		Sheep Raised by Establishments	Sheep Slaughtered	
		Number	%		Number	%
Central	44,603	2,594	13.7	9,939	267	31.7
Copperbelt	17,102	8,149	43.1	2,811	296	35.2
Eastern	15,396	1,902	10.1	935	36	4.3
Luapula	5,523	1,219	6.4	226	-	0.0
Lusaka	13,896	467	2.5	1,201	-	0.0
Muchinga	-	-	0.0	768	51	6.1
Northern	1,622	82	0.4	62	1	0.1
North-western	7,610	474	2.5	933	14	1.7
Southern	130,452	4,018	21.3	6,833	176	21.0
Western	587	-	0.0	60	-	0.0
Zambia	236,791	18,905	100.0	23,769	841	100.0

5.10 Pig Production

5.10.1 Population of Pigs for Households and Establishments

The number of pigs raised by province on 1st May, 2021 (Opening Stock) and the number of pigs raised by province on 30th April, 2022 (Closing Stock) are shown in Table 5.52. At national level, the population of pigs decreased by 0.7%.

Southern Province recorded the highest increase in the number of pigs raised (39,910) followed by Central Province (15,664) while Lusaka Province recorded the largest decrease in the number of pigs raised at 30,370 (See Table 5.31).

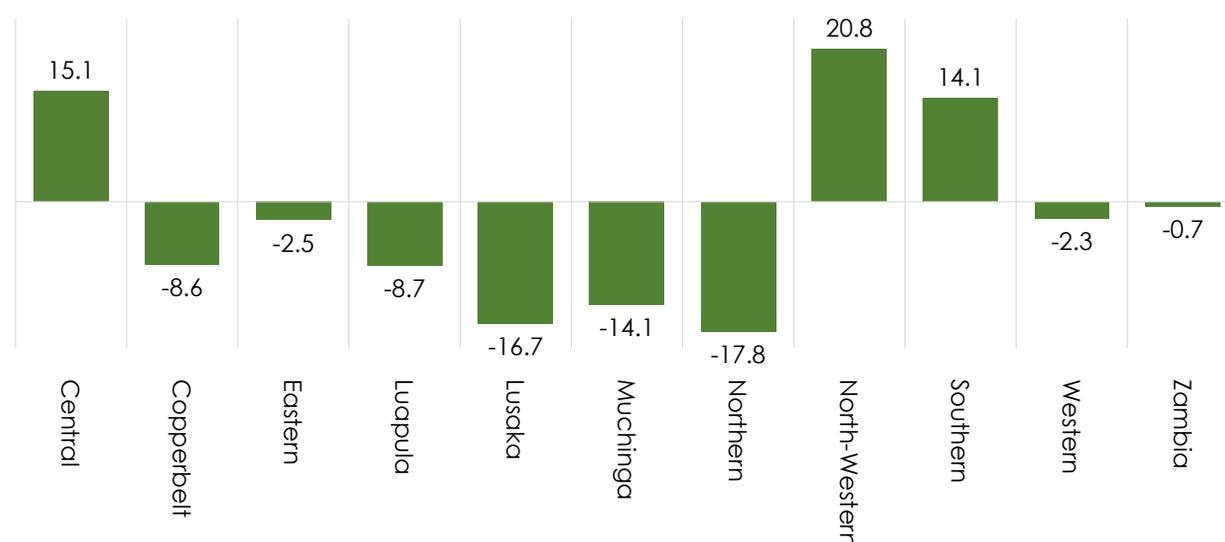
Table 5.31: Opening and Closing Stock of Pigs Raised

Province	Number of Pigs raised (1st may 2021)	Number of Pigs raised (30th April 2022)	Population change	
			Increase/ decrease	Percent
Central	103,428	119,093	15,664	15.1
Copperbelt	110,036	100,612	-9,424	-8.6
Eastern	197,351	192,464	-4,887	-2.5
Luapula	19,065	17,406	-1,659	-8.7
Lusaka	182,357	151,986	-30,370	-16.7
Muchinga	61,706	53,027	-8,680	-14.1
Northern	100,701	82,820	-17,881	-17.8
North-Western	52,778	63,745	10,966	20.8
Southern	283,339	323,249	39,910	14.1
Western	57,762	56,440	-1,322	-2.3
Zambia	1,168,524	1,160,842	-7,682	-0.7

Figure 5.29 shows the percentage change in the opening and closing stock of Pigs by province. Northern Province reported the largest population decrease of 17.8%,

followed by Lusaka and Muchinga at 16.7% and 14.1%, respectively. Conversely, Central, North-western and Southern Provinces reported increases of 15.1%, 20.8% and 14.1%, respectively..

Fig 5.29: Percentage change in the Opening and Closing Stock of Pigs for Households and Establishments





5.10.2 Number of Pigs Raised by Households and Establishments

Table 5.32 show the number of pigs raised by households and establishments by province on 30th April, 2022. Of the 1,160,842 pigs in the country, 96.8% were raised by households while 3.2% were raised by establishments.

Table 5.32: Number of Pigs Raised by Household and Establishment on 30th April, 2022

Number of Pigs Raised by Households and Establishments					
Province	Households		Establishments		Total Pigs Raised
	Number	%	Number	%	
Central	109,316	91.8	9,776	8.2	119,092
Copperbelt	89,506	89.0	11,106	11.0	100,612
Eastern	190,149	98.8	2,315	1.2	192,464
Luapula	16,997	97.7	409	2.3	17,406
Lusaka	141,963	93.4	10,024	6.6	151,987
Muchinga	52,031	98.1	996	1.9	53,027
Northern	81,977	99.0	844	1.0	82,821
North-western	63,194	99.1	551	0.9	63,745
Southern	322,005	99.6	1,244	0.4	323,249
Western	56,162	99.5	278	0.5	56,440
Zambia	1,123,300	96.8	37,542	3.2	1,160,842

5.10.3 Average Number of Pigs Raised per Household and Establishment

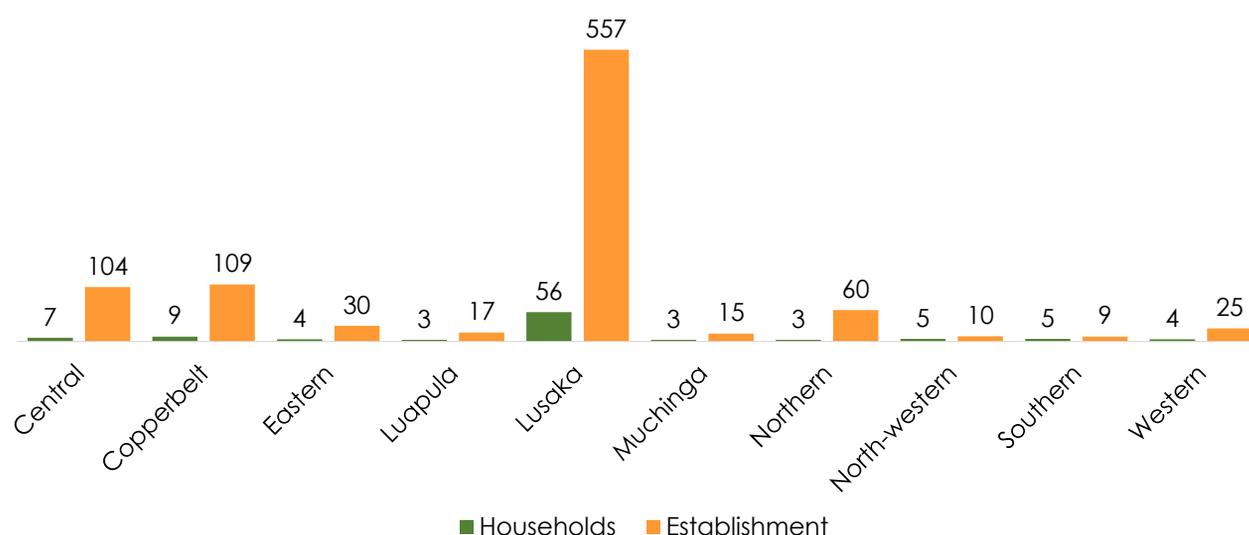
The average number of pigs raised by province as at 30th April, 2022 is shown in Table 5.33 and Figure 5.30. At national level the average number of pigs raised per household was 5. Lusaka Province recorded the highest number per household at 56 while Luapula, Muchinga and Northern Provinces recorded the lowest average number per household at 3 each.

At national level the average number of pigs raised per establishment was 63. Lusaka Province recorded the highest number per establishment at 557 and Southern Province recorded the lowest per establishment at 5.0.

Table 5.33: Average Number of Pigs Raised Per Household and Establishment as at 30th April, 2022

Average Number of Pigs Raised per Household and Establishment						
Province	Pig-raising		Number of Pigs Raised		Average Number of Pigs Raised	
	Households	Establishment	Households	Establishment	Households	Establishment
Central	16,492	94	109,316	9,776	7	104
Copperbelt	10,430	102	89,506	11,106	9	109
Eastern	46,377	78	190,149	2,315	4	30
Luapula	6,792	24	16,997	409	3	17
Lusaka	2,526	18	141,963	10,024	56	557
Muchinga	19,964	66	52,031	996	3	15
Northern	29,530	14	81,977	844	3	60
North-western	11,976	58	63,194	551	5	10
Southern	69,392	131	322,005	1,244	5	9
Western	13,379	11	56,162	278	4	25
Zambia	226,858	597	1,123,300	37,542	5	63

Figure 5.30: Average Number of Pig Raised Per Household and Establishment



5.10.4 Percentage of Pig-raising Households by Size of Herd Raised

Table 5.34 show that as at 30th April 2022, 75.5% of the 218,604 pig-raising households raised 1 to 5 pigs and 16.6% of the pig-raising households raised 6 to 10 pigs. Pig-raising households with over 20 pigs accounted

for 2.7% of the pig-raising households. A large percentage (97.9%) of the pig-raising households in Luapula Province raised 1 to 5 pigs while Lusaka Province had the least at 45.1% of households.

Table 5.34: Percentage of Pig Raising Households by Size of Herd Raised on 30th April, 2022

Province	Size of Herd Raised										Total Percent	Pig-raising Households
	1 to 5	6 to 10	11 to 15	16 to 20	21 to 30	31 to 40	41 to 50	51 to 100	101 to 150	150+		
Central	72.7	17.7	4.0	0.7	2.6	0.5	1.2	0.2	0.0	0.5	100.0	16,417
Copperbelt	47.9	26.9	1.9	4.1	16.4	1.4	0.7	0.6	0.0	0.0	100.0	9,129
Eastern	72.2	24.1	2.4	0.8	0.6	0.0	0.0	0.0	0.0	0.0	100.0	45,333
Luapula	97.9	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	100.0	6,214
Lusaka	45.1	4.7	4.8	1.7	24.1	4.3	2.0	1.5	3.3	8.5	100.0	2,500
Muchinga	87.3	10.0	2.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	100.0	18,268
Northern	89.5	8.3	1.3	0.5	0.4	0.0	0.0	0.0	0.0	0.0	100.0	27,027
North-Western	62.0	29.6	5.6	1.4	1.4	0.0	0.0	0.0	0.0	0.0	100.0	11,975
Southern	73.8	15.6	6.9	1.5	1.7	0.2	0.1	0.2	0.0	0.0	100.0	68,362
Western	80.8	12.4	2.4	4.0	0.4	0.0	0.0	0.0	0.0	0.0	100.0	13,379
Total	75.5	16.6	3.9	1.3	2.0	0.2	0.2	0.1	0.0	0.1	100.0	218,604



5.10.5 Number of Pigs Raised by Sex in Households

Table 5.35 show the number of pigs raised by households in the country by sex as at 30th April, 2022. The female pigs were the majority raised at 62.7% share of the total national

population. Lusaka Province recorded the highest percentage of female pigs at 73.7% while Luapula Province recorded the lowest percentage of the female pigs at 55.7%.

Table 5.35: Number and Percentage of Pigs Raised in households by Sex and Province

Number and Percentage of Pigs Raised by Sex and Province					
Province	Total Pigs	Female Pig		Male Pig	
		Number	%	Number	%
Central	109,316	70,877	64.8	38,439	35.2
Copperbelt	89,506	57,046	63.7	32,460	36.3
Eastern	190,149	108,262	56.9	81,887	43.1
Luapula	16,997	9,469	55.7	7,528	44.3
Lusaka	141,963	104,677	73.7	37,286	26.3
Muchinga	52,031	35,797	68.8	16,234	31.2
Northern	81,977	50,829	62.0	31,148	38.0
North-western	63,194	42,824	67.8	20,370	32.2
Southern	322,005	191,089	59.3	130,916	40.7
Western	56,162	33,136	59.0	23,026	41.0
Zambia	1,123,300	704,005	62.7	419,295	37.3

5.10.6 Number of Pigs Owned by Households and Female Members of Households

Table 5.36 shows the number of pigs owned by households and those owned by female members of households by province as at 30th April, 2022. On average, the households owned

94.5 % of the total 1,123,300 pigs. Female members of the households owned 329,299 pigs representing 29.3% of the total pigs owned by households.

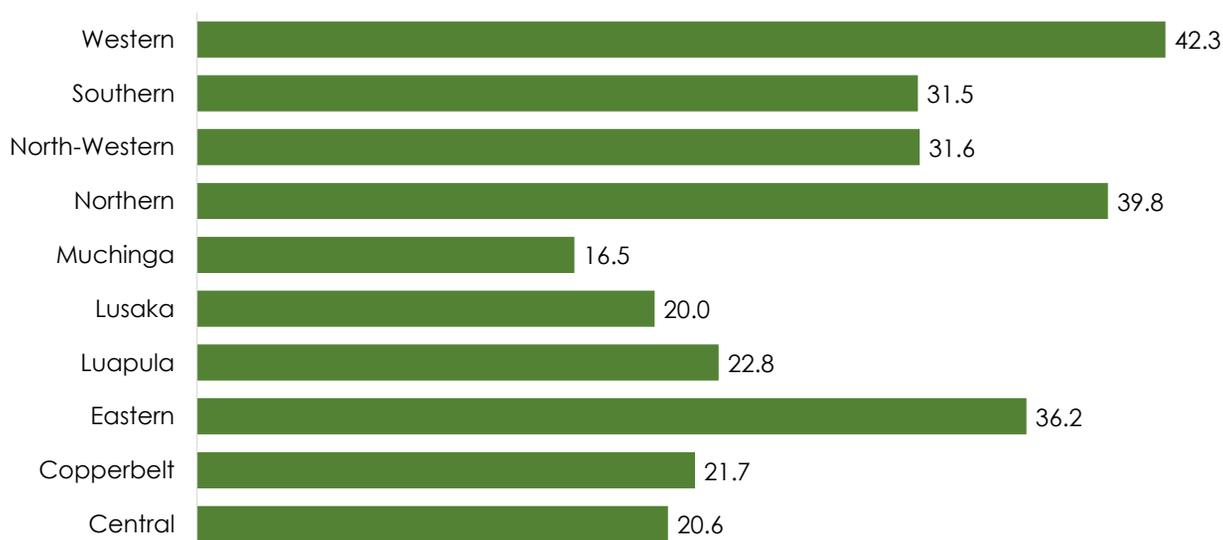
Table 5.36: Number and Percentage of Pigs Owned by Female members of the Households by Province

Province	Total Pigs				
	Raised by Households	Owned by Households		Owned by Females Household Members	
		Number	Number	%	Number
Central	109,316	86,060	78.7	22,484	20.6
Copperbelt	89,506	87,330	97.6	19,464	21.7
Eastern	190,149	185,769	97.7	68,875	36.2
Luapula	16,997	16,453	96.8	3,872	22.8
Lusaka	141,963	133,112	93.8	28,362	20.0
Muchinga	52,031	52,031	100.0	8,575	16.5
Northern	81,977	81,642	99.6	32,611	39.8
North-western	63,194	58,518	92.6	19,943	31.6
Southern	322,005	313,148	97.2	101,363	31.5
Western	56,162	47,701	84.9	23,751	42.3
Zambia	1,123,300	1,061,765	94.5	329,299	29.3

Figure 5.31 show that Western Province recorded the highest share of pigs owned by female members of the households at 42.3% of the total number of pigs owned by households

in the Province. The lowest share pigs owned by female members of the households was recorded in Muchinga Province at 16.5%.

Figure 5.31: Percentage of Pigs Owned by Female Household Members



5.10.7 Number of Pig Slaughters in Households

Table 5.37 and Figure 5.32 show the number and percentage of pig slaughters among pig-raising households between 1st May, 2021 and 30th

April, 2022. A total of 123,814 pig slaughters were recorded in the country. Lusaka Province recorded the highest number of pig slaughters at 27,654 while Western Province recorded the lowest at 3,747.

Table 5.37: Number of Pigs Slaughtered in Households (1st May, 2021 – 30th April, 2022)

Province	Number of Pig Slaughters in Households		
	Pigs Raised by Households	Pigs Slaughtered	
		Number	Percent
Central	109,316	11,156	10.2
Copperbelt	89,506	15,109	16.9
Eastern	190,149	22,611	11.9
Luapula	16,997	3,944	23.2
Lusaka	141,963	27,654	19.5
Muchinga	52,031	8,568	16.5
Northern	81,977	18,747	22.9
North-western	63,194	6,625	10.5
Southern	322,005	5,652	1.8
Western	56,162	3,747	6.7
Zambia	1,123,300	123,814	11.0



Luapula Province recorded the largest percentage of pig-slaughters of the total provincial number of pigs raised at 23.2%.

Southern Province recorded the lowest percentage of pig-slaughters at 1.8%.

