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NAMIBIA CENSUS OF AGRICULTURE 2013/2014

COMMERCIAL, LEASEHOLD AND RESETTLEMENT FARMS

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Preface

In 2014 the agriculture and forestry sector contributed 3.9 percent to the Gross Domestic Product (GDP) and employed 28.2 percent of the labour force. It is hence force essential for the NSA in collaboration with the Ministry of Agriculture, Water and Forestry conducted the Agricultural Census 2013/2014. The fieldwork for **communal sector census** which was a face-face interview conducted from 17 February 2014 until 30 June 2014. This was followed by the **commercial sector census**, which was a mail interview. The questionnaires were sent in September 2015 and the data collection period lasted for almost one year as it was a self-enumeration.

The census collected data on crop production, crop storage, livestock production, and fish farming. The census covered both the communal and commercial agricultural sectors and the results for communal sector were released on the 25th of November 2015. This specific publication presents the results of the commercial sector.

It is hoped that this report will be a tool to be used to provide new insights for planners, policy makers, researchers and others involved in the agricultural sector, in order to provide evidence based solutions to the challenges faced in the sector. It is important to note that the results are based on the 3 337 commercial farms that responded to the census out of 6 690 commercial farms.

On behalf of the Government of the Republic of Namibia, I wish to express my appreciation for the financial support provided by the development partners, in particular, the Food and Agriculture Organization (FAO) of the United Nations and the African Development Bank (AfDB).

I would also like to acknowledge the enormous efforts made by the planning team composed of professionals from the Namibia Statistics Agency and the Ministry of Agriculture, Water and Forestry (MAWF).

My gratitude also goes to Namibia Agricultural Union (NAU), Namibia National Farmers Union (NNFU) and all those who in one-way or the other contributed to the success of the census.

Finally, I would like to thank the responding farmers of Namibia for providing information to the NSA, without which this census would not have been possible. The results obtained in this census will give impetus to future planning, some Sustainable Development Goals (SDGs) indicators such as no poverty and zero hunger goals as well as for policy formulation.

ALEX SHIMUAFENI
STATISTICIAN-GENERAL & CEO

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Acronyms

AfDB	African Development Bank
CBS	Central Bureau of Statistics
CSPro	Census Survey Processing
DG	Director General
EA	Enumeration Area
FAO	Food Agriculture Organization
GIS	Geographic Information System
GRN	Government of the Republic of Namibia
SDGs	Sustainable Development Goals
NAD	Namibia Dollar
NPC	National Planning Commission
NSA	Namibia Statistics Agency
SG	Statistician-General
UN	United Nations
SPSS	Statistical Package for Social Sciences



Executive Summary:

Characteristics of Commercial farms (Section 2)

There were 3 337 commercial farms enumerated during the census out of 6 690 targeted commercial farms, with an average farm size of 3 640 hectares. Males own about 66 percent of the farms in Namibia. South Africans owed 40.0 percent of the farms that are mainly in //Karas region while the Germans owned only 4.3 percent of the farms that are located in Otjozondjupa region. The majority of farm owners, 70.4 percent reported that they farm on full-time basis while 18.4 percent of farm owners indicated that they farm on part time basis. About 95 percent of farm owners indicated that they are permanent residents in Namibia. About 61 percent of all farms in Namibia are commercial farms, followed by 27.2 percent resettlement farms. Less than one percent of farms in Namibia are reported as government farms.

Land Use (Section 3)

About 85 percent of farms reported that they operated land in the past 12 months. The majority of the farms, 74.7 percent, in Namibia use land for grazing. About 5 percent of farms used their land for permanent pasture and for wood or forest. A total of 9 348 269 hectares of land in Namibia is used for commercial farm land. About 7 800 966 hectares of land are used for grazing which constitute 83.5 percent of the total area of land used, while only 10 958 hectares (0.12%) of land are used for permanent crops. Farmers reported the highest average rainfall of 339 mm during the period November 2011 to October 2012, 194 mm during the period November 2012 to October 2013 and 307mm during the period November 2013 to October 2014.

Farm Land (Section 4)

The majority of the farms, 1 721 farms, are free hold farms and are owned by the farmers, followed by 729 state land farms and 106 leasehold farms. About 22 percent of all free hold farms are in Hardap and Otjozondjupa regions, while only 2.6 of all free hold farms are in Oshikoto region. The majority of the state land farms are in Hardap region, 23.8 percent, followed by Oshikoto, Kunene and Omaheke regions, 19.8, 12.9 and 11.6 percent, respectively.

About 33 percent of farmers reported that the type of soil cover is sandy, followed by sandy/clay, 18.9 percent and sandy/loamy, 13.7 percent. The results depicts that 82.6 percent of farmers reported that they did not experience soil erosion problems on their farms during the last 12 months.

Out of those farms that experienced soil erosion problems during the reference period, Hardap and Otjozondjupa regions were among the top with 26.1 percent and 22.7 percent, respectively, while in the regions of Khomas, Omaheke and Oshikoto farmers experienced the least erosion of 8.7 percent, 6.0 percent and 4.8 percent, respectively. About 36 percent of the farms in Namibia indicated that overgrazing is the main soil erosion problem, followed by no terracing, 23.8 percent. About 27 percent of the farmers in Otjozondjupa region reported that no terracing is the main problem of soil erosion. About 32 percent of the farmers in Hardap region reported that overgrazing is the main problem of soil erosion, while 18.4 percent of farmers in Kunene region reported deforestation as the main problem of soil erosion.

Drainage-Irrigation (Section 5)

Only 10.7 percent of farms reported that they drained or irrigated land during the past 12 months. Out of the total farm area, 54 242 577 hectares in Namibia, only 6 302 hectares of land were drained and 5 068 hectares were irrigated during the past 12 months.

More than 70 percent of farms in Namibia reported that they did not seek advice on water source, distribution system and delivery system for irrigation in the past 12 months. About 52 percent of farms reported that they seek advice on water source for irrigation from government. Furthermore, more than 40 percent of farms seek advice on distribution system and delivery system for irrigation from government and private agencies.

Agricultural Inputs and Extension Services (Section 6)

About 66 percent of farms reported that they used agricultural inputs for crops and/or livestock during the past 12 months. About 6 percent of farms in Namibia indicated to have used local seeds during the past 12 months, followed by improved seeds and insecticides with 4.0 percent of farms. Less than one percent of farms used Rodenticides and Other Pesticides during the past 12 months.

Most of the farms, 52 farms, obtained their inputs on local seeds by their own, while 25 farms reported that they obtained local seeds from the market. About 88 percent of farms reported that they used vaccines as a livestock input during the past 12 months. The results further shows that 75.7 percent of farms used lick supplements and 71.6 percent of farms used salt blocks as a livestock input during the past 12 months. Only 1.6 percent of farms used dip a livestock input during the past 12 months.

More than 21 percent of farms reported that they do not see the usefulness or it is too expensive to buy them. About 13 percent of farms indicated that they have no knowledge about crop/livestock inputs while 10.3 percent reported that crop/livestock inputs are not available.

About 69 percent of farms reported that they did not receive any agricultural extension services in the past 12 months. The results shows that 81.4 percent of farms reported that they received agricultural extension service on animal health, followed by 40.3 percent of farms that received services on farm management. The results further shows that 39.8 percent of farms indicated that they received agricultural extension service on lick supplementation while 23 percent received training as part of an agricultural extension service. More than 10 percent of farms reported that they received agricultural extension service on input use, credit service and farm mechanization, while more than 18 percent of farms reported that they received agricultural extension service on marketing and financial issues. Less than ten percent of farms reported that they received agricultural extension service on selection of crops and plant protection. Most farms, 464 farms, received agricultural extension services on animal health from government, followed by farm management, 204 farms, also from government. It also shows that 149 farms received agricultural extension services on animal health from private agencies and NGO's. More than 50 percent received agriculture extension services are affirmative action loan scheme and government farms.

Crop production and sales (Section 7)

More than 91 percent of farms reported that they did not plant any crops, grown any horticulture products or grow any fruits during the past 12 months. Among of the farms that reported that they planted crops, 30.4 percent are from Otjozondjupa region, while only 2.4 percent of farms from Khomas region indicated that they planted crops during the past 12 months compared to other regions. About 59 percent of farms reported that they planted white maize during the past 12 months, while less than 10 percent reported that they planted wheat, rice, sunflower, olives, sorghum, groundnuts and mahangu during the past 12 months. Approximately 4 378 hectares of irrigated land was used to plant white maize, yielding a harvest of 103 886 kg, 436 hectares of irrigated land was used to plant yellow maize, yielding a harvest of 31 732 kg. Furthermore, 1 732 hectares of irrigated land was used to plant fodder, yielding a harvest of 16 532 kg.

More than 40 percent of farms reported that they grew watermelons, cabbage and carrots during the past 12 months. Approximately 99 hectares of irrigated land was used to plant onions, yielding a harvest of 807 048 kg. It also shows that 1 131 hectares of irrigated land was used to plant tomatoes, yielding a harvest of 313 936 kg. Furthermore, 70 hectares of irrigated land was used to plant watermelons, yielding a harvest of 346 917 kg of which 245 917 kg was sold.

More that 40 percent of farmers reported that crops, horticulture products and fruits were damage by pests and diseases during the past 12 months. The results shows that about 30 percent of farms reported that no control measures was used to protect crops from pests and diseases, while 21.8 percent of farms indicated that no extension agent help was available to protect crops from pests and diseases.

Access to Credit/Loan (Section 8)

The results show that 23.9 percent of farm owners applied for loan and 94.2 percent of farm owners received the loan. About 23 percent of the farm owners in Hardap region applied for loan, followed by //Karas region with 19.7 percent of farms, while 1.6 percent of farm owners in Oshikoto applied for loan compared to other regions. More than 49 percent of farm owners received loans or credit from Agribank and commercial banks, while less than 1 percent of farm owners received loans or credit from input suppliers, government, SME bank, Development bank of Namibia and micro financing institutions.