Figure 5.32: Percentage of Pig Slaughters in Households



5.10.8 Number of Sales of Live Pigs in Households

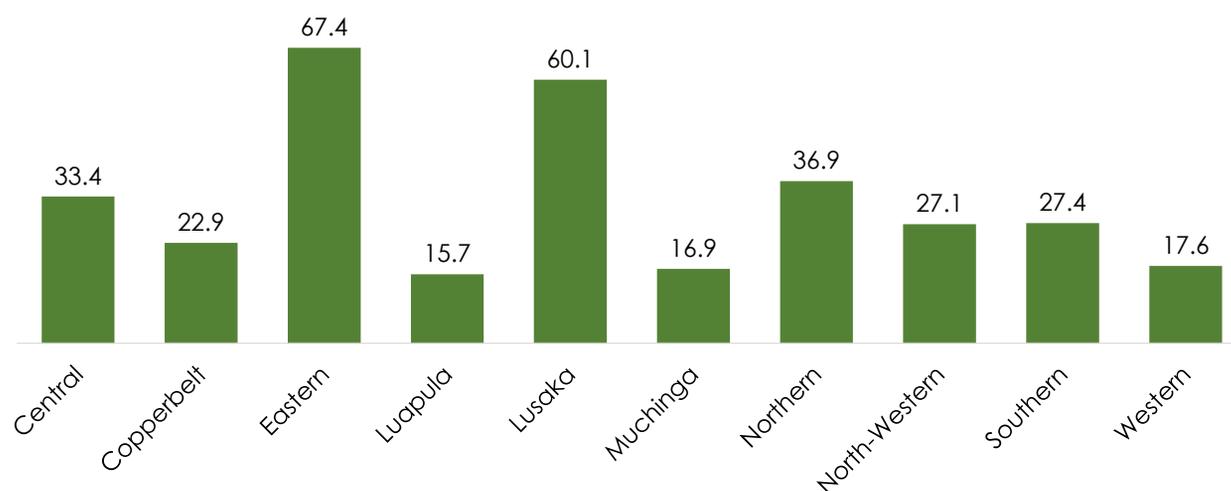
At national level, a total of 427,316 pigs were bartered out or exchanged live. Eastern Province accounted for the highest number of pigs bartered out or exchanged live at 128,084 while Luapula Province accounted for the lowest

number at 2,668. Eastern Province recorded the highest percentage of Pigs bartered out or exchanged live at 67.4% and Luapula Province was the lowest at 15.7% (See Table 5.38 and Figure 5.33).

Table 5.38: Number Pigs bartered out/ Exchanged Live by Households, 1st May, 2021 – 30th April, 2022

Province	Number of Pigs bartered out/exchanged live in Households		
	Total Pigs Raised	Pigs bartered out/ exchanged live	
	Number	Number	Percent
Central	109,316	36,564	33.4
Copperbelt	89,506	20,480	22.9
Eastern	190,149	128,084	67.4
Luapula	16,997	2,668	15.7
Lusaka	141,963	85,311	60.1
Muchinga	52,031	8,814	16.9
Northern	81,977	30,271	36.9
North-western	63,194	17,141	27.1
Southern	322,005	88,102	27.4
Western	56,162	9,880	17.6
Zambia	1,123,300	427,316	38.0

Figure 5.33: Number of Pigs bartered out/ Exchanged live in Households by Province



5.10.9 Number of Pigs Battered out or Exchanged in Households

Of the 1,123,300 pigs raised by households in the country, 38% were exchanged or bartered out. Eastern Province was the highest at 67.4%

followed by Lusaka at 60.1%, while Luapula was lowest at 15.7% (See Table 5.39).

Table 5.39: Number and Percentage Value of Sales of Live Pigs in Establishments, 1st May, 2021 - 30th April, 2022

Province	Number of Pig Slaughtering in Establishments		
	Pigs Raised by Establishments	Pigs Slaughtered	
		Number	Percent
Central	109,316	36564	33.4
Copperbelt	89,506	20480	22.9
Eastern	190,149	128084	67.4
Luapula	16,997	2668	15.7
Lusaka	141,963	85311	60.1
Muchinga	52,031	8814	16.9
Northern	81,977	30271	36.9
North-western	63,194	17141	27.1
Southern	322,005	88102	27.4
Western	56,162	9880	17.6
Zambia	1,123,300	427,316	38.0

5.11 Other Animal Species

This section covers other animal species such as donkeys, cats and dogs and the number raised by households and establishments.

5.11.1 Dog Raising

The dog population from both household and establishment was 915,164. Southern Province reported for the highest number at 300,086 of the total national dog population, followed by Central Province at 164,369. Luapula Province accounted for the lowest at 22,046 of the total national dog population (See Table 5.40).



Table 5.40: Number of Households Raising Dogs and Number of Dogs Raised by Province as at 30th April, 2022

Province	Dogs Raised				Total Number
	Households		Establishments		
	No. of Households	Number of Dogs raised	No of Establishments	Number of Dogs	
Central	75,875	163,141	338	1,228	164,369
Copperbelt	32,111	53,666	158	399	54,065
Eastern	43,978	93,083	67	270	93,353
Luapula	14,856	21,963	43	83	22,046
Lusaka	42,836	78,935	25	63	78,997
Muchinga	25,961	41,419	89	86	41,505
Northern	28,093	46,893	7	26	46,919
North-Western	19,785	34,859	87	213	35,072
Southern	154,038	299,126	213	960	300,086
Western	45,244	78,752			78,752
Total	482,777	911,836	1,027	3,328	915,164

5.11.2 Cat Raising

The cat population from both households and establishment was 300,052. Southern Province recorded the highest number at 146,774 of

the total national cat population, followed by Central Province at 34,100. North-Western Province accounted for the lowest at 6,980 cats (see Table 5.41).

Table 5.41: Number of Households Raising Cats and Number of Cats Raised by Province as at 30th April, 2022

Province	Cats Raised				Total Number
	Households		Establishments		
	No. of Households	Number of Cats raised	No of Establishments	Number of Cats	
Central	25,404	33,595	224	506	34,100
Copperbelt	12,234	15,144	117	116	15,260
Eastern	12,913	18,318	31	49	18,367
Luapula	5,359	8,286	11	47	8,333
Lusaka	10,416	24,735	12	87	24,823
Muchinga	7,124	8,270	97	24	8,294
Northern	6,426	8,893	4	13	8,906
North-Western	5,546	6,953	83	27	6,980
Southern	114,510	146,391	150	382	146,774
Western	21,866	28,216			28,216
Total	221,796	298,801	729	1,251	300,052



**CHAPTER 6:
POULTRY PRODUCTION**



Chapter 6: Poultry Production

6.0 Number of Various Types of Poultry Raised by Households

Of the total number of poultry raised by households, village chickens (free range) accounted for the largest number at 21,023,285

followed by broiler chicken 4,743,192 and the lowest were the Geese at 3,859 (See Table 6.1).

Table 6.1: Number of Poultry Raised as at 30th April 2022

Poultry Species	Number
Village Chickens	21,023,285
Broiler Chickens	4,743,192
Layer Chickens	2,244,070
Ducks	1,225,118
Geese	3,859
Guinea fowls	1,167,159
Turkey	77,972
Quails	101,369

6.2 Number of Various Types of Chickens Raised by Households

At national level, the village chicken raising households recorded the highest number at 1,597,215 followed by broilers at 35,773 and layers at 15,354 (see Table 6.2).

Broiler raising households recorded highest percentage in Lusaka at 26.9% followed by Eastern at 16.2% and the lowest share was accounted for by Western Province at 1.9%.

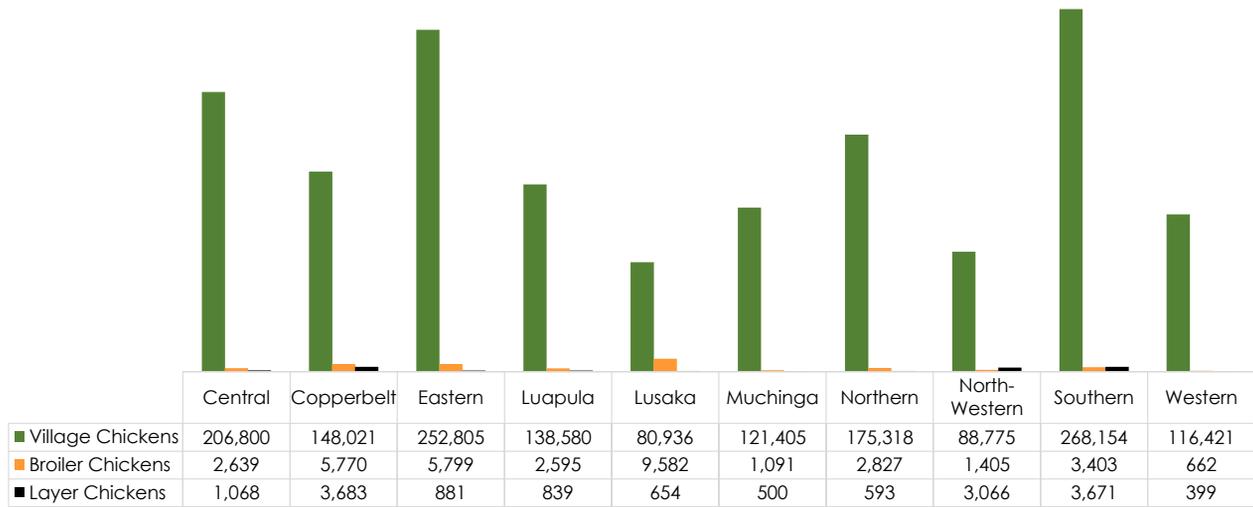
Among provinces, Southern accounted for the largest percentage at 16.8% of village chickens followed by Eastern with 15.8% and Lusaka recorded the lowest share at 5.1% (see Figure 6.1).

Layer raising households recorded the highest percentage on the Copperbelt at 23.9% followed by 23.9% and Western reported the lowest percentage of 2.6%.

Table 6.2: Number of households Raising Chickens by Province, as at 30th April 2022

PROVINCE	Village Chickens		Broiler Chickens		Layer Chickens	
	Number	%	Number	%	Number	%
Central	206,800	12.9	2,639	7.4	1,068	6.96
Copperbelt	148,021	9.3	5,770	16.1	3,683	23.99
Eastern	252,805	15.8	5,799	16.2	881	5.74
Luapula	138,580	8.7	2,595	7.3	839	5.46
Lusaka	80,936	5.1	9,582	26.8	654	4.26
Muchinga	121,405	7.6	1,091	3.0	500	3.26
Northern	175,318	11.0	2,827	7.9	593	3.86
North-Western	88,775	5.6	1,405	3.9	3,066	19.97
Southern	268,154	16.8	3,403	9.5	3,671	23.91
Western	116,421	7.3	662	1.9	399	2.60
Zambia	1,597,215	100.0	35,773	100.0	15,354	100.0

Figure 6.1: Number of Chickens Raising Households by Province

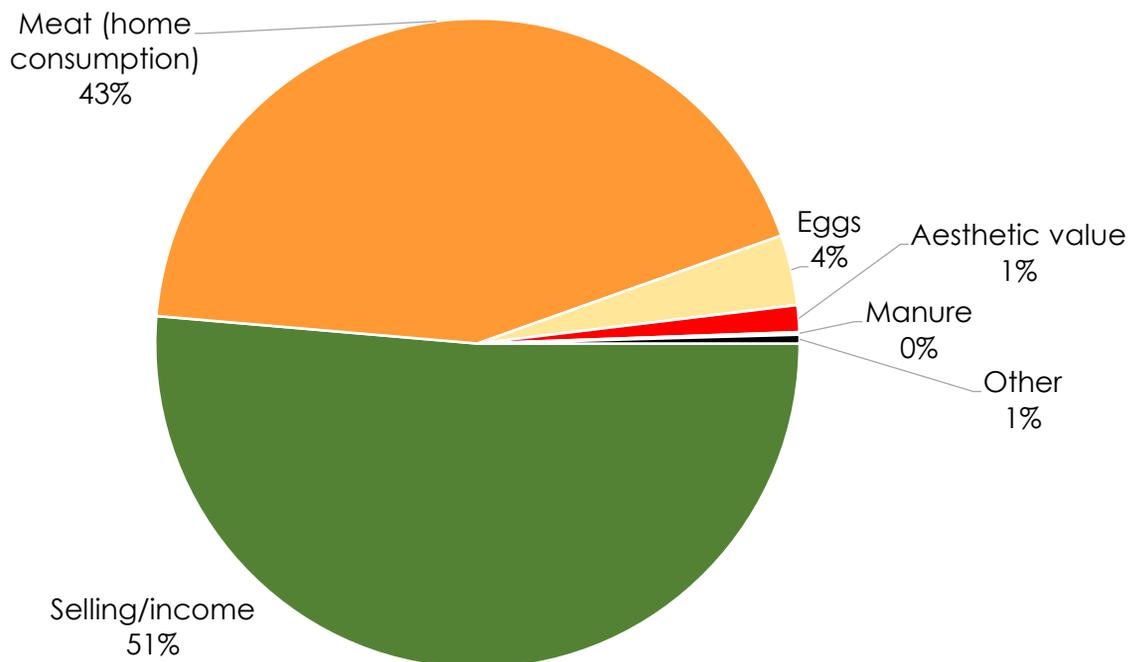


6.3 Purpose of Raising Poultry

The main purpose of raising poultry was income generation (51%) and the second most

important was home consumption as meat (43%) and the least was aesthetic value at 1% (See Figure 6.2)

Figure 6.2: Purpose of Raising Poultry



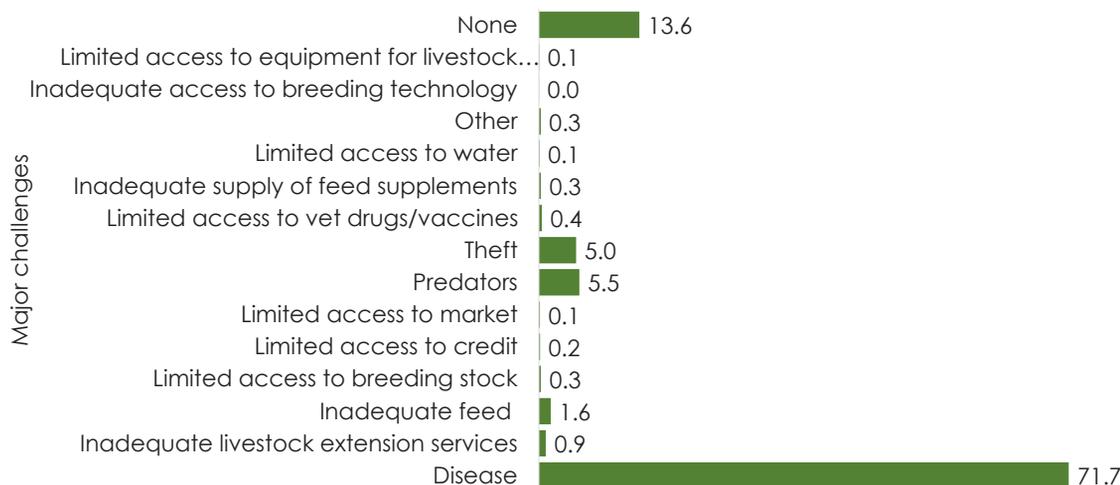


6.4 Major Constraints Affecting Poultry Production

According to the survey findings as shown in Figure 6.3, disease was the major challenge faced by poultry-raising households at 71.7%. Other constraints were limited access to

markets and breeding stock, predators (5.5%) and theft (5.0%). However, 13.6% households reported not having any challenges.

Figure 6.3: Percentage of Village Chicken Raising Households Reporting a Major Constraint Faced

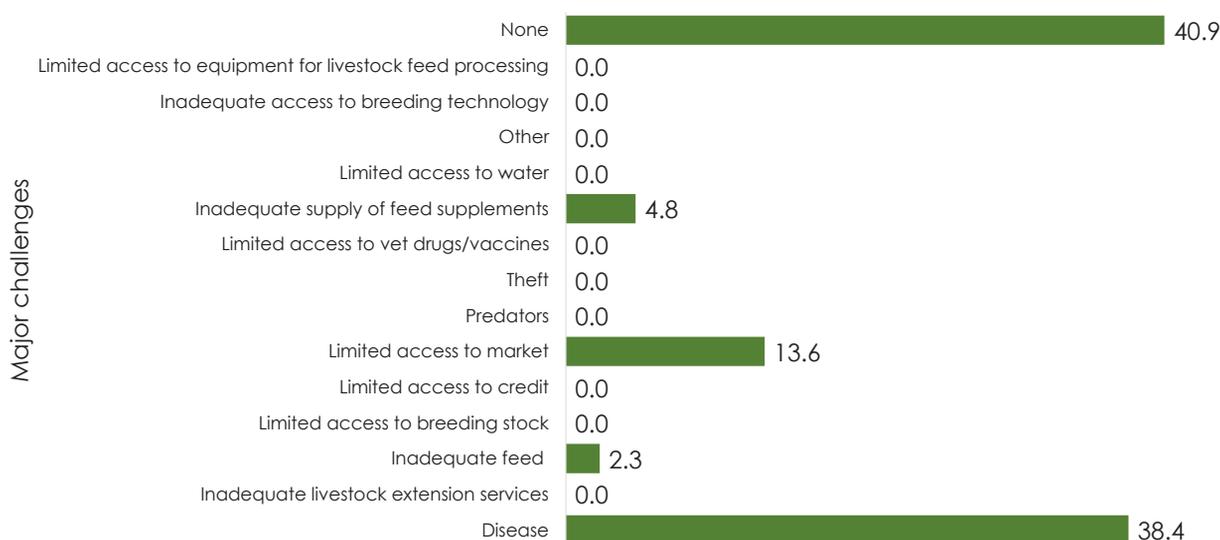


6.4.1 Major Constraints Affecting Broiler Chicken Production, as at 30th April 2022

Figure 6.4 shows that 38.4% of the broiler chicken raising households in the country reported disease as a major constraint faced,

followed by limited access to market and inadequate supply of feed supplement at 13.6% and 4.8%, respectively.

Figure 6.4: Percentage of Broiler Chicken Raising Household Reporting a Major Constraint Faced

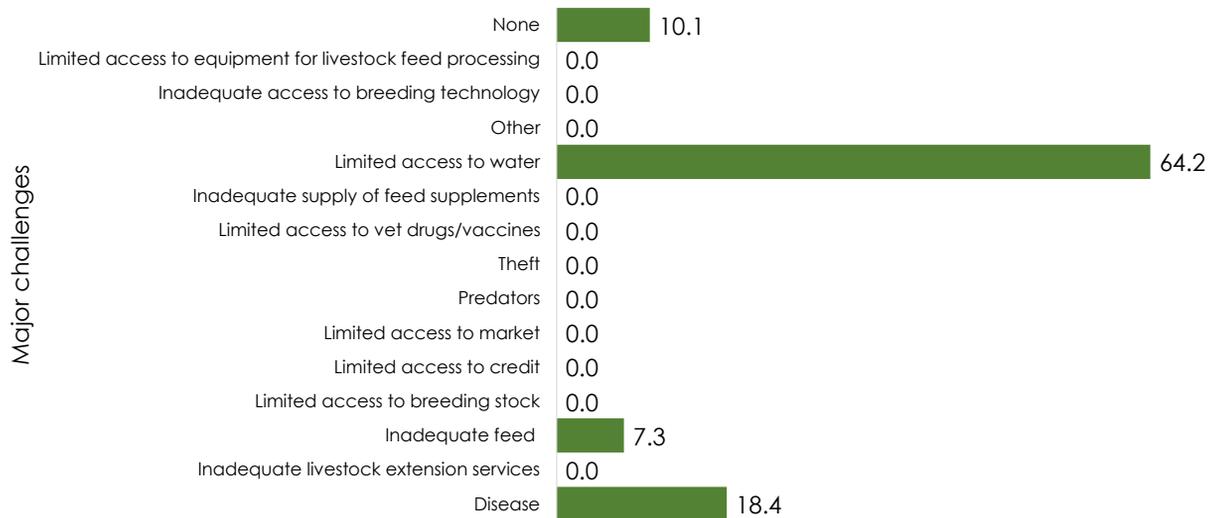


6.4.2 Major Constraints Affecting Layer Production

Figure 6.5 shows that 64.2% of the layer chicken raising households in the country reported limited access to water as a major constraint

faced, followed by diseases and inadequate feed at 18.4% and 7.3%, respectively.

Figure 6.5: Percentage of Layer Chicken Raising Household Reporting a Major Constraint Faced

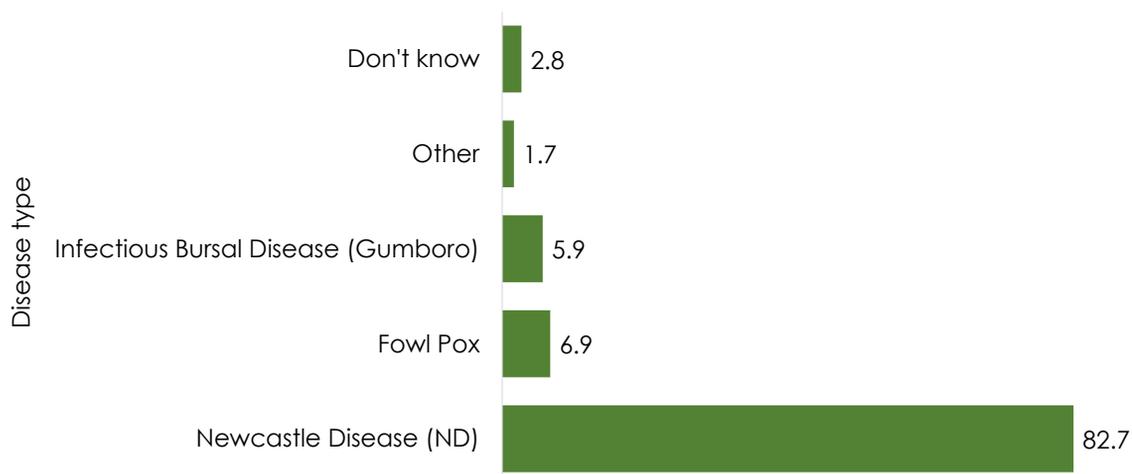


6.6 Major Diseases Affecting Poultry

6.6.1 Major Disease affecting Village Chicken

Households which reported being affected by diseases, reported Newcastle as the major disease at 82.7% followed by Fowl Pox at 6.9% and the least were other minor diseases combined at 1.7% (See Figure 6.6).

Figure 6.6: Major Diseases affecting Village Chickens





Broiler raising households which reported being affected by diseases, reported Newcastle as the major disease at 46.8%

followed by Gumboro at 25.9% and the least were other minor diseases combined at 10.7% (See Figure 6.7).

Figure 6.7: Percentage of Household Reporting Major Disease affecting Raising of Broiler Chickens

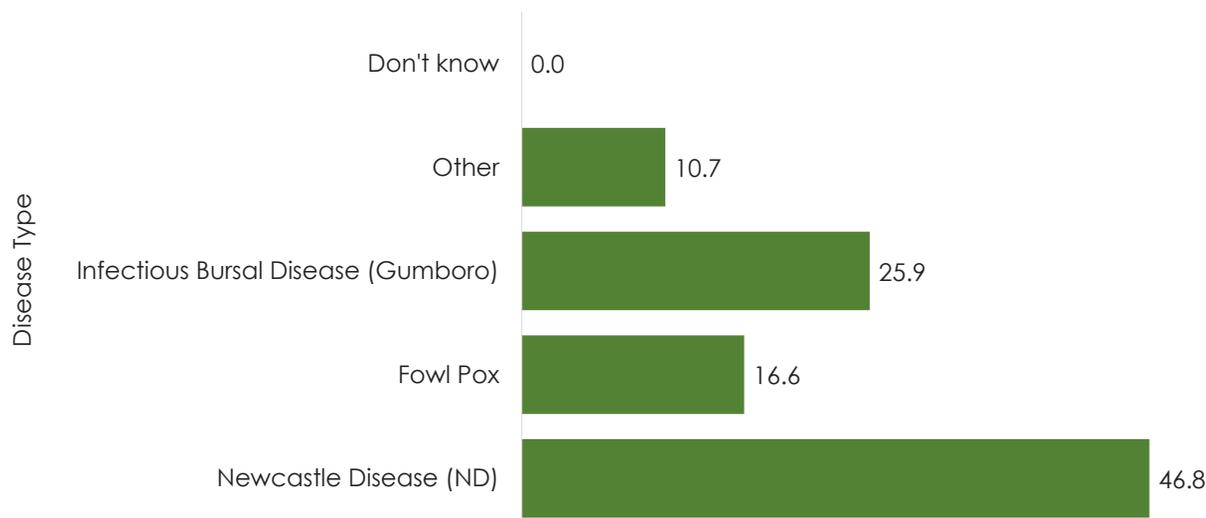
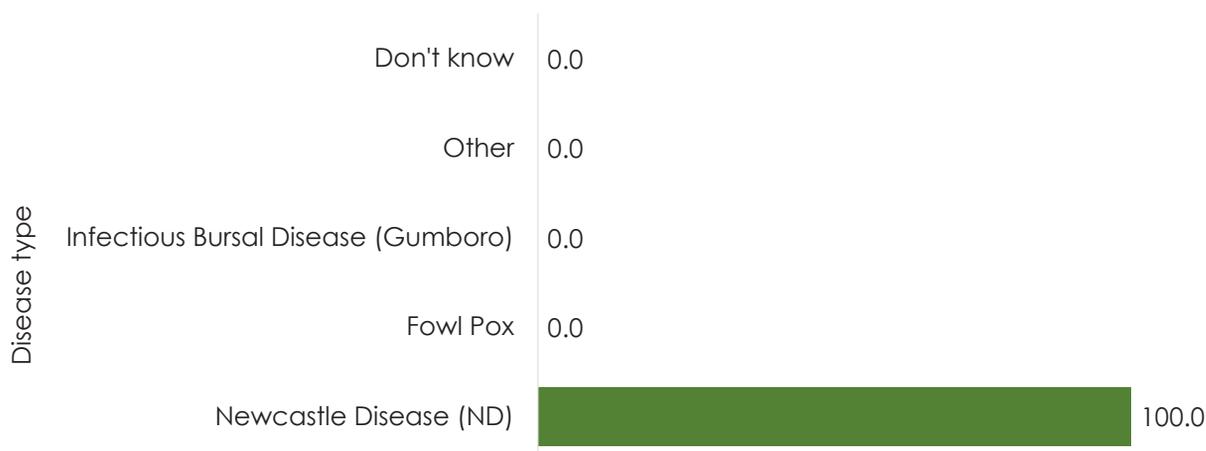


Figure 6.8 shows that the only disease that affected households raising layer chickens was Newcastle at 100.0%.

Figure 6.8: Major diseases affecting Layer Chickens



6.7 Chicken Population

6.7.1 Number of Village Chicken Raised by Households and Establishments

The population of village chicken (free range) from both household and establishment was 21,232,447 as at 30th April 2022. Southern Province reported the highest number at

19.7% of the total national stock, followed by Central Province at 17.9% and the lowest was North-Western at 4.5% (see Table 6.3). The contribution from establishments was very small in all provinces.

Table 6.3: Number of Village Chickens Raised as at 30th April 2022 by Province

Province	Village Chickens Raised as at April 2022 by Province			
	Households	Establishments	Total	
	Number	Number	Number	%
Central	3,739,721	61,061	3,800,782	17.9
Copperbelt	2,355,275	17,676	2,372,951	11.2
Eastern	2,595,153	5,815	2,600,968	12.3
Luapula	1,266,661	3,937	1,270,598	6.0
Lusaka	1,204,869	8,089	1,212,958	5.7
Muchinga	1,385,008	8,866	1,393,874	6.6
Northern	2,138,922	1,024.12	2,139,946	10.1
North Western	958,946	3,906	962,852	4.5
Southern	4,090,449	97,985	4,188,434	19.7
Western	1,288,282	803	1,289,085	6.1
Zambia	21,023,285	209,163	21,232,447	100.0

6.7.2 Number of Broiler Chicken Raised by Households and Establishments

The population of broiler chicken from both households and establishments was 5,486,509 as at 30th April, 2022. Lusaka Province recorded the highest share 37.0% of the total national

stock, followed by Central with 15.5%. Northern Province reported the lowest broiler population with only 1.1% of the national population (See Table 6.4).

Table 6.4: Number of Broiler Chickens Raised as at 30th April, 2022 by Province

Province	Household	Establishment	Total	
	Number	Number	Number	%
Central	461,918	391,154	853,073	15.6
Copperbelt	646,646	98,183	744,829	13.6
Eastern	552,522	7,010	559,532	10.2
Luapula	275,993	7,135	283,128	5.2
Lusaka	2,003,602	26,365	2,029,967	37.0
Muchinga	118,504	1,773	120,277	2.2
Northern	52,159	5,548	57,707	1.1
North Western	189,549	1,450	190,999	3.5
Southern	379,529	203,467	582,996	10.6
Western	62,769	1,232	64,001	1.2
Zambia	4,743,192	743,317	5,486,509	100.0

6.7.3 Number of Layer Chickens Raised by Households and Establishments

The population of layers from both household and establishment was 2,244,434, Central Province accounting for the highest share of 56.1%. Lusaka Province contributed 16.5% with

Muchinga accounting for the lowest at 0.3% of the total national stock. Contributions from establishments was generally low (see Table 6.5).



Table 6.5: Number of Layer Chickens Raised as at 30th April 2022 by Province

Province	Layers Chickens Raised as at 30th April 2022			
	Household	Establishment	Total	
	Number	Number	Number	%
Central	1,259,050	25	1,259,075	56.10
Copperbelt	38,208	75	38,283	1.71
Eastern	41,896	7	41,903	1.87
Luapula	10,753	13	10,766	0.48
Lusaka	369,116	13	369,129	16.45
Muchinga	7,813	65	7,878	0.35
Northern	150,037	5	150,042	6.69
North-Western	49,929	47	49,976	2.23
Southern	289,045	107	289,153	12.88
Western	28,222	7	28,229	1.26
Zambia	2,244,070	364	2,244,434	100.00

6.8 Average Number of Chickens Raised by Chicken Raising household

On average and as at 30th April, 2022, more Layers were raised per household followed by broilers while the least was village chickens. An average of 146 layers were raised per Layer

raising households, 133 broilers per broiler raising households, and 13 village chickens per household (See Table 6.6).

Table 6.6: Average Number of Chickens Raised Per Household by Province

Province	Chickens Raised Per Household by Province								
	VILLAGE CHICKENS			BROILERS			LAYER CHICKENS		
	Number of HHs	Number of Village Chickens	Average Village Chickens Raised by the Household	Number of HHs	Number of Broilers	Average Broiler Chickens Raised by the Households	Number of HHs	Number of Layer Chickens	Average Layer Chickens Raised by the Households
Central	206,800	3,739,721	18	2,639	461,918	175	1,068	1,259,050	1,179
Copperbelt	148,021	2,355,275	16	5,770	646,646	112	3,683	38,208	10
Eastern	252,805	2,595,153	10	5,799	552,522	95	881	41,896	48
Luapula	138,580	1,266,661	9	2,595	275,993	106	839	10,753	13
Lusaka	80,936	1,204,869	15	9,582	2,003,602	209	654	369,116	564
Muchinga	121,405	1,385,008	11	1,091	118,504	109	500	7,813	16
Northern	175,318	2,138,922	12	2,827	52,159	18	593	150,037	253
North Western	88,775	958,946	11	1,405	189,549	135	3,066	49,929	16
Southern	268,154	4,090,449	15	3,403	379,529	112	3,671	289,045	79
Western	116,421	1,288,282	11	662	62,769	95	399	28,222	71
Zambia	1,597,215	21,023,285	13	35,773	4,743,192	133	15,354	2,244,070	146

6.9 Chicken Ownership by Female Members of the Household

6.9.1 Village Chicken Ownership by Female Members of Household

Table 6.7 shows the number of village chickens raised and owned by households and those owned by female members of household as at 30th April, 2022. Of the 20,477,435 village

chickens owned by household members in the country, 45.7% were owned by female household members.

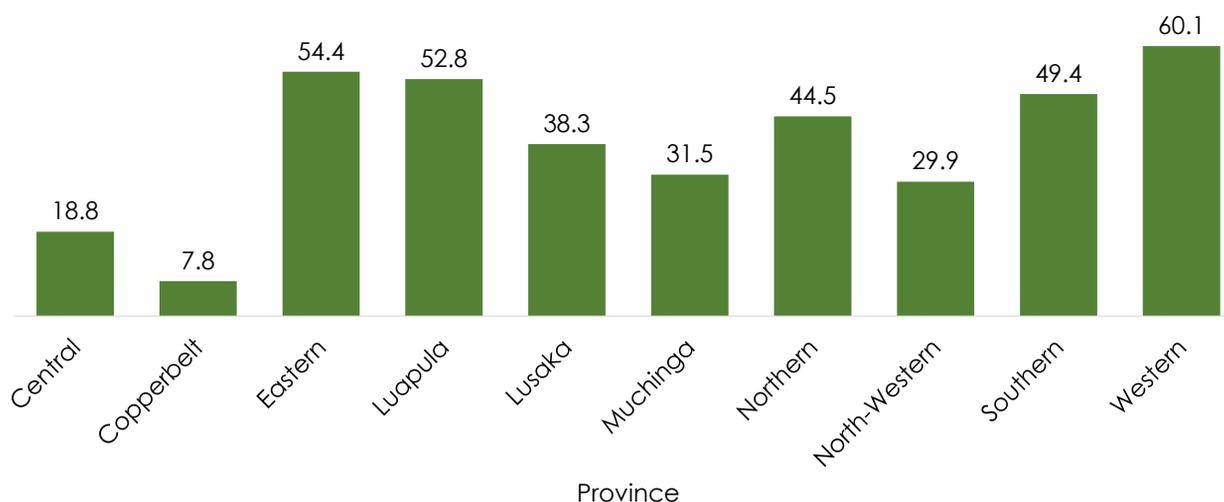
Table 6.7: Village Chickens Ownership by Female Members of Households

Province	Total Village Chickens				
	Raised by Households	Owned by Household Members		Owned by Females Household Members	
	Number	Number	%	Number	%
Central	3,739,721	3,683,762	98.5	1,796,941	18.8
Copperbelt	2,355,275	2,308,675	98.0	745,275	7.8
Eastern	2,595,153	2,538,022	97.8	1,411,746	54.4
Luapula	1,266,661	1,258,836	99.4	668,269	52.8
Lusaka	1,204,869	1,196,568	99.3	461,659	38.3
Muchinga	1,385,008	1,382,769	99.8	435,986	31.5
Northern	2,138,922	2,109,654	98.6	950,833	44.5
North-western	958,946	814,533	84.9	286,843	29.9
Southern	4,090,449	4,050,865	99.0	2,022,411	49.4
Western	1,288,282	1,133,751	88.0	774,505	60.1
Zambia	21,023,285	20,477,435	97.4	9,554,468	45.7

Figure 6.9 illustrates the percentage share of village chickens owned by female household members. Western Province had the highest

share at 60.1% followed by Eastern at 54.4%. Muchinga had the lowest share at 31.5%.

Figure 6.9: Percentage of Village Chickens Owned by Female Household Members by Province





6.9.2 Broiler Chicken Ownership by Female Members of Households

Table 6.8 shows the number of broiler chickens raised and owned by households and those owned by female members of household as at 30th April, 2022. Of the 4,656,409 broiler

chickens owned by household members in the country, 26.0% were owned by female household members.

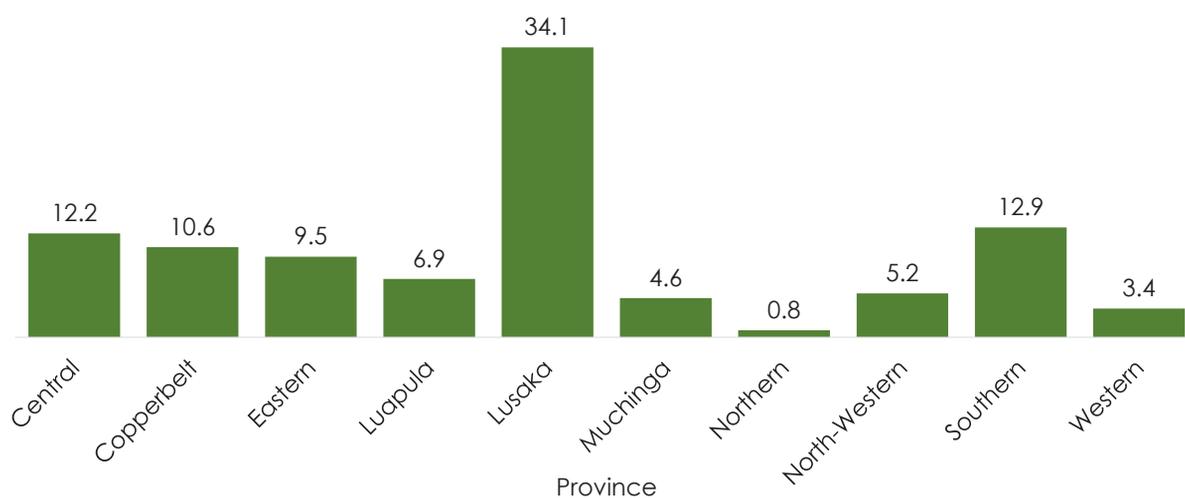
Table 6.8: Broiler Chickens Ownership by Female Members of Households

Province	Total Broiler Chickens				
	Raised by Households	Owned by Households		Owned by Females Household Members	
	Number	Number	%	Number	%
Central	461,918	461,918	100.0	147,751	12.2
Copperbelt	646,646	646,646	100.0	128,184	10.6
Eastern	552,522	519,078	94.0	114,751	9.5
Luapula	275,993	275,993	100.0	83,151	6.9
Lusaka	2,003,602	1,996,614	99.7	412,575	34.1
Muchinga	118,504	111,382	94.0	55,749	4.6
Northern	52,159	52,159	100.0	9,951	0.8
North-western	189,549	160,014	84.4	62,586	5.2
Southern	379,529	377,395	99.4	156,186	12.9
Western	62,769	55,210	88.0	40,860	3.4
Zambia	4,743,192	4,656,409	98.2	1,211,744	26.0

Figure 6.10 indicate the percentage share of broiler chickens owned by female household members. Lusaka Province had the highest

share at 34.1% followed by Southern at 12.9%. Northern Province had the lowest share at 0.8%.