About 62 percent of farm owners revealed that the main purpose of the loan or credit was to procure livestock, followed by 22.5 percent of farm owners that reported that they use the loan to build infrastructure on their farms. About 20 percent of farm owners used their farms as collateral when applying for their loans or credit in the past 12 months.

The results show that 22.7 percent of farmers indicated that the main reason why the loan was not approved is due to lack of collateral security, 4.5 percent due to ignorance and 2.3 percent due to bad financial credibility.

Labour Inputs (Section 9)

The results revealed that a total of 14 990 workers, comprising of 8 975 permanent workers, 2 621 temporary workers and 1 122 contract workers were employed by farm owners on their farms during the past 12 months. Furthermore, 2 272 unpaid household members were also employed by farm owners during the reference period. The largest workforce were farm labourers which constitute 7 451 permanent workers, 2 807 temporary workers and 1 121 contract workers.

Farm Buildings and Other Structures (Section 10)

About 41 percent of farm owners reported that they have storage facilities on their farms. Among those regions who indicated that they have storage facilities on their farms, 22.8 percent of farms in Otjozondjupa region reported that they have storage facilities compared to other regions. Farms in Erongo region has the least percent of storage facilities, 6.1 percent. The results shows that 62.8 percent of farm owners indicated that they have buildings on their farms.

Machinery and Equipment (Section 11)

The results shows that more than 50 percent of farms used axes, wheelbarrows and spades on their farm during the past 12 months. More than 80 percent of farm owners solely owned axes, slashers, pangas, water cans, wheelbarrows, pruning knives, spades, ox ploughs, trailers, feeders, planters and sprayers used during the past 12 months.

More than 80 percent of farm owners reported that Sheller, Harrow or Cultivators used on their farms are owned by other private owners. About 71 percent of pruning saws and ox ploughs is owned by other private owners.

Most farmers, more than 40 percent, reported that hoes, axes, slashers, pangas and spades are 1-4 years old, while more than 40 percent indicated that tractors, combined harvester, plough, trailer, harrow cultivator, weeders and planters are more than 10 years old.

More than 50 percent of farms used livestock machinery such as branding iron, vaccinator gun, needles, castration ring applicators, ear tag applier, wirepuller and crowbars during the past 12 months.

More than 80 percent of the farm owners reported that they solely owned Burdizzo (Castraring pliers), Branding iron, Vaccinator gun, Weighing scales, Dehorning saw, Dehorning bolt, Gates, Livestock feed grinder (mill), Animal first aid box, Noose plier, Scissors for nails, Scissors for wool, Mobile load bank, Fixed load bank and Mangas used in the past 12 months.

More than 50 percent of farm owners reported that most livestock machinery or equipment are owned by other private owners. About 71 percent of pruning saws and ox ploughs is owned by other private owners.

About 44 percent of farm owners reported that their mangas are 1-4 years old, while more 50 percent of farm owners indicated that gates, livestock feed grinder, neck scissors and mobile load banks are more than 10 years old.

Livestock and Poultry (Section 12)

The results shows that 76.6 percent of farmers reported that they rear livestock and or poultry on their farms. Among the regions, 25 percent of farmers in Hardap region rear livestock and or poultry on their farms compared to other regions. Less than 10 percent of farms in Erongo, Khomas, Kunene and Oshikoto rear livestock and or poultry on their farms. About 33 percent of farmers reported that they rear Brahman cattle on their farm, followed by Bonsmara with 24.7 percent and Simentaler, 21.3 percent. About a quarter (24.5%) of the total number of cattle reared or kept was marketed during the past 12 months. Close 50 percent of Simentalers kept were marketed, while 6.3 percent of Bown Swiss kept by farmers were marketed during the past 12 months.

About a quarter (23.1%) of the total number of goats reared or kept was marketed during the past 12 months. About 24 percent of Boerbok goats kept were marketed, while 14.6 percent of Savanna goats kept by farmers were marketed during the past 12 months.

Slightly more than half (50.5%) of the total number of sheep reared or kept was marketed during the past 12 months. About 61 percent of Dorper sheep kept were marketed, while 10.1 percent of Swakara sheep kept by farmers were marketed during the past 12 months.

About 29 percent of farms reared indigenous chickens on their farms, while less than 1 percent of farms reared guinea fowl and peacocks during the past 12 months. Only 4.8 percent of poultry reared by farmers were sold during the past 12 months. About 10 percent of ducks were sold, while only 1.2 percent of pigeons reared by farmers were sold during the past 12 months.

About 49 percent of farms reported that dogs were reared on their farms, followed by horses, 40.6 percent of farms and donkeys, 29 percent of farms.

The total number of horses reared on farms in Namibia was 7 144 of which 173 were sold during the past 12 months. About 5 000 donkeys were reared on farms in Namibia of which 256 were sold during the reference period.

Aquaculture, Forestry, Beekeeping/Apiculture and Agro-processing and Marketing (Section 13)

The results shows that only 0.1 percent of farms engaged in fish farming. Furthermore, 20.4 percent of farms reported that there is a forest on their farms and only 0.7 percent indicated that they undertake beekeeping practices on their farms.



Section 1: Introduction

1.1 Background

This publication presents the results of the 2013/2014 Namibia Census of Agriculture (NCA 2013/14), in particular the Private commercial, Resettlement Farms, affirmative Action Loan Scheme Farms and Government Farms. This is the third Agricultural Census to be conducted after independence. The 1994/1995 Census was the first Agricultural Census taken after independence. The 2004/2005 Agricultural Census was planned and carried out but results could not be published due to technical issues.

The Census of Agriculture 2013/2014 used the modular approach thus strictly following the guidelines of the World Programme for the Census of Agriculture 2010 (WCA 2010). The aim of the WCA 2010 is to assist countries to meet the need for a wider range of data from the agricultural census, while minimizing the cost of census taking.

Despite its marginal contribution to Gross Domestic Product (GDP), the agriculture sector in Namibia remains central to the lives of the majority of the population. Directly or indirectly, it supports the majority of the country's population.

The sector can be divided into two distinct sub-sectors: the capital intensive, relatively well developed and export oriented subsector (Commercial); and the subsistence-based, high labour and low technology sub-sector (Communal).

The commercial agricultural sector covers large farms, which concentrate on both livestock and crop production for commercial purposes. There is a possibility that some subsistence farmers may have converted themselves to commercial farming activities but the numbers are unknown and may still be small. The Government of the Republic of Namibia is running a resettlement program where commercial farms are being bought for resettlement purposes. These resettlement farms may contain small-scale commercial farming activities and /or subsistence farming activities.

1.2 Objectives

The immediate objective of the NCA 2013/2014 was to obtain baseline agricultural production and structural variables for the commercial and communal farming sectors at national and regional levels. The long-term objective of the NCA was to provide data and statistics to improve planning and decision-making in the agriculture industry and satisfy the information needs of the socio-economic database being set up by the Namibia Statistics Agency (NSA).

Specifically, the NCA 2013/2014 sought to:

a) Provide up-to-date and more reliable data on the numbers of agricultural holdings, land areas, crop production, livestock numbers, land tenure, land utilization, fertilizer usage, agro-chemicals, use of farm implements and machinery, farm population and labour force;

b) Provide detailed agricultural data such as number of holdings, total area of holdings, basic pattern of land utilization, area under crops and extent of irrigation;

c) Provide a sampling frame for subsequent agricultural surveys and other sample surveys on agricultural holdings; and

d) Provide data for estimating future trends/changes in agricultural behaviour through statistical projection models.

1.3 Methodology

Target population

The population for the NCA 2013/2014 was made up of all the farmers in the commercial agricultural sector. Commercial farms in the commercial agricultural sector are operated and managed by farmers who use modern methods for their production activities and because of the commercial nature of their activities they can be identified. All such commercial farms together with the leasehold and resettlement farms were considered as the target for this census. Based on this definition the up and coming farmers (if any) in the communal areas who produce for commercial purposes were excluded from the census.

Caution should be taken when comparing the number of farms enumerated during the 1994/1995 Namibia Agricultural Census with the 2013/2014 Census due to the following reasons:

1. In the 1994/1995 Census, the regions of Zambezi, then Caprivi region and Kavango East and Kavango West, then Kavango region were excluded from the analysis, because all farms in these regions were regarded as communal farms, however they are now part of the 2013/2014 census;
2. The Government of the Republic of Namibia has bought commercial farms and convert them to communal farms where people are resettled. These farms that were bought were included in the past census and may not be part of the commercial sector anymore. However, would have been covered as part of the communal sector census.

The frame of farmers (List of Farms)

All commercial farms are registered with the Ministry of Land Reform. A list of 12 426 farms was obtained from the Ministry to serve as a master list for enumeration of commercial farms. However, the following challenges were encountered with the list:

1. The list included farms not engaged in agricultural activities
2. The list contain residential houses, churches, commercial plots, such as Namwater, etc.
3. Lack of contact details for some of the farms (e.g. postal addresses, unknown addresses as well as telephone numbers).
4. Duplication of farms

After a tedious cleaning process of the list received from the Deeds Office, a final list of 7 861 which is made up of 6 914 commercial farms and 947 resettlement farms was created. This was the list that formed the frame for which the questionnaire to collect data on commercial farming activities was send. On completion of the questionnaires, a total of 1 171 farmers indicated that they were not carrying out any agricultural activities on their farm and hence they were excluded from the enumerated farms.

Therefore the final actual number of farms enumerated for the census was reduced to 6 690 farms.