Figure 6.10: Percentage of Broiler Chickens Owned by Female Household Members by Province



6.9.3 Layer Chicken Ownership by Female Members of Household

Table 6.9 shows the population of layer chickens raised and owned by households and those owned by female members of household as at 30th April, 2022. Of the 1,382,280 layer

chickens owned by household members in the country, 33.6% were owned by female household members.

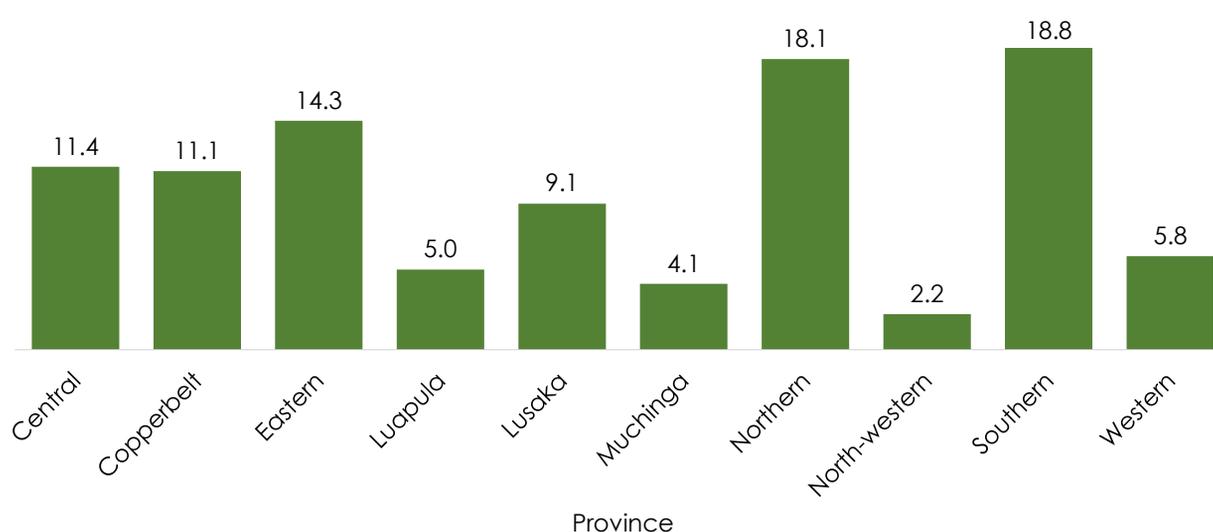
Table 6.9: Layer Chickens Ownership by Female Members of Households

Province	Total Layer Chickens				
	Raised by Households	Owned by Households		Owned by Females Household Members	
	Number	Number	%	Number	%
Central	1,259,050	546,200	39.5	52,436	11.4
Copperbelt	38,208	38,208	2.8	51,143	11.1
Eastern	41,896	41,896	3.0	65,628	14.3
Luapula	10,753	9,104	0.7	22,960	5.0
Lusaka	369,116	342,782	24.8	41,861	9.1
Muchinga	7,813	7,813	0.6	18,887	4.1
Northern	150,037	150,037	10.9	83,298	18.1
North-western	49,929	45,813	3.3	10,221	2.2
Southern	289,045	177,118	12.8	86,471	18.8
Western	28,222	23,308	1.7	26,786	5.8
Zambia	2,244,070	1,382,280	93.8	459,689	33.6

Figure 6.11 show the percentage share of layer chickens owned by female household members. Southern Province had the highest percentage

share at 18.8% followed by Northern at 18.1%. North- Western had the lowest share at 2.2%.

Figure 6.11: Percentage of layer Chickens Owned by Female Household Members





6.10. Other Poultry

The duck population from both households and establishments was 1,230,152 as at 30th April 2022. Southern Province recorded the highest

number at 334,280 of the total national duck population, followed by Eastern Province at 165,948. Western Province recorded the lowest at 46,182 of the total national duck population (see Table 6.10).

Table 6.10: Number of Households and Establishments Raising Ducks by Province as at 30th April 2022

Province	Ducks Raised				Total
	Households		Establishments		
	No. of Households	Number of Ducks	No of Establishments	Number of Ducks	Ducks raised by Households and Establishments
Central	20,275	144,249	93	1,452	145,702
Copperbelt	14,013	104,647	83	420	105,066
Eastern	23,494	165,292	27	656	165,948
Luapula	15,706	76,930	13	112	77,042
Lusaka	12,049	88,420	5	877	89,296
Muchinga	14,329	69,619	102	244	69,863
Northern	25,385	134,559	5	401	134,960
North-Western	7,212	61,457	88	357	61,814
Southern	39,600	333,764	99	516	334,280
Western	7,387	46,182	-	-	46,182
Total	179,449	1,225,118	514	5,034	1,230,152

Table 6.11 show that the guinea fowl population from both household and establishments was 1,194,058. Southern Province recorded the highest number at 775,720 of the total national

population, followed by Central Province at 149,749. North-Western Province recorded the lowest population at 4,731.

Table 6.11: Number of Households Raising Guinea Fowls and Number of Guinea Fowls Raised by Province as at 30 April 2022

Province	Guinea fowls Raised				Total
	Households		Establishments		
	No. of Households	Number of Guinea fowls	No of Establishments	Number of Guinea fowls	Guinea fowls raised by Households and Establishments
Central	17,584	146,280	166	3,469	149,749
Copperbelt	6,455	31,841	117	1,394	33,236
Eastern	17,584	114,516	39	939	115,455
Luapula	1,988	12,994	4	41	13,035
Lusaka	3,989	40,329	3	972	41,301
Muchinga	3,990	21,157	96	517	21,674
Northern	3,659	21,238	4	442	21,680
North-Western	905	4,563	94	168	4,731
Southern	75,331	774,240	97	1,480	775,720
Western	2,864	17,476	-	-	17,476
Total	134,348	1,184,635	620	9,423	1,194,058

Table 6.12 show that the turkey population from both household and establishment was 80,916. Southern Province recorded the highest number at 35,954 of the total national turkey

population, followed by Central Province at 19,686. Muchinga Province recorded the lowest number at 83.

Table 6.12: Number of Households Raising Turkeys and Number of Turkey Raised by Province as at 30 April 2022

Province	Turkeys Raised				Total
	Households		Establishments		
	No. of Households	Number of Turkeys	No of Establishments	Number of Turkeys	Turkeys raised by Households and Establishments
Central	4,048	18,292	113	1,394	19,686
Copperbelt	1,913	10,434	96	316	10,750
Eastern	480	1,034	6	15	1,049
Luapula	46	464	5	17	481
Lusaka	970	9,978	3	508	10,486
Muchinga	-	-	105	83	83
Northern	261	1,114	1	15	1,129
North-Western	297	719	93	143	862
Southern	9,230	35,500	114	453	35,954
Western	79	436	-	-	436
Total	17,324	77,972	536	2,944	80,916

The pigeon population from both household and establishment was 1,428,348 as shown in Table 5.13. Southern Province recorded the highest number at 804,168 of the total national

pigeon population, followed by Eastern at 263,490. Muchinga Province recorded the lowest number at 11,930.

Table 5.13: Number of Households raising Pigeons and Number of Pigeons raised by Province as at 30 April 2022

Province	Pigeons Raised				Total
	Households		Establishments		
	No. of Households	Number of Pigeons raised	No of Establishments	Number of Pigeons raised	Pigeons raised by Households and Establishments
Central	9,256	175,286	86	4,739	180,025
Copperbelt	1,149	28,011	83	737	28,748
Eastern	12,154	262,996	19	494	263,490
Luapula	1,431	35,342	3	593	35,935
Lusaka	1,726	24,960	101	374	25,334
Muchinga	1,605	11,930	2	-	11,930
Northern	4,096	37,936	90	33	37,969
North-Western	1,279	11,872	107	814	12,686
Southern	39,566	804,168	-	-	804,168
Western	1,810	28,063	-	-	28,063
Total	74,072	1,420,563	491	7,784	1,428,348

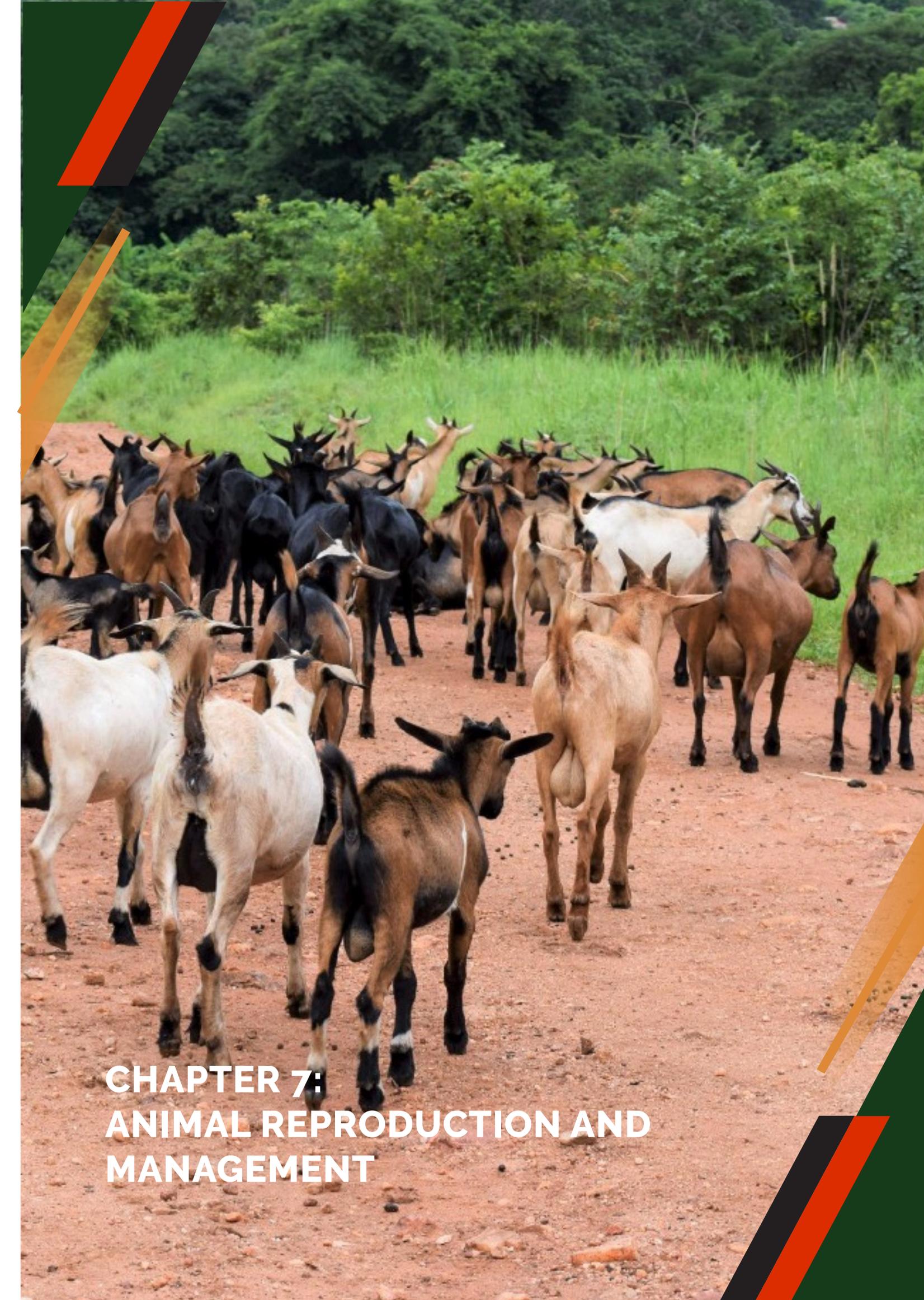


Table 5.14 show that the rabbit population from both household and establishment was 287,015. Lusaka Province recorded the highest number at 83,792 of the total national rabbit

population, followed by the Copperbelt at 50,878. Western Province recorded the lowest number at 374.

Table 5.14: Number of Households raising Rabbits and Number of Rabbits raised by Province as at 30 April 2022

Province	Rabbits Raised				Total
	Households		Establishments		
	No. of Households	Number of Rabbits	No of Establishments	Number of Rabbits	Rabbits raised by Households and Establishments
Central	2,993	35,731	17	271	36,001
Copperbelt	7,496	50,346	73	532	50,878
Eastern	1,600	15,335	4	117	15,452
Luapula	3,593	22,291	4	14	22,305
Lusaka	6,372	83,742	3	49	83,792
Muchinga	3,659	18,130	105	98	18,228
Northern	5,523	43,932	3	183	44,115
North-Western	619	6,976	96	146	7,122
Southern	1,132	8,748	103	-	8,748
Western	89	374	-	-	374
Total	33,077	285,604	408	1,410	287,015



**CHAPTER 7:
ANIMAL REPRODUCTION AND
MANAGEMENT**



Chapter 7: Animal Reproduction and Management

7.0 Animal Reproduction and Management

This chapter presents the households' results obtained from Animal Reproduction and Management. Livestock reproduction section highlights reproduction management practices for the four major livestock i.e. Cattle, Goats, Sheep and Pigs. Note that controlled breeding strategies are discussed only for cattle as it was not practiced in other types of livestock. Livestock management, issues such as perimeter fencing, record keeping, supplementary feeding, access to water, livestock extension services, feeding practices and animal health matters for the period 1st May 2021 to 30th April, 2022 are discussed.

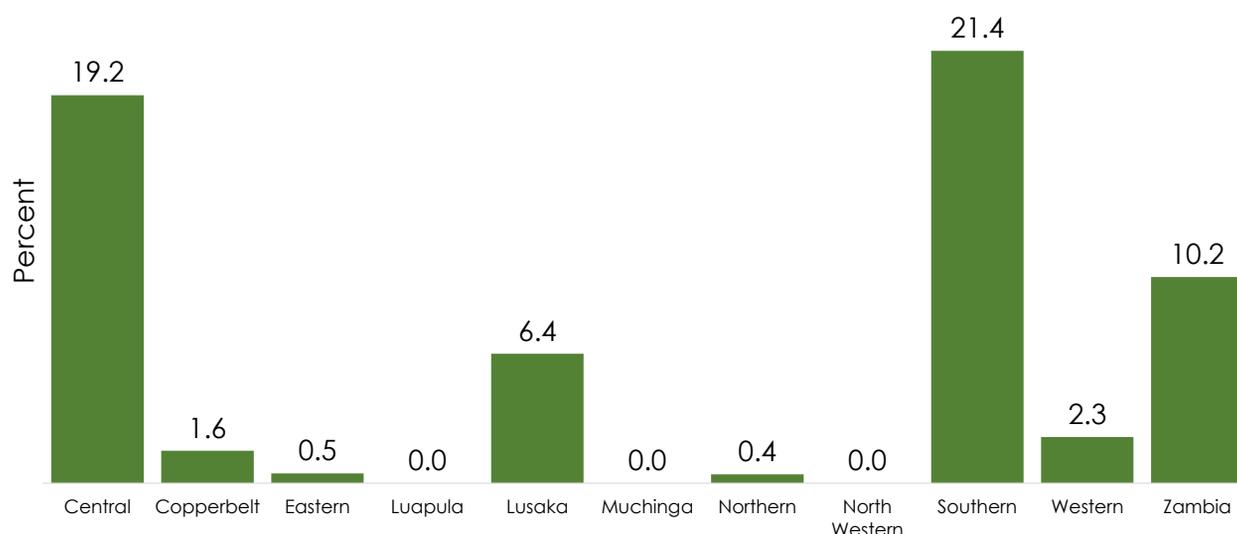
7.1 Households Engaging in Reproduction Management Practices for Cattle

Reproduction management was practiced by 10.2% (44,889) of the national total of the cattle raising households in the country (see Table 7.1 and Figure 7.1). The Table shows that 21.4% and 19.2% of the recorded households reported the highest proportion of households practicing reproduction management for Southern and Central Provinces, respectively. However, Muchinga, North-Western and Luapula Provinces did not report any households engaged in reproduction management.

Table 7.1: Number and Percentage of Cattle Raising Households Practicing Controlled Breeding in Cattle by Province

Province	Number of Households Raising Cattle	Households Practicing Controlled Breeding	
		Number	Percent
Central	57,834	11,119	19.2
Copperbelt	8,863	142	1.6
Eastern	124,968	605	0.5
Luapula	979	-	0.0
Lusaka	9,634	618	6.4
Muchinga	12,740	-	0.0
Northern	25,910	113	0.4
North Western	11,944	-	0.0
Southern	146,450	31,376	21.4
Western	40,079	916	2.3
Zambia	439,401	44,889	10.2

Figure 7.1: Percentage of Cattle Raising Households Practicing Controlled Breeding in Cattle by Province



7.2 Fencing of Livestock Holding

Table 7.2 shows the number and percentage of livestock keeping households with fenced livestock holdings by province. The total number of livestock-keeping households with fenced livestock holdings was 370,724 representing 21.1% of the livestock keeping households in the country.