Data collection and capturing

Data collection and capturing carried out during the NCA 2013/2014 was done following international best practices. The collection of data for the commercial sector census was self-administered whereby the questionnaires were send through the post from September 2015 to February 2016 (thus a postal enquiry was conducted). A temporary staff complement of ten were employed during this period to assist with dispatching of questionnaires and make the necessary follow ups. In order to encourage farmers to fill the questionnaires, a concerted publicity was undertaken using media outlets, Namibia Agricultural Union (NAU) and Namibia National Farmers Union (NNFU). In addition, face to face interview was conducted primarily for resettlement farmers and in the case of non-responding farms to reduce the overall non response. The processing of the data was organized into three major phases namely:

- Data entry application design using CSPro 5.0;
- Data editing and data cleaning using SPSS 25 and CSPro 5.0;
- Tabulation (summary tables) using SPSS 25 and Excel

These phases were carried out over a nine-month period, of which the designing of tabulation programs, and the generation, verification and correction of tables lasted for about three months.

Procedures

A technical subject-matter planning team, consisting of staff members from NSA and MAWF was established to guide the entire census undertaking from planning to implementation and dissemination. A two day user-producer workshop with various stakeholders was conducted where the draft questionnaire; structure of the census; census methodology; concepts and definitions; and the activity plan were discussed and agreed upon. The census strictly followed the recommendations from the 2010 Round of the World Census of Agriculture (WCA) document of the FAO.

In October 2015, a one week intensive training for field enumerators and team supervisors was conducted to enumerate a total of 947 resettlement farms. The field staff comprised of sixteen temporary staff and seven staff from NNFU. Eight teams comprising of one enumerator assigned to one supervisor were dispatched to enumerate resettlement farms in seven regions namely; //Karas, Hardap, Kunene, Omaheke, Otjozondjupa, Erongo and Oshikoto. Each team was allocated a region except for Hardap region which was enumerated by two teams due to a high number of resettlement farms. The monitoring team consisting of permanent staff and management from the NSA was also dispatched to ensure that field work was being properly executed.

Response Rate

The response rate represent the proportion (expressed in percentage) of the commercial farms who have responded to the census questionnaires out of the targeted population of commercial farms. The response rate (RR) is calculated using the following equation:

$$RR = \frac{Responding\ farms}{Total\ farms} * 100$$

A total of 3 337 commercial farms responded by completing the questionnaire, while resettlement farms where interviewed. This translate into the total response rate for commercial farms of 49.9 percent, with the resettlement farms accounting for a response rate of 95.8 percent.

Data Cleaning and Validation

In general, data cleaning deals with detecting and removing errors and inconsistencies from data in order to improve its quality and increase the estimation power. Data quality problems are present in single data collections, such as files and databases due to misspellings during data entry, missing information or other invalid data.

The census generates two master data files. The first file, the "raw" data file, presented the data as collected and entered by Data Processing Division (DP) which subjected raw data to primary validation. The process entails checking the data for high-level internal coherence across questions, identification of fatal flaws in the collected data compared with what was intended from the questionnaire as well as erroneous data entry. An error list was produced and errors in the data file corrected by checking the questionnaires manually and create computational edit rules. The first data file was further restructured to enable data analysis of multiple responses.

A copy is then made from the 'first master file' by DP as a second master file (Master Raw Data File). This is then subjected to secondary data cleaning and validations using sets of computer algorithms and visual checks by various subject matter staff and experts. Further structural stability of the data sets, identification of invalid entries and determining of the data points that should be subjected to editing was carried out using SPSS.

In addition, detecting of outliers was also carried out. In the present context, the term outlier was used to denote an observation that appears to be 'much' different from neighbouring observations.

Although missing values were detected, no imputation was made, since no relevant data from neighbouring variables were found.

Financial and technical support

The NCA 2013/14 was primarily funded by the Government of Namibia. In addition, the FAO provided technical assistance through the Technical Cooperation Programme (TCP/NAM/3402) while the African Development Bank (AfDB) provided funds through the Statistics Capacity Building (SCB) Program.

Presentation of results

The results are presented in terms of total numbers, averages and percentages of the different estimates and the report is structured into 13 Sections. These are:

Section 2: Characteristics of Commercial farms

Section 3: Land Use

Section 4: Farm Land

Section 5: Drainage-Irrigation

Section 6: Agricultural Inputs and Extension Services

Section 7: Crop production and sales

Section 8: Access to Credit/Loan

Section 9: Labour Inputs

Section 10: Farm Buildings and Other Structures

Section 11: Machinery and Equipment

Section 12: Livestock and Poultry

Section 13: Aquaculture, Forestry, Beekeeping/Apiculture and Agro-processing and Marketing

Limitations and Recommendations

This commercial sector census faced challenges especially with respect to the frame as there was no comprehensive list of commercial farms available with all the required variables such as contact details. Thus, follow-up of non-response was limited to media and it was difficult to increase response rate. It is recommended in future that;

1. A module be included in the Population and Housing Census to obtain information for a frame with all requires variables
2. Resettlement farms be enumerated face-to-face as they found it difficult to complete questionnaires on their own.
3. The design of the questionnaire be simplified and an option be given to farmers who wishes to fill in an electronic form.
4. The National Statistical System (NSS) be strengthened in the agricultural sector to increase response rates.



Section 2: Characteristics of Commercial Farms

For the purpose of this report, commercial farms consists of Private commercial farms, Resettlement Farms, Affirmative Action Loan Scheme Farms and Government Farms. The list of farms provided from the Deeds Office did not include regions such as Kavango East, Kavango West, Ohangwena, Omusati, Oshana and Zambezi region, since most of the farming activities are regarded as communal. Table 1 represent the total number of commercial farms by region. The majority of the commercial farms, 25.2 percent are located in Hardap region, followed by Otjozondjupa with 18.9 percent. Only 5.7 percent of commercial farms are located in Erongo region.

Table 2.1: Distribution of farms by region

Region	Number	Percent
//Karas	466	14.0
Erongo	190	5.7
Hardap	841	25.2
Khomas	305	9.1
Kunene	283	8.5
Omaheke	378	11.3
Oshikoto	243	7.3
Otjozondjupa	631	18.9
Total	**3 337**	**100.0**

Table 2.1 shows that the average size of commercial farms in Namibia is reported to be 3 640 hectares. //Karas region reported the largest farms on average, measuring 6 091 hectares, while the smallest farms were reported in Oshikoto region, measuring on average 1 132 hectares.

Table 2.2: Average farm size by region

Region	Farm Size (Hectares)
	Average
//Karas	6 091
Erongo	4 558
Hardap	3 114
Khomas	3 829
Kunene	3 325
Omaheke	3 531
Oshikoto	1 132
Otjozondjupa	3 327
Namibia	**3 640**

Demographic Characteristics of Farm Owners

Figure 1 depicts the sex composition of the farm owners and it reveals that 66.2 percent of the farms in Namibia are owned by males as opposed to 20.3 percent who are owned by females.

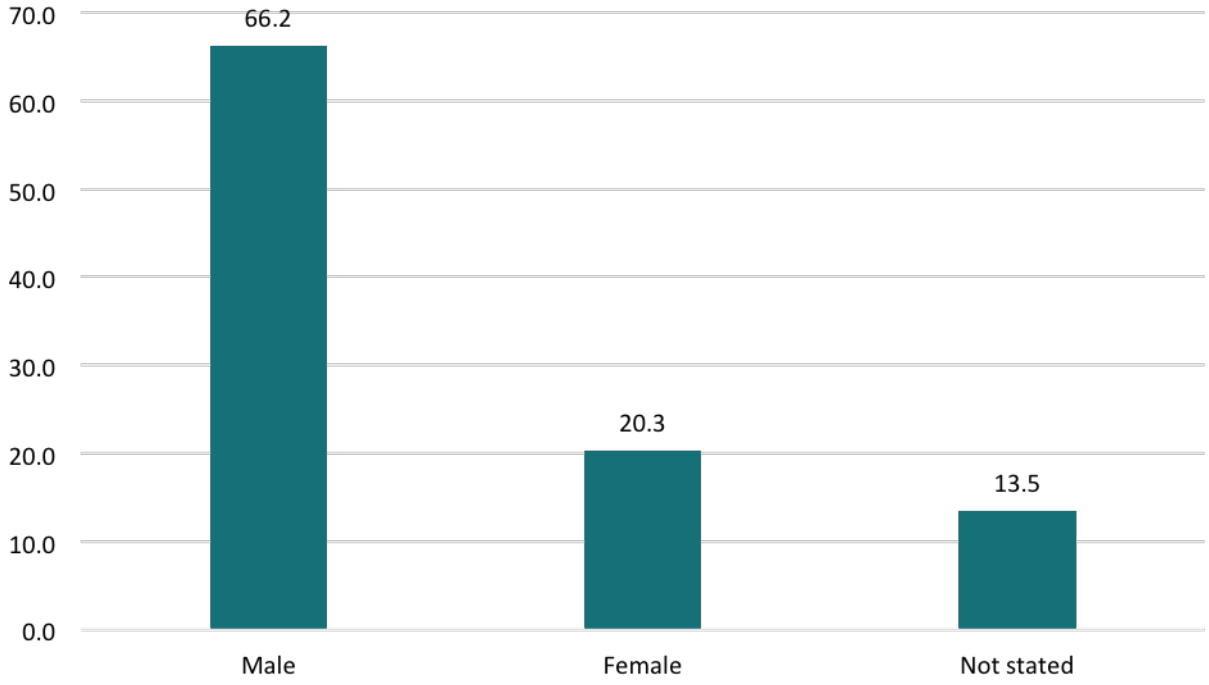


Figure 2.1: Farm owners by sex

Table 2.3 present the distribution of farm owners by sex and region. The result shows that 26.2 percent of the farm owners are from Hardap region, while only 5.2 percent are from Erongo region. Among female farm owners, 28.0 percent are from Hardap region, while 4.7 percent of females own farms that are in Erongo region. The same pattern can be observed among the male farm owners. It is worth noting that more females (28.0%) compared to males (26.2%) owns farms in the Hardap region.