Within provinces, Lusaka had the highest percentage of households with fenced livestock holdings at 31.9%. Luapula and Southern Provinces recorded the least percentage of households with fenced livestock holdings at 3.8% and 4.1%, respectively.

Table 7.2: Number and Percentage of Livestock Keeping Households with Fenced Livestock

Province	Households Involved in Livestock Farming	Total Households with fenced Livestock Holding	
	Number	Number	%
Central	216,877	61,824	28.5
Copperbelt	158,070	43,204	27.3
Eastern	284,413	70,218	24.7
Luapula	144,788	5,481	3.8
Lusaka	107,753	34,323	31.9
Muchinga	131,168	22,669	17.3
Northern	185,767	57,974	31.2
North Western	99,500	16,986	17.1
Southern	292,846	12,059	4.1
Western	132,832	45,988	34.6
Zambia	1,754,014	370,724	21.1



7.3 Livestock Record Keeping

The total number of households reported to be keeping records on livestock was 76,695. This represented 4.4% of the livestock keeping households in the country. Lusaka Province had the highest number of households that

kept livestock records with 8.4% out of the total households involved in livestock farming keeping records in the province. Eastern and Western Provinces had the least number of households that kept livestock records with 2.1% and 1.3%, respectively (see Table 7.3).

Table 7.3: Households Keeping Livestock Records by Province

Province	Number and Percentage of Livestock Keeping Households with Fenced Livestock Holdings		
	Households Involved in Livestock Farming	Total Households Having Livestock Records	
	Number	Number	%
Central	216,877	10,107	4.7
Copperbelt	158,070	12,688	8.0
Eastern	284,413	5,855	2.1
Luapula	144,788	5,971	4.1
Lusaka	107,753	9,048	8.4
Muchinga	131,168	4,742	3.6
Northern	185,767	8,859	4.8
North Western	99,500	3,256	3.3
Southern	292,846	14,503	5.0
Western	132,832	1,666	1.3
Zambia	1,754,014	76,695	4.4

Household heads with undergraduate qualification recorded the highest percentage of those keeping records at 40.7% followed by those with bachelor's degree, certificate/

diploma, college student and master's degree at 17.5%, 14.6%, 13.8% and 11.2%, respectively (see Table 7.4).

Table 7.4: Number and Percentage of Households Keeping Records by Educational Level

Highest Education Level Completed	Households keeping livestock records		Total Households
	Number	Percent	
None	1,034	0.6	170,581
Sub-standard A, B; Grade 1	1,295	4.9	26,451
Standard 1; Grade 2	3,214	5.5	58,050
Standard 2; Grade 3	1,460	1.9	77,293
Standard 3; Grade 4	3,429	3.2	106,833
Standard 4; Grade 5	860	0.7	120,851
Standard 5; Grade 6	6,278	3.7	170,613
Standard 6; Grade 7	10,556	2.9	358,163
Form 1; Grade 8	4,107	3.1	134,383
Form 2; Grade 9	11,505	5.1	227,483
Form 3; Grade 10	4,339	7.8	55,342
Form 4; Grade 11	3,084	8.7	35,634

Highest Education Level Completed	Households keeping livestock records		Total Households
	Number	Percent	
Form 5; Grade12	11,636	7.0	166,834
Form 6 Lower	-	-	2,815
Form 6 Upper	-	-	1,332
College Student	619	13.8	4,471
Undergraduate student	684	40.7	1,679
Certificate/Diploma	7,906	14.6	54,234
Bachelors Degree	4,324	17.5	24,779
Masters degree & above	364	11.2	3,255
TOTAL	76,694	4.3	1,801,075

7.4 Establishments Practicing Supplementary Feeding

The total number of livestock-keeping establishments practicing supplementary feeding was 899, representing 62% of the livestock keeping establishment in the country (see Table 7.5). The highest number of establishments that practiced supplementary feeding was in Luapula Province at 88% of

the total establishments involved in livestock farming in the province. This was followed by Southern Province at 72 %, while the province with the least number of establishments practicing supplementary feeding was Northern Province at 24%.

Table 7.5: Establishments Practicing Supplementary Feeding by Province

Province	Establishments raising Livestock	Establishments Practicing Supplementary Feeding	
	Number	Number	%
Central	472	286	61
Copperbelt	237	146	62
Eastern	94	62	66
Luapula	41	36	88
Lusaka	130	82	63
Muchinga	85	40	47
Northern	42	10	24
North-Western	45	26	58
Southern	260	188	72
Western	34	23	68
Zambia	1,440	899	62

7.5 Sources of Water

Table 7.5 shows the percentage of households accessing various sources of water by province, boreholes/wells were the most utilized source of water at 35.8%, followed by stream/river at 24.3% while the least source of water was the Lake at 0.4%.

Among provinces, Lusaka had the highest percentage of households that utilized boreholes/wells at 53.3%. Muchinga, Northwestern and Western Provinces sourced their water mainly from streams/rivers with at least 30% each during the reference period.



Table 7.5: Percentage of Households Accessing Various Water Sources for Livestock by Province

Province	Livestock Raising Households	Sources of water							
		Stream/river	Spring	Lake	Water utility company	Swamp/dambo/wetlands	Dam/reservoir	Borehole/Wells	Other water sources
	Number	%	%	%	%	%	%	%	%
Central	216,877	16.7	0	0	2.6	3	2.3	33.3	4.22
Copperbelt	158,070	7.6	0.6	0	14.4	1.9	1.2	32.6	4.17
Eastern	284,413	27.4	0.7	0	1.4	7.1	4.6	50.3	0.86
Luapula	144,788	9.5	10.9	0	1.5	8.7	0	28.9	4.05
Lusaka	107,753	16	0	0	27.4	0.3	0.9	53.3	0.21
Muchinga	131,168	32.5	0.4	0	2.1	0.9	1	29.5	3.36
Northern	185,767	33.7	5.9	3.6	6.9	1.4	0.4	36.4	1.17
North-western	99,500	25.5	0.2	0	6.6	2	0.1	47	1.85
Southern	292,846	33	0.9	0	5.1	3.4	15.4	27.2	1.49
Western	132,832	31.9	2.8	0.7	2	17.4	2.3	22.5	2.04
Zambia	1,754,014	24.3	2.1	0.4	5.9	4.6	4.1	35.8	22.7

7.6 Distance to Nearest Source of Water

Table 7.7 shows the percentage of livestock-raising households by distance to source of water and province. At national level, 7.1% of the livestock-raising households accessed water over 10 km away from their homes.

Within provinces, Southern had the highest percentage of households accessing water over 10 km away from their homes at 11.3%, followed by Eastern at 10.1%. However, on the Copperbelt only 2.7% of households accesses water beyond 10 km.

Table 7.7: Percentage of Households Accessing Various Water Sources for Livestock by Distance

Province	Livestock Raising Households	Distance (km) to Source of Water				
		0-1 km	2-3 km	4-6 km	7-10 km	Over 10 km
	Number	%	%	%	%	%
Central	216,877	3.5	2.8	1.7	2.6	8.4
Copperbelt	158,070	0.3	0.2	0.5	1.2	2.7
Eastern	284,413	5.6	5.9	7.2	3.3	10.1
Luapula	144,788	3.6	2.6	3.7	3.4	3.3
Lusaka	107,753	4.5	6.1	4.9	3.9	2.4
Muchinga	131,168	2.8	1.0	3.0	4.0	4.1
Northern	185,767	2.4	3.1	4.8	2.0	7.5
North-western	99,500	5.0	3.7	2.2	3.3	3.6
Southern	292,846	2.1	4.6	5.1	3.8	11.3
Western	132,832	5.3	3.6	3.0	2.1	7.2
Zambia	1,754,014	3.4	3.6	4.0	3.0	7.1

7.7 Access to Livestock Production Extension Services

Table 7.8 shows the number and percentage of households accessing livestock extension services by province. A total of 244,207 households, accounting for 13.9% of the livestock-raising households, accessed livestock extension services in the country.

Within provinces, Eastern had the highest percentage of households accessing livestock extension services at 26.5% (75,447 households) of the livestock raising households in the country followed by North-Western at 14.8% (14,718 households). Copperbelt Province had the lowest percentage at 2.6% (4,166 households).

Table 7.8: Number and Percentage of Livestock-raising Households Accessing Livestock Production Extension Services by Province

Province	Households Involved in Livestock Raising	Households Accessing Livestock Extension Services	
	Number	Number	%
Central	216,877	16,341	7.5
Copperbelt	158,070	4,166	2.6
Eastern	284,413	75,447	26.5
Luapula	144,788	19,157	13.2
Lusaka	107,753	15,584	14.5
Muchinga	131,168	15,574	11.9
Northern	185,767	32,120	17.3
North-Western	99,500	14,718	14.8
Southern	292,846	34,946	11.9
Western	132,832	16,154	12.2
Zambia	1,754,014	244,207	13.9

7.8 Animal Health Extension Services by Province

Table 7.9 shows the percentage of livestock raising households accessing animal health extension services by province. At national level, Eastern Province recorded the highest

percentage of households accessing animal health extension services at 28.4%, with Copperbelt Province at 4.4% being the least.

Table 7.9: Number and Percentage of Livestock Raising Households Accessing Animal Health Extension Services

Province	Households Involved in Livestock Raising	Households Accessing to Animal Health Extension Services	
	Number	Number	%
Central	216,877	37,022	17.1
Copperbelt	158,070	6,901	4.4
Eastern	284,413	80,730	28.4
Luapula	144,788	21,691	15.0
Lusaka	107,753	22,097	20.5
Muchinga	131,168	14,638	11.2
Northern	185,767	34,073	18.3
North-western	99,500	13,711	13.8
Southern	292,846	72,502	24.8
Western	132,832	25,170	18.9
Zambia	1,754,014	328,535	18.7



7.9 Tick Control Methods by Households

The survey results show that at national level, using knapsack spraying was the most common method of tick control at 10.3% (180,973 households) of the total livestock raising

households. This was followed by dipping at 8.0% while pour-on was the least at 1.1%.

However, majority households involved in raising livestock did not practice any tick control methods (see Table 7.10).

Table 7.10: Number and Percentage of Households Using Various Methods of Tick Control by Province

Province	Households Involved in Livestock Farming	Method of Tick Control								
		Dip-ping	Spraying	Pour-on	Hand dressing	Tradition-al	Inject-ables	None/Not applicable	Spraying using knapsack	Other
		Number	%	%	%	%	%	%	%	%
Central	216,877	6.6	15.6	0.7	0.9	5	0.8	28	10	0.8
Copperbelt	158,070	2.9	0.8	2	2.6	9.3	1.3	23.1	6.1	4.4
Eastern	284,413	7.4	7	0.6	0.2	5.6	5.6	28.3	20.6	1.8
Luapula	144,788	0.9	0.4	0	1	4.2	0.8	59.4	2	0.3
Lusaka	107,753	2.8	10.1	2.4	0.5	5.9	6.7	21.1	15.5	1.7
Muchinga	131,168	0.9	0.6	0.7	0.1	5.2	2.9	47.6	4.1	0.1
Northern	185,767	3.7	6.5	1.2	3.4	4.4	1.3	41.4	1.5	1.3
North-western	99,500	5.3	3.5	0.4	2.1	12.7	3.8	29.9	4.5	4
Southern	292,846	27.5	15.1	1.5	0.8	2	4.2	18.7	18.7	0.4
Western	132,832	1.6	4.7	1.4	10.3	15.4	8.3	25.3	3	0.6
Zambia	1,754,014	8	7.6	1.1	1.9	6.2	3.5	31	10.3	1.4

7.10 Vaccinations Against Selected Livestock Diseases

Out of the 1, 754,014 Livestock raising households in the country, 21.0% (385,748) of households vaccinated their animals against various diseases during the reference period. The majority of the livestock raising households vaccinated against Contagious Bovine pleuro-

pneumonia at 45.3% followed by vaccination against Brucellosis at 44.0%. Among provinces, Southern recorded the highest percentage of vaccination against Foot and Mouth disease at 20.4% followed by Eastern at 11.4% (see Table 7.11).

Table 7.11: Number and Percentage of Households that Vaccinated against Selected Livestock Diseases by Province

Province	Percentage of household vaccinating any of the livestock and other animal species against disease from 1st May 2021 to 30 April 2022												
	Households Involved in Vaccination		Vaccinated Diseases								Other diseases		
	Number	%	Black Quarter (BQ) (Black leg)	Haemorrhagic septicaemia (HS)	East Coast Fever (ECF)/ Corridor Disease	Contagious Bovine pleuro-pneumonia (CBPP)	Foot and Mouth disease (FMD)	Brucellosis	Newcastle disease (ND)	Infectious Bursal disease (IBD) (Gumboro)	Rabies	Anthrax	%
Central	44,015	11.4	4.4	2.8	5.4	1.1	6.7	0.5	5.1	1.5	2.2	0.5	0.1
Copperbelt	16,116	4.2	0.6	0.6	0.5	0.3	0.7	0.5	2.2	1.4	0.8	0.2	0.3
Eastern	86,109	22.3	2.4	1.6	8.3	1.2	11.4	0.7	9.6	2.4	1.8	0.5	0.3
Luapula	20,662	5.4	0.3	0.2	0	0.2	0	0.3	5.1	0.3	0.4	0	0
Lusaka	24,281	6.3	0.2	0	0.2	0	0.3	0.4	4.3	2	2.7	0.2	0.6
Muchinga	7,892	2	0.3	0	0.4	0.1	0.2	0	1.5	0.4	0.3	0	0.1
Northern	20,040	5.2	0.3	0	0.2	0.7	1.7	0.2	3.5	1	0.5	0.1	0.1
North-western	17,254	4.5	0.6	0.4	0.1	0.9	1.3	0.6	2.4	0.8	0.6	0.1	0.3
Southern	129,206	33.5	10.6	4.8	9.1	1	20.4	0.8	9.5	0.7	5.6	0.5	1.1
Western	20,172	5.2	1.1	0.2	0.1	1.6	2.6	0.1	0.8	0.2	0.1	0.7	0.1
Zambia	385,748	20.7	10.8	24.4	7.1	45.3	4	44	10.8	14.9	2.8	2.8	0



7.11 Households Using Cattle Draught Power

Table 7.12 shows the number of cattle-raising households using draught power for various purposes by province. A total of 323,120 cattle-raising households used draught power in the country representing, 73.5% of the national total cattle raising households. Among provinces, Southern had the highest

percentage of households using draught power at 84.8% of the cattle-raising households in the province followed by Central at 84.4%. Luapula Province had the least percentage of households at less than 1.0%. The majority of cattle-raising households in the country used draught power for crop agriculture/ploughing and was estimated at 91.3% of the total number of households using draught power.

Table 7.12: Number and Percentage of Households Using Cattle Draught Power for Various Purposes

Province	Number and Percentage of Households Using Cattle Draught Power for Various Purposes								
	Cattle Raising Households	Households using Draught Power		Purpose of Draught Power					
				Transport		Crop - Agricultural		Other	
	Number	Number	%	Number	%	Number	%	Number	%
Central	57,834	48,818	84.4	2,033	4.2	46,785	95.8	-	-
Copperbelt	8,863	6,092	68.7	726	11.9	5,366	88.1	-	-
Eastern	124,968	90,981	72.8	6,939	7.6	84,042	92.4	-	-
Luapula	979	-	-	-	-	-	-	-	-
Lusaka	9,634	6,764	70.2	1,381	20.4	5,382	79.6	-	-
Muchinga	12,740	1,065	8.4	236	22.2	829	77.8	-	-
Northern	25,910	14,046	54.2	2,390	17.0	11,656	83.0	-	-
North-western	11,944	7,024	58.8	4,017	57.2	3,007	42.8	-	-
Southern	146,450	124,245	84.8	1,802	1.5	122,443	98.5	-	-
Western	40,079	24,085	60.1	8,514	35.3	15,517	64.4	54	0.2
Zambia	439,401	323,120	73.5	28,038	8.7	295,027	91.3	54	0.017



**CHAPTER 8:
HONEY PRODUCTION AND SALES**



Chapter 8: Honey Production and Sales

This chapter highlights the data on honey production and sales in Zambia by households as recorded in the 2022 Livestock Survey.

8.1 Households Involved in Honey Production

Table 8.1 show that at national level, 48,251 households were involved in honey production. Among the provinces, Southern recorded the highest percentage of Households at 24.6 % (11,860). Luapula Province recorded the least percentage at less than 1.0% (236).

Table 8.1 Households Involved in Honey Production

Province	Honey Production	
	Number of Households	%
Central	3,289	6.8
Copperbelt	4,860	10.1
Eastern	8,527	17.7
Luapula	236	0.5
Lusaka	1,851	3.8
Muchinga	1,195	2.5
Northern	5,548	11.5
North Western	9,694	20.1
Southern	11,860	24.6
Western	1,192	2.5
Zambia	48,251	100.0

8.2 Comb Honey Produced by House Holds

Table 8.2 shows the quantity of comb honey produced by province. At national level, a total of 14,239 metric tonnes was produced by households. Among provinces, North-western

recorded the highest percentage of comb honey produced by households with 7,891 metric tonnes equivalent to 55.4% followed by Central and the Copperbelt at 11.2% and 11.0%, respectively.

Table 8.2 Comb Honey Produced by Households by Province, 1st May, 2021 to 30th April, 2022

Province	Comb Honey Production (MT) by Households	
	Quantity	%
Central	1,597.73	11.2
Copperbelt	1,572.21	11.0
Eastern	889.41	6.2
Luapula	119.13	0.8
Lusaka	134.91	0.9
Muchinga	6.87	0.1
Northern	842.04	5.9
North Western	7,891.00	55.4
Southern	652.18	4.6
Western	533.09	3.7
Zambia	14,239	100.0

8.3 Comb Honey Sold by Households

Table 8.3 shows the quantity of comb honey sold by households. At national level a total of 10,073 metric tonnes was sold by households.

Among provinces, North-western recorded the highest percentage of comb honey sold at 76.5 % (7,703 metric tonnes).

Table 8.3 Comb Honey Sold by Households by Province

Province	Comb Honey Sales by Households (Metric Tonnes)	
	Households	%
Central	170	1.7
Copperbelt	819	8.1
Eastern	439	4.4
Luapula	-	-
Lusaka	114	1.1
Muchinga	1	0.0
Northern	27	0.3
North Western	7,703	76.5
Southern	282	2.8
Western	518	5.1
Zambia	10,073	100.0

8.4 Major Buyers of Comb Honey

At national level, other households recorded the highest number of buyers of comb honey

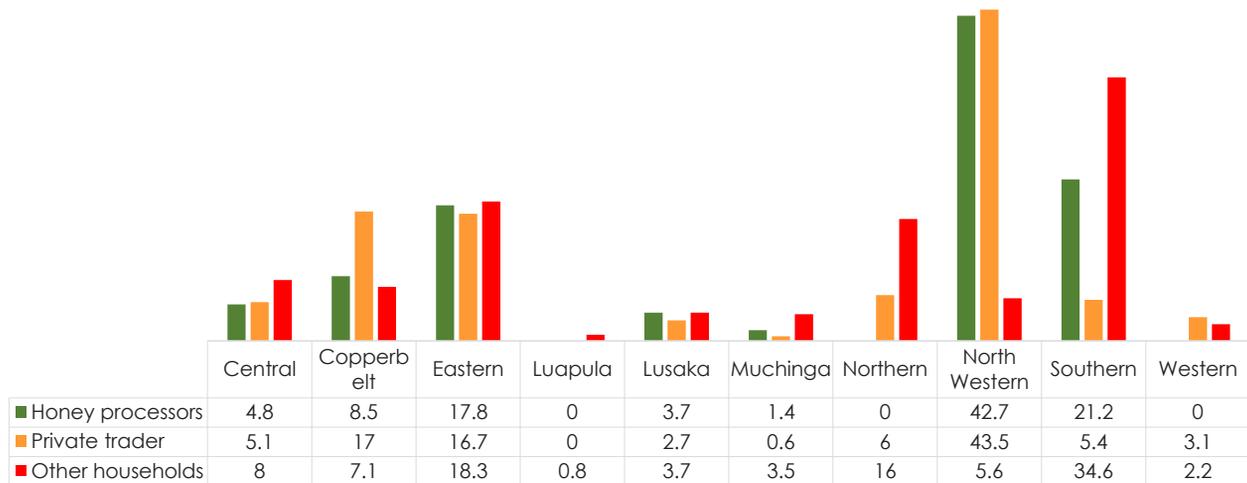
produced and sold at 29,362 followed by private traders at 14,180. Honey processors were the least buyers at 4,399 (see Table 8.4 and Figure 8.4).

Table 8.4 Major Buyers of Comb Honey Produced at Household Level by Province

Province	Honey processors		Private trader		Other households	
	Number	%	Number	%	Number	%
Central	211	4.8	719	5.1	2,358	8.0
Copperbelt	373	8.5	2,407	17.0	2,080	7.1
Eastern	782	17.8	2,365	16.7	5,380	18.3
Luapula	0	0.0	0	0.0	236	0.8
Lusaka	162	3.7	377	2.7	1,091	3.7
Muchinga	62	1.4	92	0.6	1,042	3.5
Northern	0	0.0	851	6.0	4,697	16.0
North Western	1,876	42.7	6,166	43.5	1,652	5.6
Southern	932	21.2	760	5.4	10,167	34.6
Western	0	0.0	442	3.1	658	2.2
Zambia	4,399	100	14,180	100.0	29,362	100.0



Figure 8.1: Major Buyers of Comb Honey by Province



8.5 Major Constraints in Honey Production

At national level, three constraints experienced by households involved in honey production were recorded under the headings: severe major-constrain, second severe major and the least severe major-constraint. The severe

major-constrain were pests at 24.2%, (see Figure 8.2), the second severe major-constraint was Beehive maintenance at 13.9% (see Figure 8.3), and the least severe major-constraint was lack of extension services at 22.3%. (see Figure 8.4).

Figure 8.2: Most Severe Major - Constraint Households Face in Honey Production

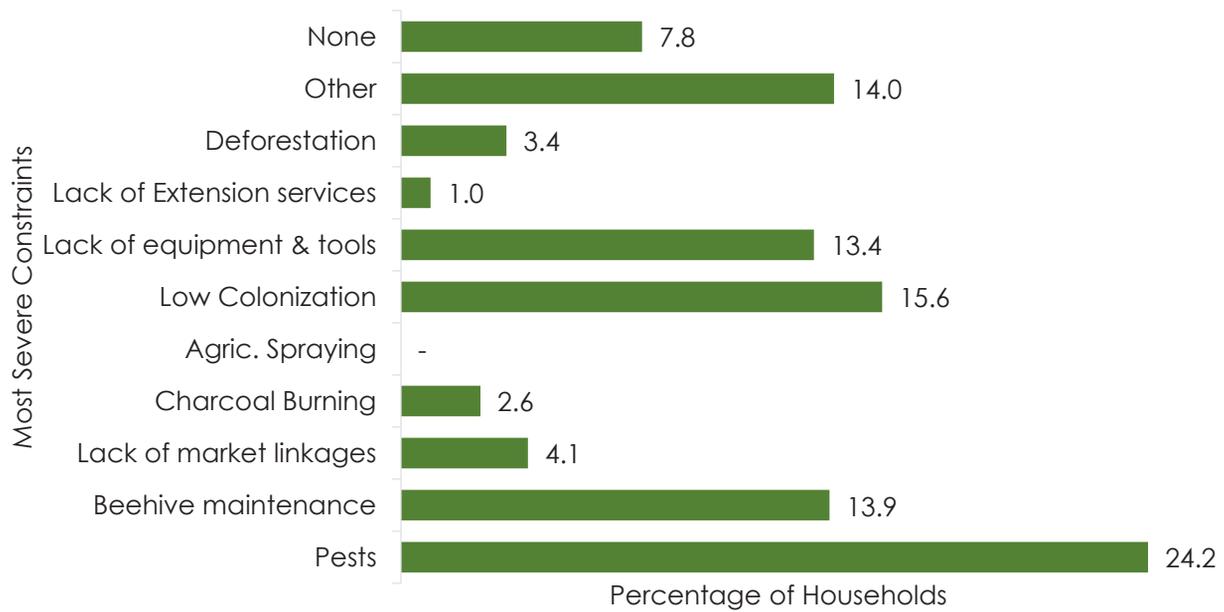


Figure 8.3: Second Severe major -Constraint Households Face in Honey Production

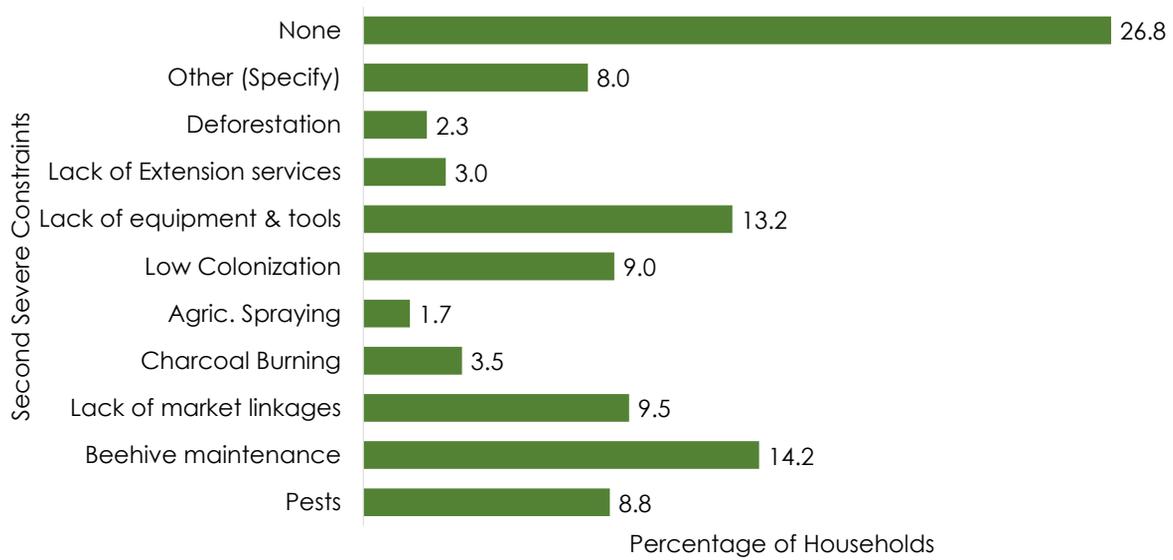
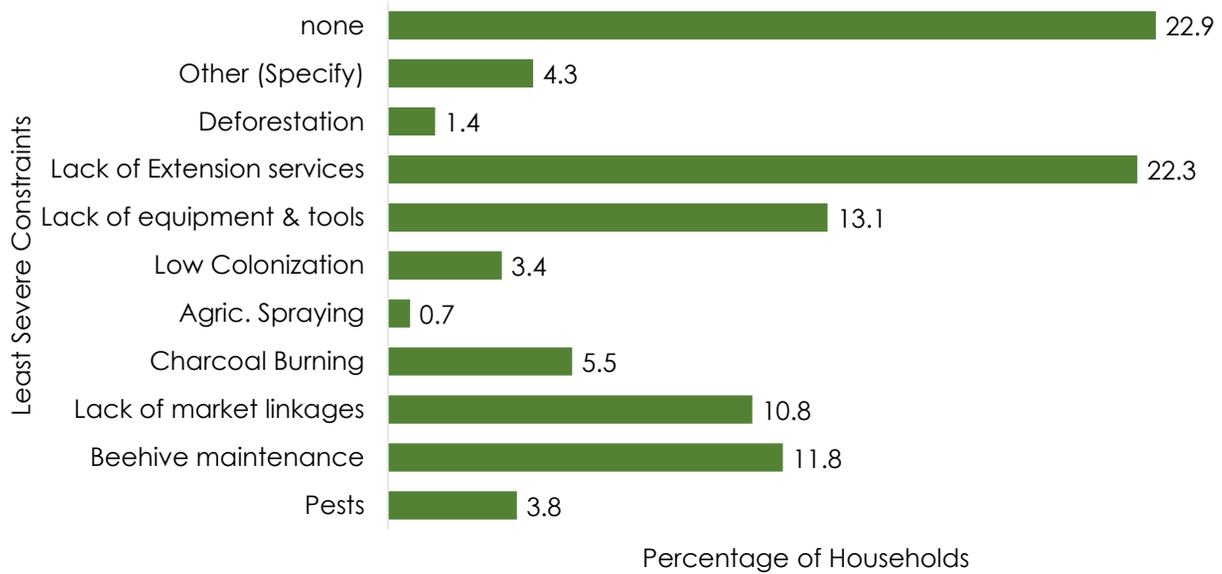


Figure 8.4: Least Severe major -Constraint Households Face in Honey Production







**CHAPTER 9:
MILK PRODUCTION**



Chapter 9. Milk Production

9.1. Milk Production from Households by Province

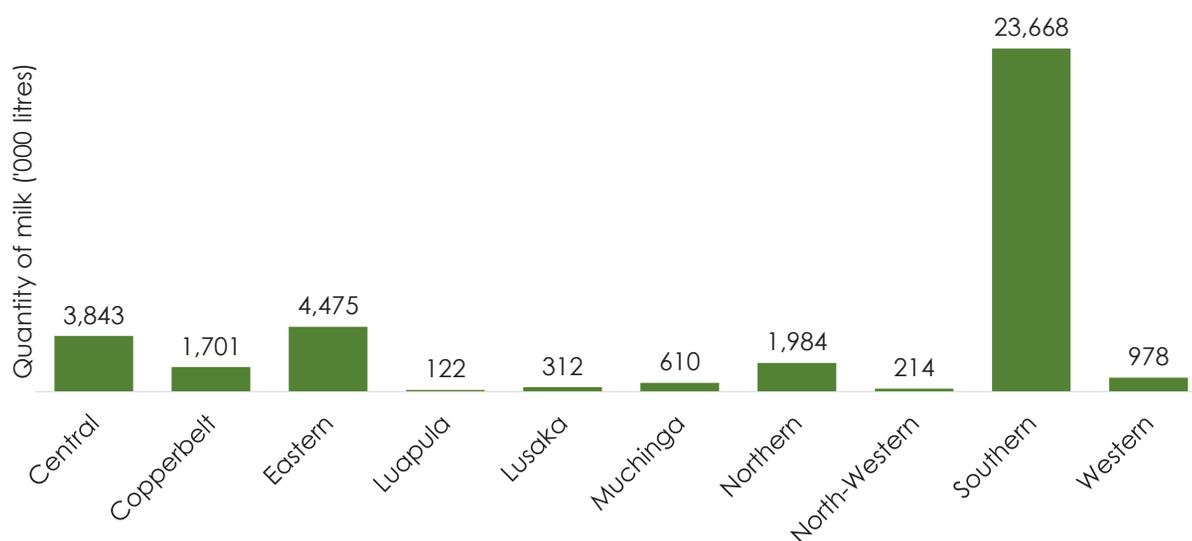
The quantity of milk produced from households by Province is shown in Table 9.1. A total of 37,906,803 liters of milk were produced by households during the reference period. Southern Province accounted for the highest contribution to total national output at 62.4%,

followed by Eastern and Central Provinces at 11.8 % and 10.1%, respectively (see Table 9.1 and Figure 9.1). Luapula Province reported the least percentage of milk produced from households at less than 1%.

Table 9.1: Quantity of Milk Produced by Households, 1st May 2021 – 30th April 2022 (Liters)

Province	Household Average Monthly Milk Production (Liters)	Total Monthly Milk Production (Liters)	Total Annual Milk Production (Liters)	%
Central	12.0	320,245	3,842,942	10.1
Copperbelt	50.8	141,739	1,700,869	4.5
Eastern	8.0	372,953	4,475,434	11.8
Luapula	8.0	10,184	122,209	0.3
Lusaka	8.0	25,959	311,503	0.8
Muchinga	8.0	50,851	610,210	1.6
Northern	58.3	165,303	1,983,634	5.2
North-Western	10.0	17,823	213,882	0.6
Southern	28.0	1,972,326	23,667,913	62.4
Western	8.0	81,517	978,207	2.6
Zambia	19.9	3,158,900	37,906,803	100.0

Figure 9.1: Milk Production from Households by Province (1st May 2021 - 30th April, 2022)



9.2 Monthly Milk Production from Establishments, 1st May 2021 – 30th April 2022

The quantity of milk produced from establishments by Province is shown in Table 9.2. At national level, a total of 51,981,604 liters of milk were produced by the establishments.

Table 10.2: Quantity of Milk Produced by Establishments, 1st May 2021 – 30th April 2022 (Liters)

Province	2021 May	2021 Jun	2021 Jul	2021 Aug	2021 Sep	2021 Oct	2021 Nov	2021 Dec	2022 Jan	2022 Feb	2022 Mar	2022 April	Total
Central	1,081,138	1,166,174	1,235,959	1,241,829	1,219,558	1,249,201	1,226,114	1,265,521	1,190,589	1,039,786	1,272,861	1,217,104	14,405,835
Copperbelt	334,513	288,038	282,607	297,789	323,875	355,645	381,724	418,019	347,654	360,422	417,206	414,914	4,222,406
Eastern	-	-	-	-	-	-	-	-	-	-	-	-	-
Luapula	228	228	233	233	233	160	228	-	1,203	1,203	1,149	1,149	6,247
Lusaka	117,139	392,036	375,095	488,044	325,638	318,407	329,571	328,267	309,829	307,972	818,423	812,097	4,922,518
Muchinga	7,433	7,416	6,726	5,993	5,782	5,773	5,938	7,093	8,374	9,121	8,500	9,424	87,573
Northern	3,590	3,420	3,392	3,292	3,404	3,432	3,528	3,885	4,260	4,546	4,750	15,365	56,864
North-Western	10,933	8,880	8,944	9,589	8,707	8,661	9,705	10,046	10,064	10,011	10,130	11,107	116,777
Southern	1,915,085	1,915,753	2,217,938	2,368,594	2,268,688	2,361,073	2,248,771	2,343,878	2,288,407	2,040,264	3,145,699	3,049,235	28,163,384
Western	-	-	-	-	-	-	-	-	-	-	-	-	-
Zambia	3,470,058	3,781,945	4,130,893	4,415,363	4,155,885	4,302,353	4,205,580	4,376,709	4,160,380	3,773,325	5,678,718	5,530,395	51,981,604



Figure 9.2 shows that the highest quantity of milk from establishments was produced in March and April 2022 at 5,678,718 and 5,530,395

liters, respectively. The lowest quantity was recorded in the month of May 2021 at 3,470,058 liters.

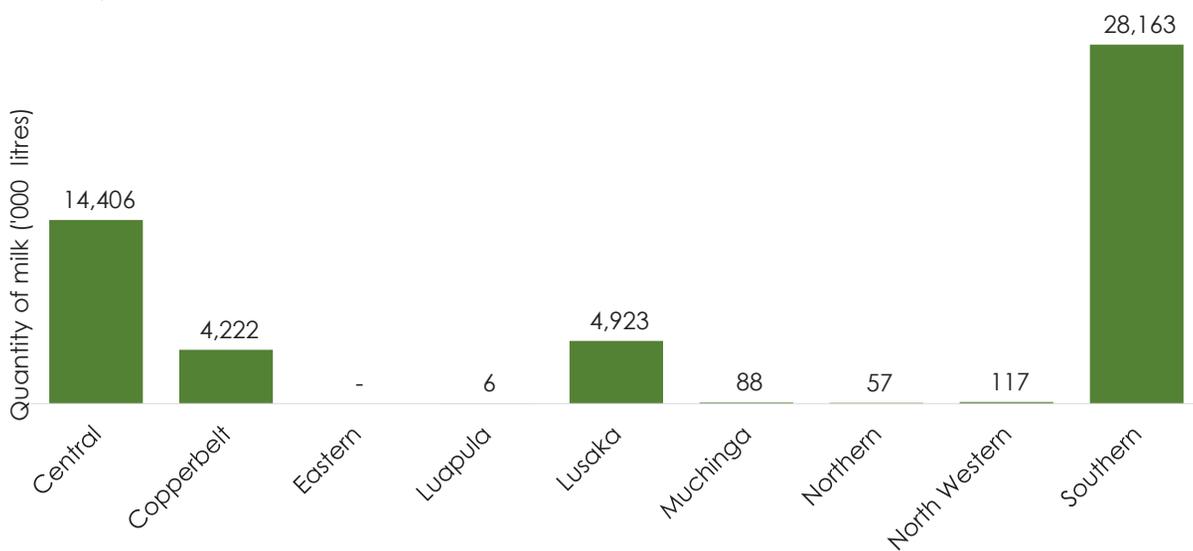
Figure 9.2: Monthly milk production from establishments (1st May 2021 to 30th April 2022)



Figure 9.3 shows the total milk produced by establishments. At national level, Southern Province accounted for the highest production at 28,163,384 liters followed by Central

Province at 14,405,835 liters. There were no establishments that reported milk production in Eastern Province.