Table 2.3: Farm owners by sex and region

Region	Sex of Farm owners					
	Male		Female		Total	
	Number	%	Number	%	Number	%
//Karas	328	14.8	76	11.2	404	14.0
Erongo	117	5.3	32	4.7	149	5.2
Hardap	578	26.2	190	28.0	768	26.6
Khomas	200	9.1	58	8.5	258	8.9
Kunene	182	8.2	65	9.6	247	8.6
Omaheke	240	10.9	80	11.8	320	11.1
Oshikoto	160	7.2	68	10.0	228	7.9
Otjozondjupa	404	18.3	110	16.2	514	17.8
Total	**2 209**	**100.0**	**679**	**100.0**	**2 888**	**100.0**

Figure 2.2 presents the farms ownership by nationality. The majority of the farm owners (88.0 percent) are Namibians, followed by Germans owning about 1.4 percent of the farms. Less than one percent of the commercial farm owners are South Africans.

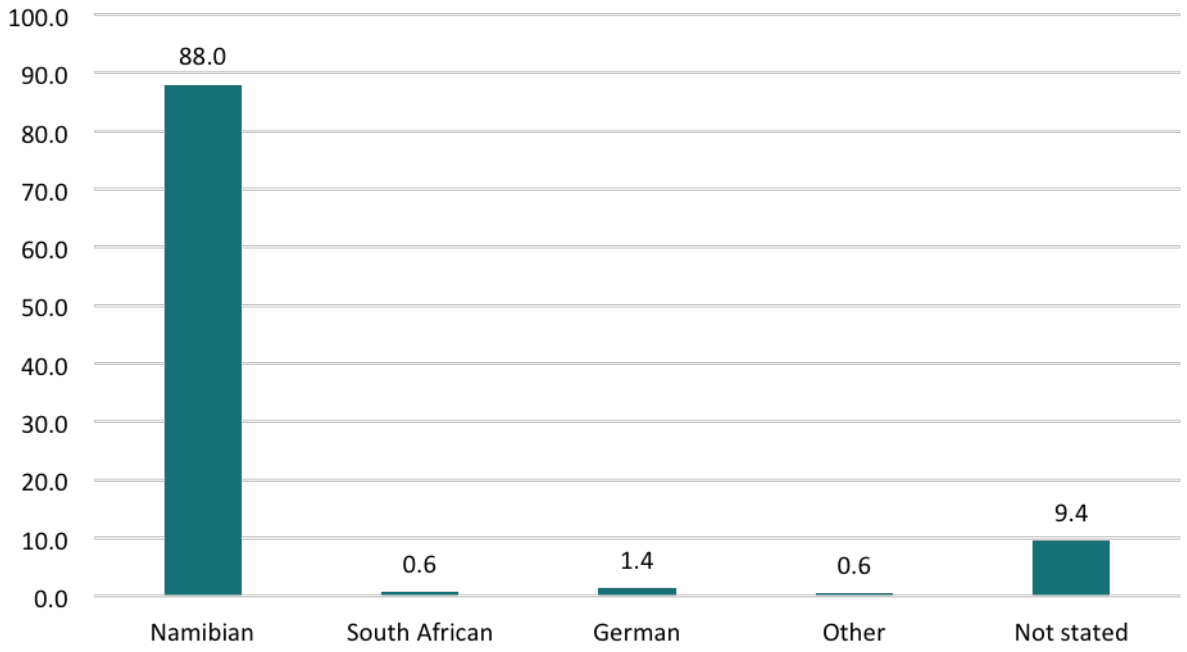


Figure 2.2: Farm owners by nationality

The distribution of farm owners by nationality and region presented in Table 2.4 shows that the highest percent (25.9%) of the Namibians owns commercial farms were in the Hardap region. Similarly, the highest proportion (40%) of South Africans owned farms were in //Karas region while those farms owned by most Germans were recorded in Otjozondjupa region (29.8%).

About 31 percent of the farm owners that reported other nationality in //Karas region were nationals from Belgium, Switzerland, Austria, Dutch, Britain and France.

Table 2.4: Farm owners by nationality and region

Region	Nationality				
	Namibian	South African	German	Other	Total
	%	%	%	%	%
//Karas	13.8	40.0	4.3	31.6	14.0
Erongo	5.3	5.0	21.3	21.1	5.7
Hardap	25.9	25.0	4.3	10.5	25.4
Khomas	9.3	10.0	19.1	10.5	9.4
Kunene	8.5	5.0	19.1	15.8	8.7
Omaheke	11.3	0.0	2.1	0.0	11.0
Oshikoto	7.3	0.0	0.0	0.0	7.1
Otjozondjupa	18.6	15.0	29.8	10.5	18.7
Total	**13.8**	**40.0**	**4.3**	**31.6**	**14.0**

With respect to the mode of farming, Figure 2.3 shows that the majority of farm owners, 70.4 percent reported farming on a full-time basis while 18.4 percent farm on a part time basis.

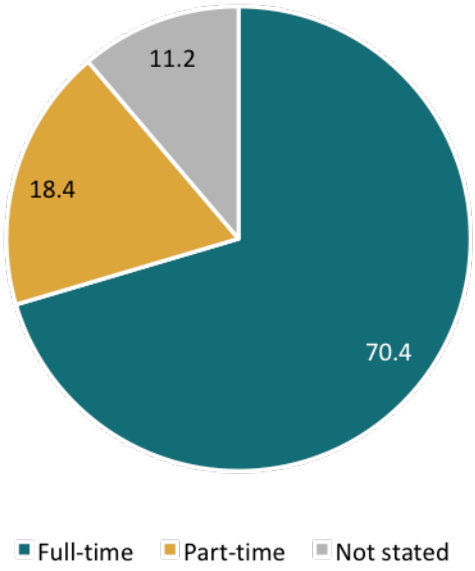


Figure 2.3: Farm owners by mode of farming

Similarly, mode of farming at regional level presented in Table 2.5 shows that 23.7 percent of the farm owners in Hardap region are farming on a part-time basis, while 4.7 percent farms on a part-time basis in Kunene region. The same pattern is observed among the farmers who farms on a full-time basis, except for Erongo region that reported the lowest percentage (4.6%) of full-time farmers.

Table 2.5: Farm owners by mode of farming and region

Region	Mode of farming		
	Full-time	Part-time	Total
	%	%	%
//Karas	15.1	13.1	14.6
Erongo	4.6	9.6	5.6
Hardap	25.1	23.7	24.8
Khomas	8.9	10.3	9.1
Kunene	9.6	4.7	8.6
Omaheke	11.5	10.9	11.4
Oshikoto	6.6	11.3	7.6
Otjozondjupa	18.6	16.5	18.2
Total	**100.0**	**100.0**	**100.0**

About 95 percent of farm owners indicated that they are permanent residents in Namibia (Figure 2.4). Only 1.7 percent of farm owners indicated that they do not have permanent residence in Namibia.

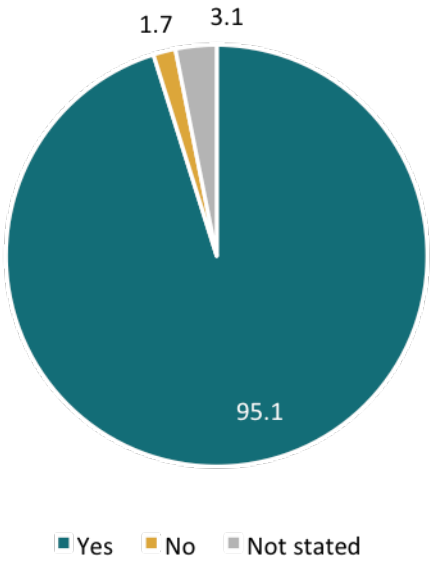


Figure 2.4: Farm owners by permanent residence in Namibia

Table 2.6 shows that out of the South Africans who do not have permanent residence in Namibia, 52.2 percent are farming in the //Karas region, followed by 21.7 percent farming in Hardap region and 17.4 percent are farming in Otjozondjupa region. Similarly, with respect to the Germans who do not have permanent residence in Namibia, 35.0 percent own farms in Erongo region, followed by 30.0 and 20.0 percent who own farms in Kunene and Khomas region, respectively.

Table 2.6: Farm owners by other residence in Namibia and region

Region	Other Residence			
	South African	German	Other	Total
	%	%	%	%
//Karas	52.2	0.0	14.3	26.0
Erongo	4.3	35.0	14.3	18.0
Hardap	21.7	5.0	0.0	12.0
Khomas	4.3	20.0	28.6	14.0
Kunene	0.0	30.0	0.0	12.0
Otjozondjupa	17.4	10.0	42.9	18.0
Total	**100.0**	**100.0**	**100.0**	**100.0**

Figure 2.5 presenting the distribution of farm owners by the type of farm shows that 61.9 percent of all farms in Namibia are private commercial farms, followed by 27.2 percent resettlement farms and 2.3 percent of affirmative action loan schemes. Less than one percent of farms in Namibia are reported as government farms.