Figure 9.3: Twelve Month Milk Production from Establishments by Province (31st May 2021 - 30th April 2022)



9.3 Total Milk Production from Households and Establishments

Total milk produced by both households and establishments between May 2021 and April, 2022 was 89,888,407 liters as indicated in Table 9.3. Southern Province reported the highest

production of 51,831,297 liters followed by Central Province at 18,248,776 liters. The lowest quantity was reported in Luapula Province at 128,456 liters.

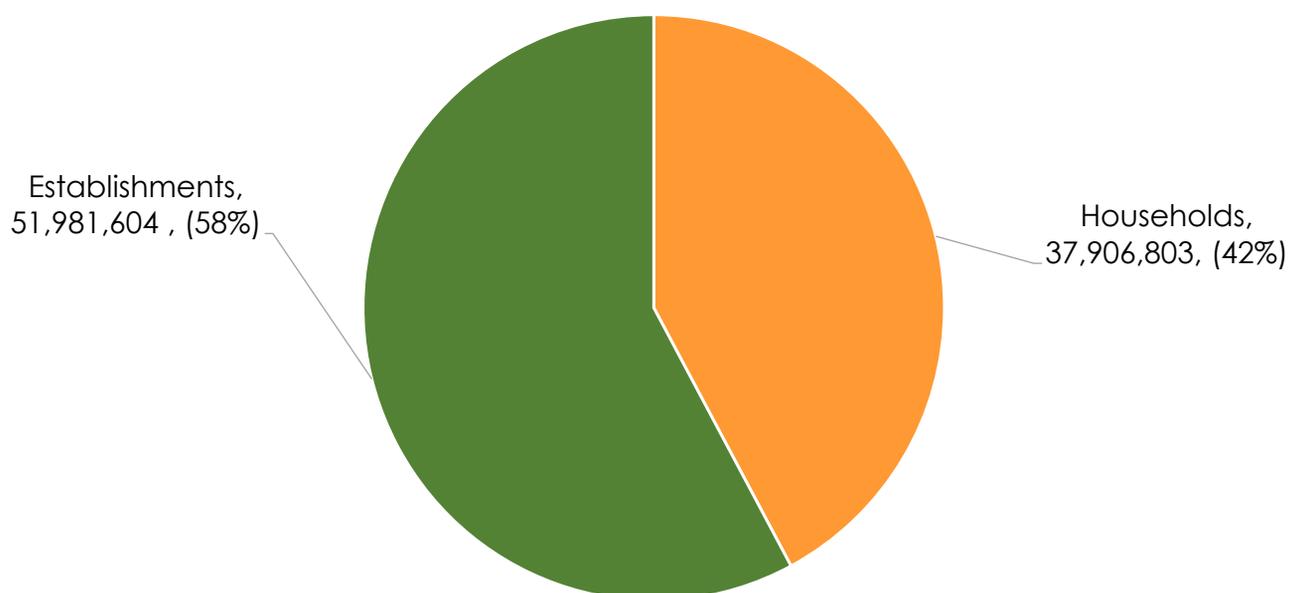
Table 9.3: Total Quantity of Milk Produced by Households and Establishments between May, 2021 and April, 2022

Province	Milk Production (Liters)		
	Households	Establishments	Total Milk Production
Central	3,842,942	14,405,835	18,248,776
Copperbelt	1,700,869	4,222,406	5,923,275
Eastern	4,475,434	-	4,475,434
Luapula	122,209	6,247	128,456
Lusaka	311,503	4,922,518	5,234,020
Muchinga	610,210	87,573	697,783
Northern	1,983,634	56,864	2,040,498
North-Western	213,882	116,777	330,659
Southern	23,667,913	28,163,384	51,831,297
Western	978,207	-	978,207
Zambia	37,906,803	51,981,604	89,888,407

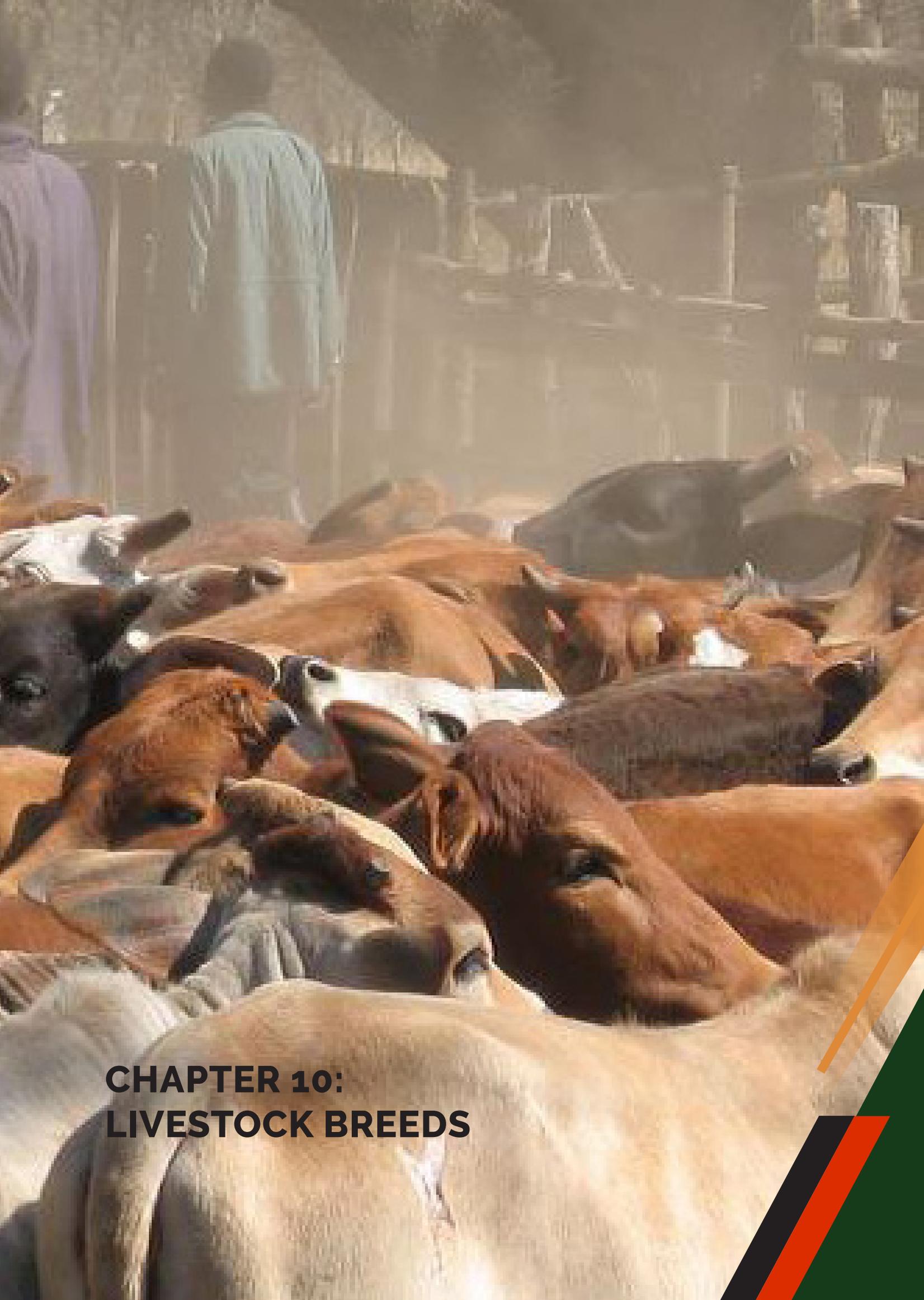
Figure 9.4 shows the contribution of households and establishments to the national total milk produced. Of the total milk produced,

establishments contributed 58% while the remaining 42% was contributed by households.

Figure 9.4: Milk Production (in Liters) from Households and Establishments, 1st May 2021 - 30th April, 2022







**CHAPTER 10:
LIVESTOCK BREEDS**



Chapter 10: Livestock Breeds

10.0 Introduction

This section presents results of breeds on cattle, goats, pigs and sheep which are the major livestock in Zambia.

304,950 households raised pure breed cattle while 134,451 raised mixed breeds.

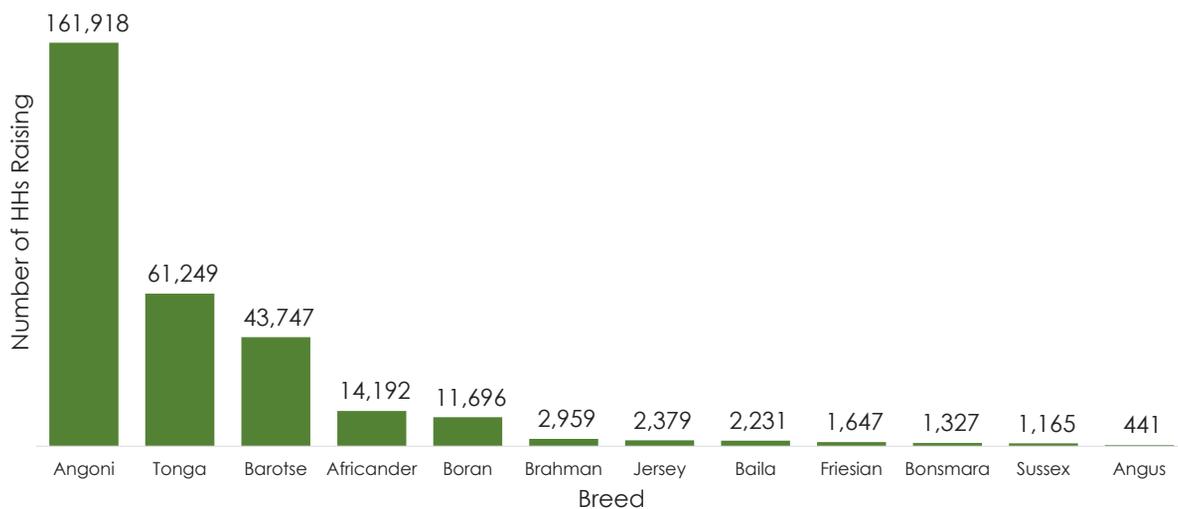
10.1. Cattle Breeds

10.1.1. Pure Cattle Breeds

Figures 10.1 and 10.2 below presents households raising pure cattle breeds. The survey revealed that 439,401 households raised various breeds of cattle. Of this number,

Out of 304,950 households raising pure breeds, 37.4% or 161,918 households raised Angoni while 61,249 households (14.2%) raised Tonga. An estimated 3.3% (43,747 households) raised Barotse and 2.4% (14,192 households) raised the Afrikander Breed.

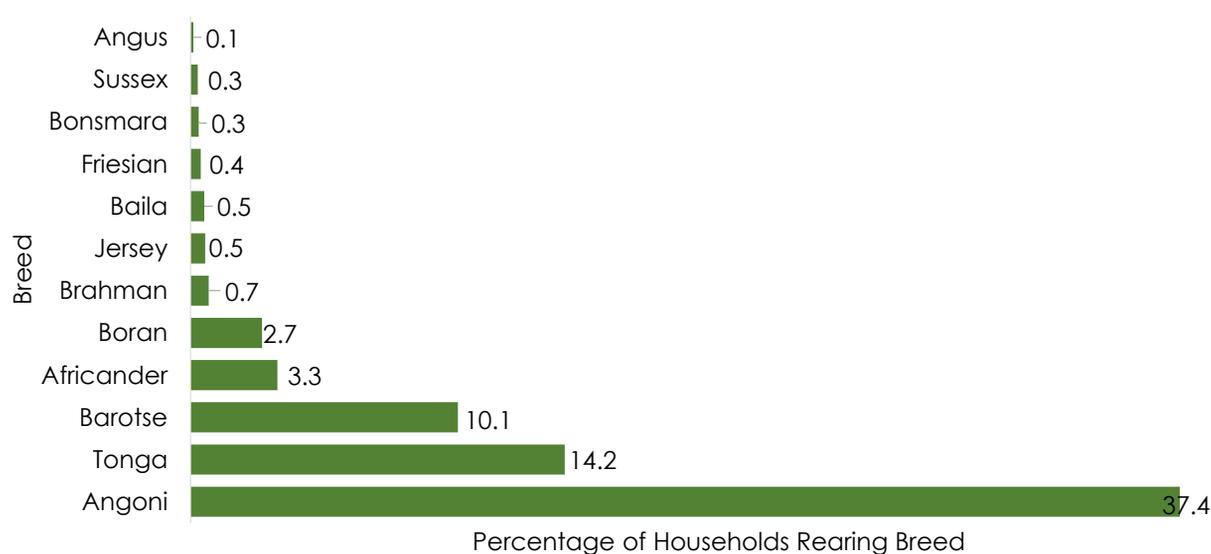
Figure 10.1: Households Raising Pure Cattle Breeds



Households raising Bonsmara, Sussex and Agnus breeds were the least recorded in the survey. A total of 1,327 households raised Bonsmara representing 0.3% of the total

households interviewed. Similarly, 1,165 households were reported to be raising Sussex at 0.3% with Agnus raising households recording a 0.1% of the total 304,950 households.

Figure 10.2: Percentage Distribution of Households Rearing Pure Breeds



The survey recorded a total of 439,401 households raising both pure breeds and mixed breeds of cattle. Table 10.1 highlights

both the number and percentage distribution of the households per breed type, for pure breed animals only.

Table 10.1: Number and Percentage of household raising Cattle pure breeds.

Breed	Households Raising	Percent
Angoni	161,918	37.4
Tonga	61,249	14.2
Barotse	43,747	10.1
Baila	2,231	0.5
Brahman	2,959	0.7
Boran	11,696	2.7
Jersey	2,379	0.5
Friesian	1,647	0.4
Africander	14,192	3.3
Angus	441	0.1
Bonsmara	1,327	0.3
Sussex	1,165	0.3
Total (excluding mixed Breeds, other breeds and Unknown breeds)	304,950	69



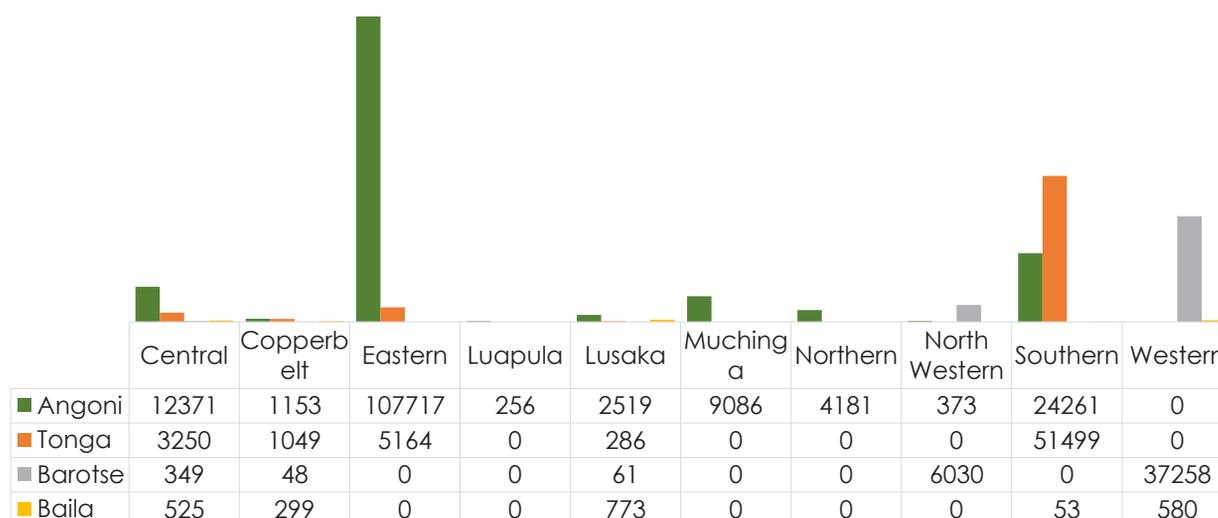
Eastern Province had the highest number of households keeping the Angoni breed at 107,717 households. This was followed by Tonga raising households in Southern Province recording

51,499 households. Western Province was the third highest with 37,258 households raising the Barotse breed (see Table 10.2 and Figure 10.3).

Table 10.2: Number and Percentage of Household raising Indigenous pure breeds

Province	Angoni	Tonga	Barotse	Baila
Central	12,371	3,250	349	525
Copperbelt	1,153	1,049	48	299
Eastern	107,717	5,164	0	0
Luapula	256	0	0	0
Lusaka	2,519	286	61	773
Muchinga	9,086	0	0	0
Northern	4,181	0	0	0
North Western	373	0	6,030	0
Southern	24,261	51,499	0	53
Western	0	0	37,258	580
Frequency/No. HHs	161,918	61,249	43,747	2,231
Percent	37.4	14.2	10.1	0.5

Figure 10.3: Pure Indigenous Cattle Breeds



10.1.2. Pure Exotic Cattle Breeds

Table 10.3 and Figure 10.4 show the distribution of pure exotic breeds by province. Eastern, Central and Lusaka Provinces recorded the highest number of households raising various types of exotic cattle breeds. There were 7,954 households in Eastern Province and 5,273 households in Central Province raising the

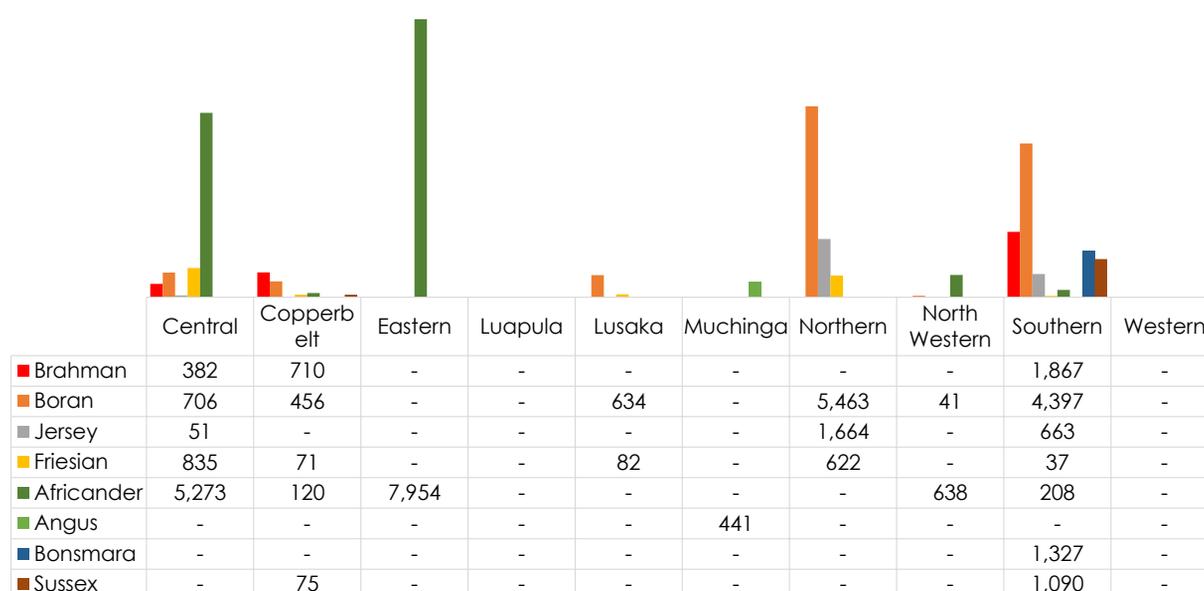
Afrikander Breed. A record of 1,867 households in Southern Province were reported to have been raising Brahman cattle.