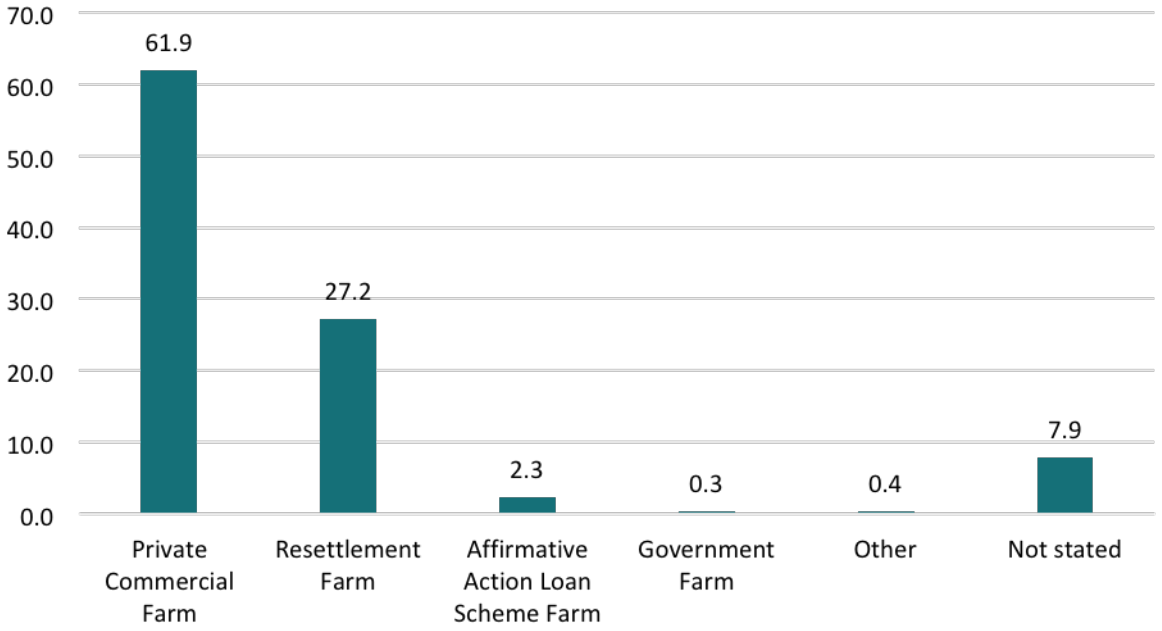


Figure 2.5: Farm owners by type of farm

Table 2.7 reveals that the majority of private commercial farms, 24.4 percent, are in Hardap region, followed by Otjozondjupa region with 21.8 percent. Only 2.9 percent of commercial farms in Namibia are in Oshikoto region.

Table 2.7: Farm owners by type of farm and region

Region	Type of Farm											
	Private Commercial Farm		Resettlement Farm		Affirmative Action Loan Scheme Farm		Government Farm		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
//Karas	337	16.3	99	10.9	8	10.3	0	0.0	6	46.2	450	14.6
Erongo	111	5.4	54	6.0	5	6.4	0	0.0	3	23.1	173	5.6
Hardap	505	24.4	224	24.7	15	19.2	6	60.0	2	15.4	752	24.5
Khomas	241	11.7	43	4.7	1	1.3	0	0.0	0	0.0	285	9.3
Kunene	149	7.2	111	12.2	12	15.4	1	10.0	0	0.0	273	8.9
Omaheke	213	10.3	111	12.2	14	17.9	0	0.0	0	0.0	338	11.0
Oshikoto	59	2.9	171	18.9	5	6.4	1	10.0	1	7.7	237	7.7
Otjozondjupa	451	21.8	94	10.4	18	23.1	2	20.0	1	7.7	566	18.4
Total	**2 066**	**100.0**	**907**	**100.0**	**78**	**100.0**	**10**	**100.0**	**13**	**100.0**	**3 074**	**100.0**



Section 3: Land Use

Farmers were asked whether they operated any land on their farms during the past 12 months prior to the census. Figure 3.1 presents farms in Namibia by land operated and it shows that 85.3 percent of farmers reported that they operated land in the past 12 months.

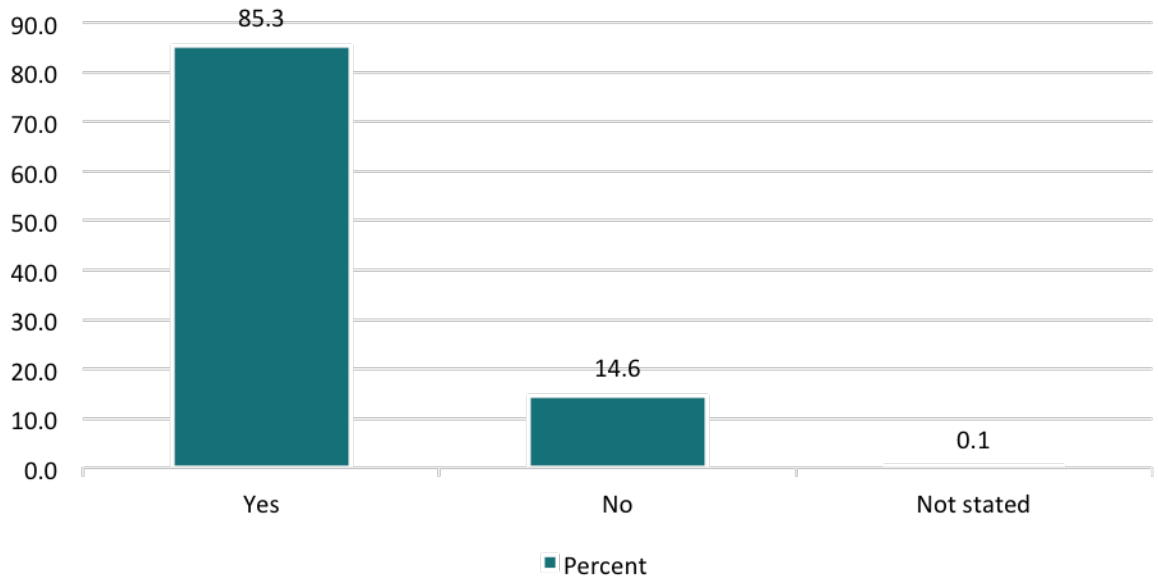


Figure 3.1 Farms by land operated in the past 12 months

Table 3.1 presents the percentage of farms where land was operated in the past 12 months by regions. It is evident that the majority of the farms that operated land in the past 12 months were in Hardap, Otjozondjupa and //Karas regions, with 24.2, 19.1 and 14.8 percent, respectively.

Table 3.1: Farms by land operated in the past 12 months by region

Region	Land operated in the past 12 months					
	Yes		No		Total	
	Number	%	Number	%	Number	%
//Karas	422	14.8	43	8.8	465	14.0
Erongo	152	5.3	35	7.2	187	5.6
Hardap	688	24.2	163	33.5	851	25.5
Khomas	260	9.1	25	5.1	285	8.6
Kunene	275	9.7	9	1.8	284	8.5
Omaheke	319	11.2	60	12.3	379	11.4
Oshikoto	186	6.5	57	11.7	243	7.3
Otjozondjupa	544	19.1	95	19.5	639	19.2
Total	**2 846**	**100.0**	**487**	**100.0**	**3 333**	**100.0**

It can be further observed from Table 3.2 that the majority of the farms, 74.7 percent, in Namibia use land for grazing. The results also shows that only 9.4 percent of farms use land for temporary crops and 7.4 percent use land for game. Only about 5 percent of farms used their land for permanent pasture and for wood or forest.

Table 3.2: Farms by type of land use classes

Land Use Classes	Number of farms that operated land in the past 12 months	Percent
Land under temporary crops	268	9.4
Land under temporary pastures	64	2.2
Land temporary fallow	22	0.8
All other Arable land	33	1.2
Land under permanent crops	60	2.1
Land under permanent pasture	157	5.5
Wood or forest land	154	5.4
Fenced area for Game	211	7.4
Rented Cash-cropping	2	0.1
Grazing land	2 125	74.7
All other land	90	3.2
Total*	**2 846**	

Note: * The total is the number of farms that operated land in the past 12 months. This is not the total in the column as some farms gave multiple land use classes

Table 3.3 shows that 9 348 269 hectares of land in Namibia was operated during the past 12 months. The majority of this land, about 7 800 966 hectares are used for grazing accounting for 83.5 percent of the total farm land, while only 10 958 hectares (0.12%) of the total farm land were used for permanent crops. On the other hand, the table further shows that 493 hectares (0.01 %) of farm land are temporary fallow.

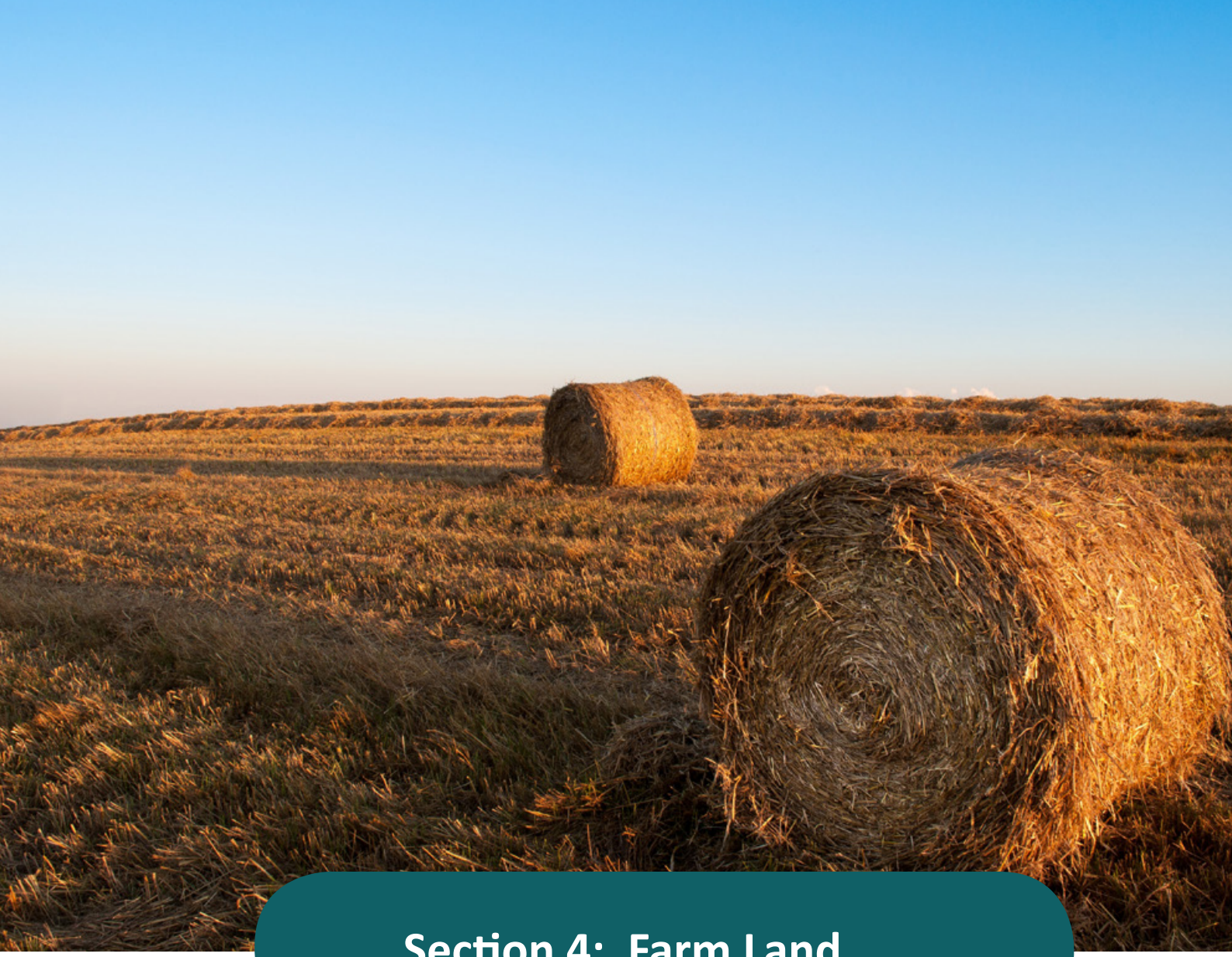
Table 3.3: Area of farm land operated by land use classes