Boran raising households were recorded as follows at 5,463 households in Northern Province, 4,397 households in Southern Province and 706 households in Central Province.

Table 10.3: Number and Percentage of Household raising Pure Exotic Cattle breeds, as at 30th April 2022

Province	Brahman	Boran	Jersey	Friesian	Africander	Angus	Bonsmara	Sussex
Central	382	706	51	835	5,273	0	0	0
Copperbelt	710	456	0	71	120	0	0	75
Eastern	0	0	0	0	7,954	0	0	0
Luapula	0	0	0	0	0	0	0	0
Lusaka	0	634	0	82	0	0	0	0
Muchinga	0	0	0	0	0	441	0	0
Northern	0	5,463	1,664	622	0	0	0	0
North Western	0	41	0	0	638	0	0	0
Southern	1,867	4,397	663	37	208	0	1,327	1,090
Western	0	0	0	0	0	0	0	0
No. HHs	2,959	11,696	2,379	1,647	14,192	441	1,327	1,165
Percent	0.7	2.7	0.5	0.4	3.3	0.1	0.3	0.3

Figure 10.4: Pure Exotic Cattle Breeds



10.1.3. Other Cattle Cross Breeds

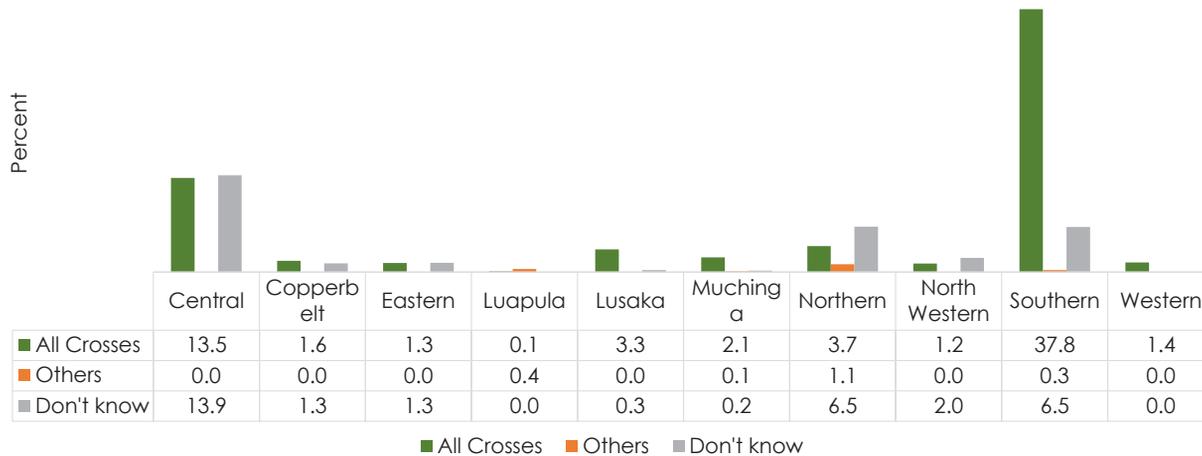
The distribution of cattle breeds in percentages, by province are provided in Figure 10.5. Southern Province reported the highest percentage of the number of households raising cross breeds at 37.8% followed by Central Province at 13.5% and Lusaka had 3.3%. Households reporting the lowest percentage was Luapula Province recording at 0.1%.

The provinces reporting the highest number of households that were keeping 'Other Cattle Cross Breeds' were Northern, Luapula, Southern and Muchinga that recorded 1.1%, 0.4%, 0.3% and 0.1%, respectively.

Of the Households that gave the "I don't Know" response regarding the cattle breeds that they were keeping, the largest proportion was from Central Province at 13.9%. This was followed by Northern and Southern Provinces at 6.5% each.



Figure 10.5: Percentage Distribution of Cattle Cross Breeds



10.2 Goat Breeds by Province

Table 10.4 and Figure 10.6 show the number and percentage distribution of goats by breed raised by households in provinces. At national level the number of households raising goats was 579,746. The most common raised goat breed was the Bantu breed which was raised

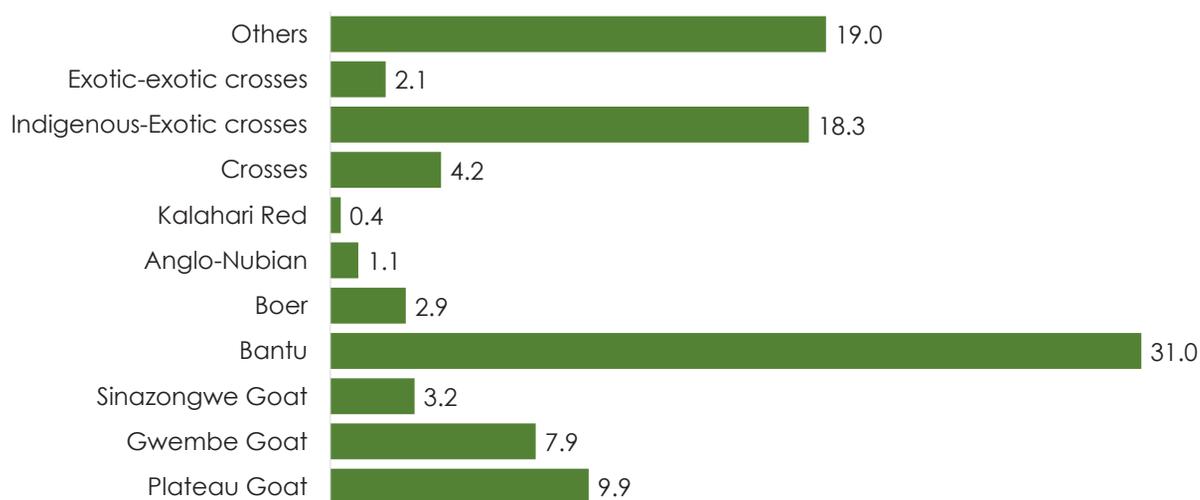
by 31% (179,905) of the national goat raising households. The least raised goat breed was the Kalahari Red breed which was raised by 2.6% (2,305) of the national goat raising households. Among the provinces, Muchinga had the highest number of households raising the Bantu breed at 40,595 of the national total that raised the Bantu breed.

Table 10.4: Goat breed distribution by Province, as at 30th April 2022

	Plateau Goat	Gwembe Goat	Sinazongwe Goat	Bantu	Boer	Anglo-Nubian	Kalahari Red	Crosses	Indigenous-Exotic crosses	Exotic-exotic crosses	Others	Total	Percent
Central	428	11,964	942	14,651	2,134	-	142	3,777	16,653	1,323	19,827	71,841	12.4
Copperbelt	1,803	1,913	310	4,467	2,897	457	-	916	4,511	377	4,566	22,217	3.8
Eastern	8,850	4,387	63	35,941	1,464	868	273	-	19,879	260	17,026	89,011	15.4
Luapula	1,020	-	-	33,850	362	-	-	1,195	103	-	3,783	40,313	7.0
Lusaka	786	1,698	594	466	1,788	-	-	3,039	6,993	779	1,688	17,831	3.1
Muchinga	-	-	-	40,595	-	-	-	2,237	366	-	1,502	44,700	7.7
Northern	3,941	143	-	18,835	613	1,281	-	1,359	14,352	2,171	19,015	61,710	10.6
North-western	1,773	120	-	1,438	443	3,555	501	2,509	13,396	533	9,409	33,677	5.8
Southern	28,996	21,314	15,661	29,529	4,604	66	622	9,156	26,729	5,936	30,889	173,502	29.9
Western	9,716	4,037	1,114	133	2,443	-	767	389	3,171	895	2,279	24,944	4.3
Total	57,313	45,576	18,684	179,905	16,748	6,227	2,305	24,577	106,153	12,274	109,984	579,746	100.0



Figure 10.6: Percentage Distribution Goat Breeds raised by Households as at 30th April, 2022



10.3 Sheep breeds by Province

Table 10.5 and Figure 10.7 show the number and percentage distribution of sheep by breed raised by households in provinces. At national level the number of households raising sheep was 27,292. The most common raised sheep

breed was the Fat Tailed which was raised by 20.0 % of the national sheep raising households followed by the Indigenous-Exotic Cross raised by 19.4 %. Southern Province had the highest number of households raising sheep at 13,488 while Western had the least at 39 households.

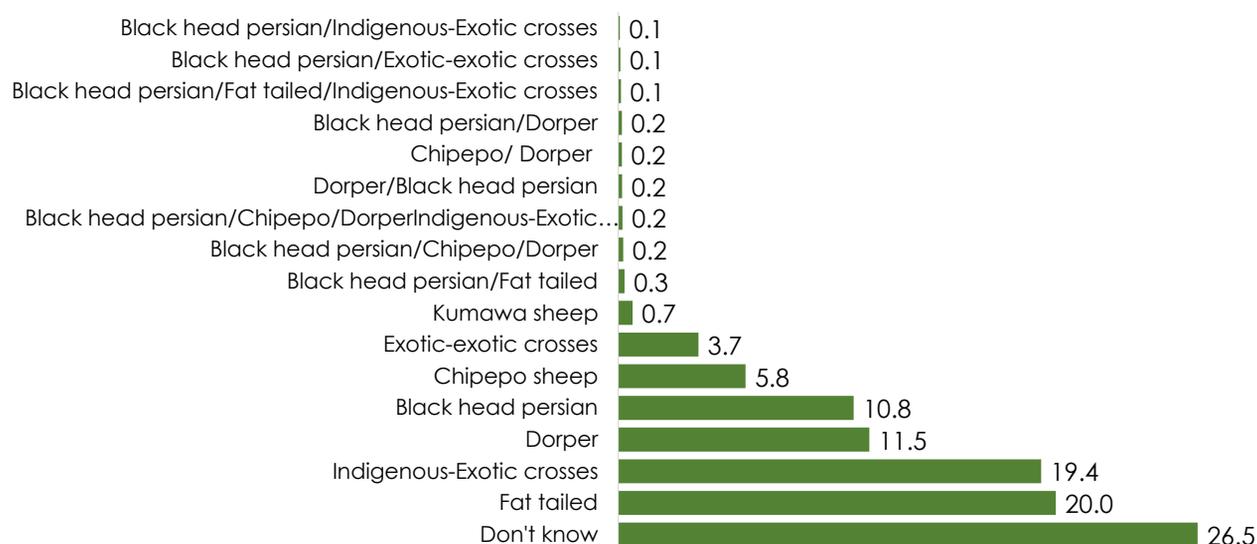
Table 10.5: Sheep breed distribution by Province, as at 30th April 2022

SHEEP BREEDS	PROVINCE									TOTAL	
	Central	Copper-belt	Eastern	Luapula	Lusaka	Northern	North-Western	Southern	Western	Number	Percent
Kumawa sheep	0	42	140	0	0	0	0	0	0	182	0.7
Chipepo sheep	669	0	77	0	22	0	0	826	0	1,594	5.8
Chipepo/ Dorper	0	0	0	0	0	0	0	48	0	48	0.2
Fat tailed	98	1600	569	128	22	0	0	3053	0	5,470	20
Dorper	248	712	0	377	52	82	30	1640	0	3,141	11.5
Dorper/Black head persian	0	0	0	0	51	0	0	0	0	51	0.2
Black head persian	535	0	252	103	19	91	405	1541	0	2,946	10.8
Black head persian/Chi-pepo/ Dorper	0	0	0	0	0	0	64	0	0	64	0.2
Black head persian/ Chi-pepo/Dorper/Indigenous-Exotic crosses/ Kumawa	55	0	0	0	0	0	0	0	0	55	0.2
Black head persian/Fat tailed	0	39	0	0	40	0	0	0	0	79	0.3
Black head persian/Fat tailed/ Indigenous-Exotic crosses	0	0	0	0	0	0	0	37	0	37	0.1

Table 10.5: Sheep breed distribution by Province, as at 30th April 2022

SHEEP BREEDS	PROVINCE									TOTAL	
	Central	Copper-belt	Eastern	Luapula	Lusaka	Northern	North-Western	Southern	Western	Number	Percent
Black head persian/Dorper	0	0	0	46	0	0	0	0	0	46	0.2
Black head persian/Indigenous- Exotic crosses	0	0	0	0	22	0	0	0	0	22	0.1
Black head persian/ Exotic-exotic crosses	0	0	0	0	0	0	0	30	0	30	0.1
Indigenous-Exotic crosses	1599	0	837	82	217	91	144	2279	39	5,288	19.4
Exotic-exotic crosses	76	47	0	0	132	0	41	708	0	1,004	3.7
Don't know	1,554	327	1,194	408	18	356	55	3,326	0	7,237	26.5
Zambia	4,834	2,767	3,069	1,144	595	620	739	13,488	39	27,292	100

Figure 10.7: Percentage distribution of Households by type of Sheep Raised as at 30th April, 2022



10.4. Pig Breeds by Province

Table 10.6 and Figure 10.8 shows the number of pigs by breed, raised by households in the ten provinces of Zambia. At national level the number of households raising pigs was 226,857. The most common raised pig breed was the Indigenous breed which was raised by 54.0% (122,395) of the national pig raising households. The least raised pig breed was the

Exotic-Exotic cross breeds which was raised by 3.1% of the national pig raising households.

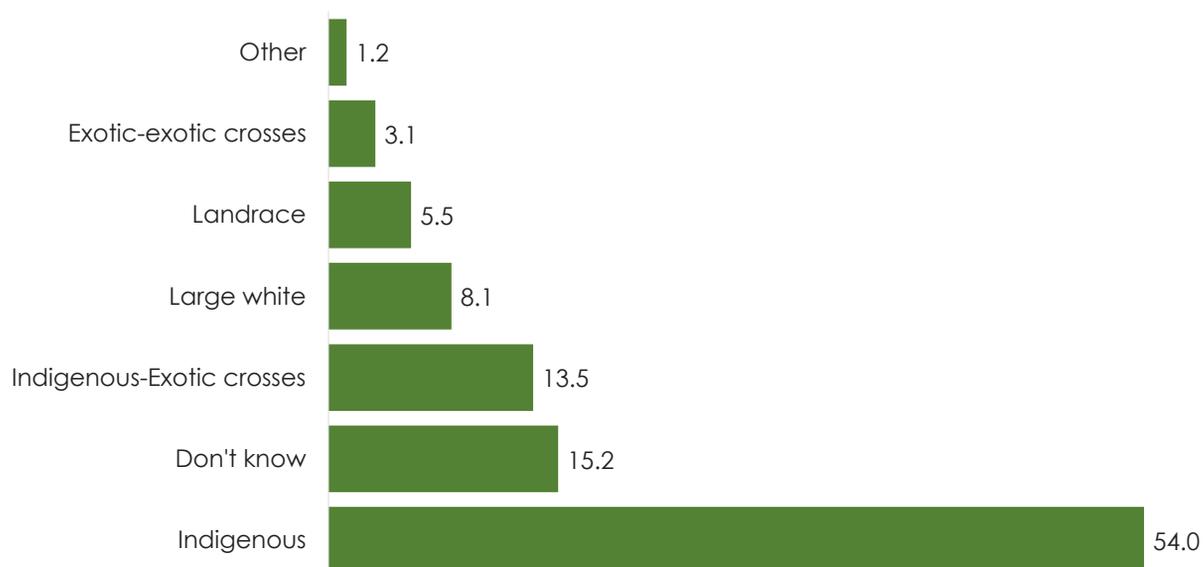
Within provinces Southern Province had the highest number of households raising Indigenous breed at 37,032, followed by Eastern Province at 34,100. Lusaka Province had the least number of households raising the Indigenous Pig breed at 771.



Table 10.6: Pig Breed Distribution by Province, as at 30th April 2022

Province	Pig breed type						TOTAL
	Large white	Landrace	Indigenous	Indigenous-Exotic crosses	Exotic-exotic crosses	Don't know	
Central	1,692	536	4,018	3,778	897	5,570	16,491
Copperbelt	3,164	2,916	1,616	784	404	1,547	10,431
Eastern	259	1,169	34,100	4,793	294	5,762	46,377
Luapula	231	-	4,814	648	160	939	6,792
Lusaka	376	126	771	908	229	116	2,526
Muchinga	2,362	128	15,037	544	-	1,893	19,964
Northern	2,198	5,277	11,119	3,737	240	6,959	29,530
North-Western	1,186	-	7,025	2,353	728	683	11,975
Southern	4,904	2,116	37,032	12,154	3,517	9,669	69,392
Western	2,102	148	6,863	2,465	568	1,233	13,379
Zambia	18,474	12,416	122,395	32,164	7,037	34,371	226,857
Percentage	8.1	5.5	54.0	14.2	3.1	15.2	100.0

Figure 10.8: Pig Breeds by Percentage Raised by Households





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