Land Use Classes	Area in hectares	Percent of Total
Land under temporary crops	28 354	0.30
Land under temporary pastures	51 440	0.55
Land temporary fallow	493	0.01
All other Arable land	991	0.01
Land under permanent crops	10 958	0.12
Land under permanent pasture	331 056	3.54
Wood or forest land	148 651	1.59
Fenced area for Game	692 201	7.40
Rented Cash-cropping	1 860	0.02
Grazing land	7 800 966	83.45
All other land	281 300	3.01
Total Farm Land	**9 348 269**	**100.00**

Farmers reported the highest average rainfall of 339 mm during the period November 2011 to October 2012, 194mm during the period November 2012 to October 2013 and 307mm during the period November 2013 to October 2014. Farmers in Otjozondjupa region reported the highest average rainfall during all three periods, except for the period November 2012 to October 2013 where Oshikoto region reported the highest average rainfall of 373mm. During the past three years prior to the census, farmers in //Karas region reported the lowest rainfall of 130mm, 91mm and 100mm, respectively.

Table 3.4: Farms by average rainfall in the past three years and region

Region	Number of farms	Rainfall (in mm)		
		November 2011 to October 2012	November 2012 to October 2013	November 2013 to October 2014
		Average	Average	Average
//Karas	468	130	91	100
Erongo	187	313	151	283
Hardap	852	219	142	178
Khomas	285	375	170	325
Kunene	284	369	213	324
Omaheke	379	408	267	491
Oshikoto	243	512	373	453
Otjozondjupa	639	548	287	503
Total	**3337**	**339**	**194**	**307**



Section 4: Farm Land

The census asked farmers to indicate the land ownership and the type of ownership and a total of 2 601 farm owners responded to the question. Table 4.1 shows that the majority of the farms, 1 721 farms, are free hold farms and are owned by the farmers, followed by 729 state land farms and 106 leasehold farms. Only seven farms are rented for sharecrop including cash.

Table 4.1: Number of farms by ownership type, land ownership and area of land operated

Ownership Type	Number of Farms				
	Land ownership				
	Free Hold	Leasehold	State land	Others	Total
Owned	1 721			20	1741
Rented sharecropping		13			13
Rented cash		43	729	3	775
Rented sharecrop including cash		2		5	7
Rented other		33		6	39
Not applicable		15		11	26
Total	**1 721**	**106**	**729**	**45**	**2601**
Total Area in hectares	**10 513 572**	**411 785**	**1 307 281**	**171 363**	**12 404 000**

About 22 percent of all free hold farms are in Hardap and Otjozondjupa regions, with only 2.6 percent of free hold farms in Oshikoto region. Among the leasehold farms, 26.7 percent are in Hardap region, while only 2.2 percent are in Oshikoto region. The majority of the state land farms are found in Hardap region with 23.8 percent, followed by Oshikoto, Kunene and Omaheke regions with 19.8, 12.9 and 11.6 percent, respectively.

Table 4.2: Farms by Land ownership and region

Region	Land ownership									
	Free Hold		Leasehold		State land		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
//Karas	294	16.2	10	11.1	91	10.5	7	13.7	402	14.3
Erongo	105	5.8	5	5.6	49	5.7	2	3.9	161	5.7
Hardap	414	22.8	24	26.7	206	23.8	17	33.3	661	23.5
Khomas	198	10.9	7	7.8	46	5.3	6	11.8	257	9.1
Kunene	149	8.2	5	5.6	112	12.9	3	5.9	269	9.5
Omaheke	198	10.9	15	16.7	100	11.6	4	7.8	317	11.2
Oshikoto	48	2.6	2	2.2	171	19.8	1	2.0	222	7.9
Otjozondjupa	406	22.4	22	24.4	90	10.4	11	21.6	529	18.8
Total	**1 812**	**100.0**	**90**	**100.0**	**865**	**100.0**	**51**	**100.0**	**2 818**	**100.0**

Table 4.3 presents the distribution of farms by type of soil cover. The table shows that 33.7 percent of farmers reported sandy as their farms soil cover, followed by sandy/clay reported by 18.9 percent of farms and sandy/loamy reported by 13.7 percent of farms. Less than one percent of farmers reported rocky/loamy, mica, sandy/stony or calcareous as their farm's soil cover.

Table 4.3: Farms by type of soil cover

Type of soil cover	Number of Farms	%
Sandy	1 124	33.7
Clay	386	11.6
Loam	190	5.7
Sandy/Clay	632	18.9
Sandy/Loamy	456	13.7
Clay/ Loamy	236	7.1
Calcareous	23	0.7
Mica	9	0.3
Rocky	318	9.5
Rocky/Loamy	9	0.3
Sandy/Rocky	33	1.0
Sandy/Stony	18	0.5
Other	295	8.8
Total*	**3 337**	

Note: * The total is the number of farms. This is not the total in the column as some farms gave multiple soil cover

Figure 4.1 shows the percentage of farms with erosion problem. The results shows that 82.6 percent of farmers reported that they did not experience soil erosion problems on their farms during the last 12 months with only 16.9 percent having experienced erosion problem.

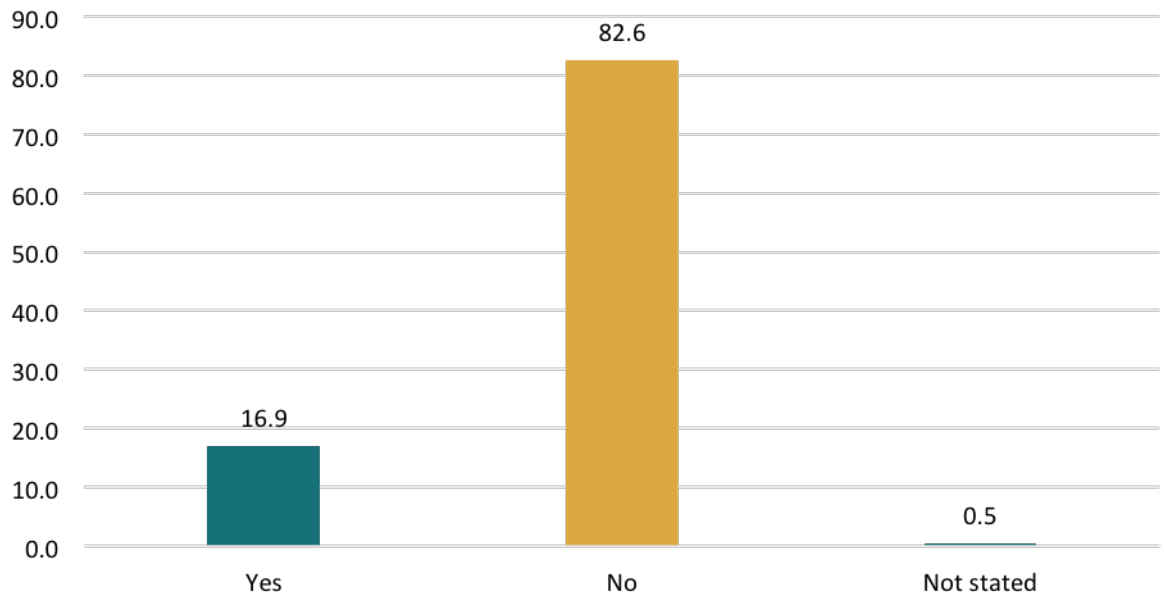


Figure 4.1: Farms by soil erosion problem

Of the farms that experienced soil erosion problems during the reference period, Hardap and Otjozondjupa regions recorded the highest farms with 26.1 and 22.7 percent, respectively, while in the regions of Khomas, Omaheke and Oshikoto farmers experienced the least erosion of 8.7, 6.0 and 4.8 percent, respectively.

Table 4.4: Farms by soil erosion problem and region

Region	Soil erosion problem		
	Yes	No	Total
	%	%	%
//Karas	8.5	14.9	13.8
Erongo	10.8	4.5	5.6
Hardap	26.1	25.5	25.6
Khomas	8.7	8.5	8.5
Kunene	12.4	7.7	8.5
Omaheke	6.0	12.5	11.4
Oshikoto	4.8	7.8	7.3
Otjozondjupa	22.7	18.5	19.2
Total	**100.0**	**100.0**	**100.0**

With respect to the type of soil erosion problem, about 36 percent of the farms in Namibia indicated overgrazing as the main soil erosion problem, followed by no terracing with 23.8 percent (Figure 4.2). In addition, about 6 percent of farms indicated deforestation as the main reason for soil erosion.

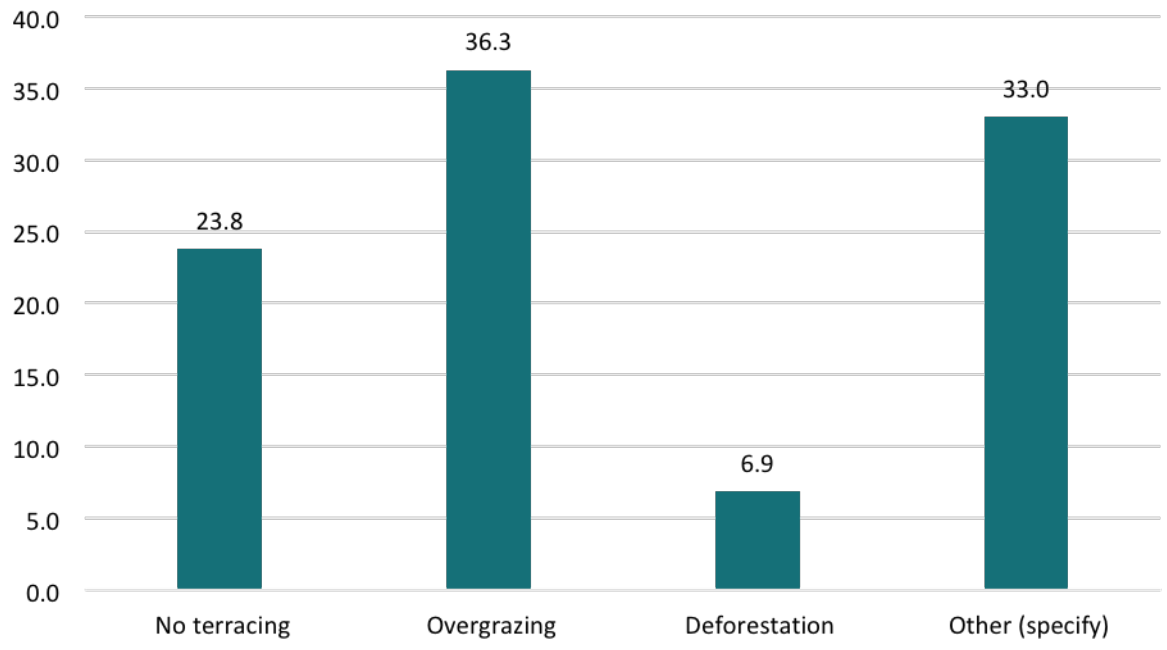
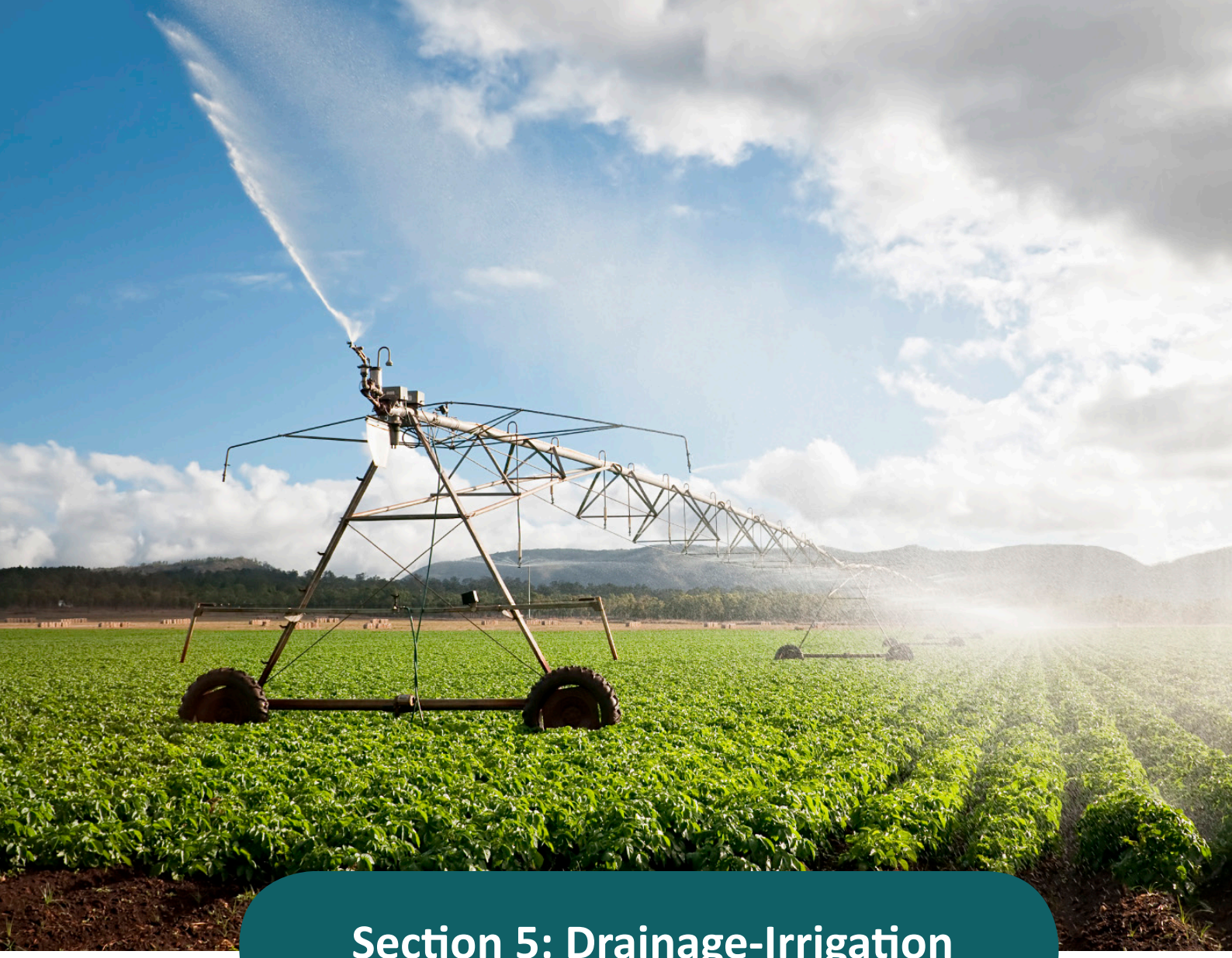


Figure 4.2: Farms by type of soil erosion problem

Table 4.5 shows that 27.3 percent of the farmers in Otjozondjupa region reported that no terracing is the main problem of soil erosion. About 32 percent of the farmers in Hardap region reported that overgrazing is the main problem of soil erosion, while 18.4 percent of farmers in Kunene region reported deforestation as the main problem of soil erosion.

Table 4.5: Farms by type of soil erosion problem and region

Region	Soil erosion problem				
	No terracing	Overgrazing	Deforestation	Other	Total
	%	%	%	%	%
//Karas	3.0	5.5	10.5	15.8	8.7
Erongo	15.9	8.0	5.3	12.0	11.0
Hardap	25.8	32.3	18.4	21.9	26.4
Khomas	6.8	9.0	15.8	8.7	8.8
Kunene	12.1	11.9	18.4	9.8	11.7
Omaheke	5.3	7.5	7.9	3.8	5.8
Oshikoto	3.8	4.0	15.8	4.4	4.9
Otjozondjupa	27.3	21.9	7.9	23.5	22.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**



Section 5: Drainage-Irrigation

Figure 5.1 present the percentage of farms that indicted they operated land in the past 12 months and whether they drained or irrigated their land. The figure shows that only 10.7 percent of farms reported draining or irrigation of land during the past 12 months. In addition, Table 5.1 reveals that the majority (35.4%) of farms that reported drained or irrigated land during the past 12 months were in Hardap region, followed by Otjozondjupa with 14.4 percent.

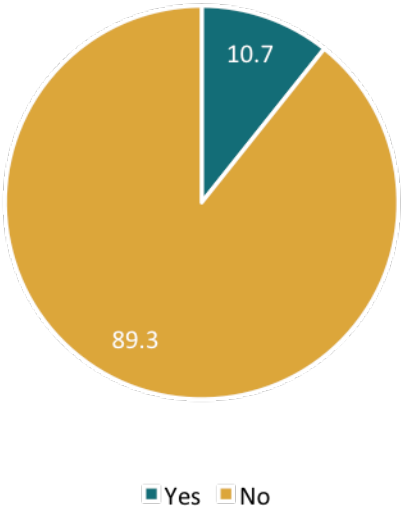


Figure 5.1: Distribution of farms that drained or irrigated land during the reference period

Table 5.1: Distribution of farms that drained or irrigated land during the reference period by region

Region	Land drained or irrigated during the past 12 months					
	Yes		No		Total	
	Number	%	Number	%	Number	%
//Karas	31	10.2	391	15.4	422	14.8
Erongo	14	4.6	138	5.4	152	5.3
Hardap	108	35.4	580	22.8	688	24.2
Khomas	23	7.5	237	9.3	260	9.1
Kunene	27	8.9	248	9.8	275	9.7
Omaheke	30	9.8	289	11.4	319	11.2
Oshikoto	28	9.2	158	6.2	186	6.5
Otjozondjupa	44	14.4	500	19.7	544	19.1
Total	**305**	**100.0**	**2 541**	**100.0**	**2 846**	**100.0**

Furthermore, table 5.2 reveals that only 6 302 hectares of land were drained and 5 068 hectares were irrigated during the past 12 months.

Table 5.2: Area of farm land drained and irrigated by region

Region	Area in hectares	
	Land Drained	Land Irrigated
//Karas	5 317	401
Erongo	0	182
Hardap	509	2 877
Khomas	0	9
Kunene	258	19
Omaheke	137	15
Oshikoto	36	1 196
Otjozondjupa	46	370
Total	**6 302**	**5 068**

Table 5.3 shows that 14 farms drained and 15 farms irrigated land during the past 12 months for white maize and 12 farms drained and 13 farms irrigated land during the past 12 months for onions.

Table 5.3: Number of farms by type of crop drained/irrigated

Type of Crop	Number of farms		
	Drained	Irrigated	Total
White Maize	14	15	29
Yellow Maize	2	1	3
Wheat	-	2	2
Fodder	-	1	1
Lucerne	6	21	27
Onions	12	13	25
Tomatoes	12	12	24
Cabbage	-	8	8
Carrots	-	7	7
Grapes	-	4	4
Mahangu	-	1	1
Pumpkin	-	6	6
Mixed Crops	-	7	7
Other	136	152	288
Total	**182**	**250**	**432**

Figure 5.2 present the distribution of farms by advice sought on water source, distribution system and delivery system for irrigation. More than 70 percent of farms in Namibia reported that they did not seek advice on water source, distribution system and delivery system for irrigation in the past 12 months.

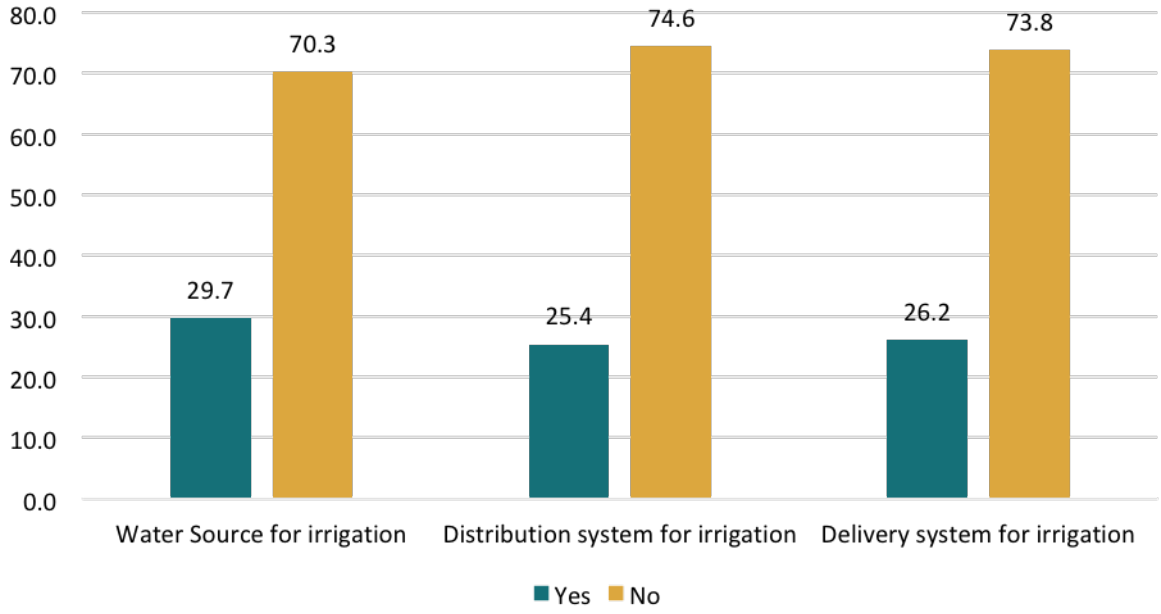


Figure 5.2: Distribution of farms by advice sought on water source, distribution system and delivery system for irrigation

At regional level, the highest percent of farms that seek advice on water source for irrigation are from Hardap region with 33.3 percent, followed by Oshikoto region with 18.3 percent. In contrast, only 3.2 percent of farms in Khomas region seek advice on water source for irrigation. The same pattern can be observed among regions that seek advice on distribution system and delivery system for irrigation, except for farms in Otjozondjupa region that reported the second highest proportion of farms that seek advice on distribution system and delivery system for irrigation, 14.2and 14.5 percent, respectively.

Table 5.4: Distribution of farms by advice sought on water source, distribution system and delivery system for irrigation and region

Region	Advice sought		
	Water source for irrigation	Distribution system for irrigation	Delivery system for irrigation
	%	%	%
//Karas	9.7	10.4	10.2
Erongo	5.4	4.3	4.6
Hardap	33.3	36.5	35.5
Khomas	3.2	9.5	7.6
Kunene	10.8	8.1	8.9
Omaheke	4.3	12.3	9.9
Oshikoto	18.3	4.7	8.9
Otjozondjupa	15.1	14.2	14.5
Total	**9.7**	**10.4**	**10.2**

Table 5.5 shows that 52.2 percent of farms reported that they seek advice on water source for irrigation from government, followed by private agencies with 34.4 percent, while only 1.1 percent of farms seek advice on water source for irrigation from Unions. Furthermore, more than 40 percent of farms seek advice on distribution system and delivery system for irrigation from government and private agencies.

Table 5.5: Distribution of farms by source of advice sought on water source, distribution system and delivery system for irrigation

Source of Advice	Irrigation systems		
	Water Source for irrigation	Distribution system for irrigation	Delivery system for irrigation
Government	52.2	40.2	41.0
Private Agency	34.4	46.3	49.4
NGO	3.3	3.7	2.4
Unions	1.1	0.0	0.0
Other	8.9	9.8	7.2
Total	**100.0**	**100.0**	**100.0**

Among those farms that seek advice from government on water source for irrigation 34.0 percent of the farms are from Hardap region, followed by Oshikoto region with 19.1 percent (Table 5.6). Less than one percent of farms in Khomas region seek advice on water source for irrigation from government. Similarly, about 32 percent of farms in Hardap region also reported that they seek advice on water source for irrigation from private agencies, followed by more than 19 percent of farms from Oshikoto and Otjozondjupa regions.

Table 5.6: Distribution of farms by source of advice on water source for irrigation and region

Region	Source of advice on water source for irrigation					
	Government	Private Agency	NGO	Unions	Other	Total
	%	%	%	%	%	%
//Karas	17.0	3.2	0.0	0.0	0.0	10.0
Erongo	6.4	3.2	0.0	0.0	0.0	4.4
Hardap	34.0	32.3	66.7	0.0	50.0	35.6
Khomas	0.0	6.5	0.0	0.0	12.5	3.3
Kunene	6.4	9.7	0.0	0.0	12.5	7.8
Omaheke	4.3	6.5	0.0	0.0	0.0	4.4
Oshikoto	19.1	19.4	33.3	0.0	12.5	18.9
Otjozondjupa	12.8	19.4	0.0	100.0	12.5	15.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table 5.7 shows that among those farms that seek advice from government on distribution system for irrigation, 45.5 percent are from Hardap region, followed by Oshikoto region with 24.2 percent of farms. Less than one percent of farms in Khomas region seek advice on distribution system for irrigation from government. In addition, slightly over 26 percent of farms in Otjozondjupa and Hardap region reported private agencies as their source of advice on distribution system for irrigation.

Table 5.7: Distribution of farms by source of advice on distribution system for irrigation and region

Region	Source of advice on distribution system for irrigation				
	Government	Private Agency	NGO	Other	Total
	%	%	%	%	%
//Karas	12.1	10.5	0.0	12.5	11.0
Erongo	3.0	7.9	0.0	0.0	4.9
Hardap	45.5	28.9	66.7	50.0	39.0
Khomas	0.0	2.6	0.0	0.0	1.2
Kunene	6.1	5.3	33.3	12.5	7.3
Omaheke	3.0	2.6	0.0	12.5	3.7
Oshikoto	24.2	15.8	0.0	12.5	18.3
Otjozondjupa	6.1	26.3	0.0	0.0	14.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Similarly, the results in Table 5.8 are identical to those presented in Table 5.7 above, with 41.2 and 23.5 percent of farms from Hardap and Oshikoto regions indicated having seek advice from government on delivery system for irrigation. Less than 1 percent of farms in Kunene and Khomas region seek advice on delivery system for irrigation from government. On the other hand, more than 22 percent of farms in Otjozondjupa and Hardap region reported that they seek advice on delivery system for irrigation from private agencies.

Table 5.8: Distribution of farms by source of advice on delivery system for irrigation and region

Region	Source of advice on delivery system for irrigation				
	Government	Private Agency	NGO	Other	Total
	%	%	%	%	%
//Karas	11.8	12.2	0.0	0.0	10.8
Erongo	5.9	9.8	0.0	0.0	7.2
Hardap	41.2	29.3	100.0	66.7	38.6
Khomas	0.0	4.9	0.0	0.0	2.4
Kunene	0.0	7.3	0.0	16.7	4.8
Omaheke	8.8	0.0	0.0	0.0	3.6
Oshikoto	23.5	14.6	0.0	16.7	18.1
Otjozondjupa	8.8	22.0	0.0	0.0	14.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**



Section 6: Agricultural Inputs and Extension Services

Figure 6.1 reveals that 66.6 percent of farms reported that they used agricultural inputs during the past 12 months. At regional level, Table 6.1 shows that the majority (24.9 percent) of farms that use agricultural inputs for crops and/or livestock during the past 12 months were in Hardap region, followed by farms in Otjozondjupa with 19.4 percent and //Karas with 14.5 percent of farms that use agricultural inputs for crops and/or livestock during the past 12 months.

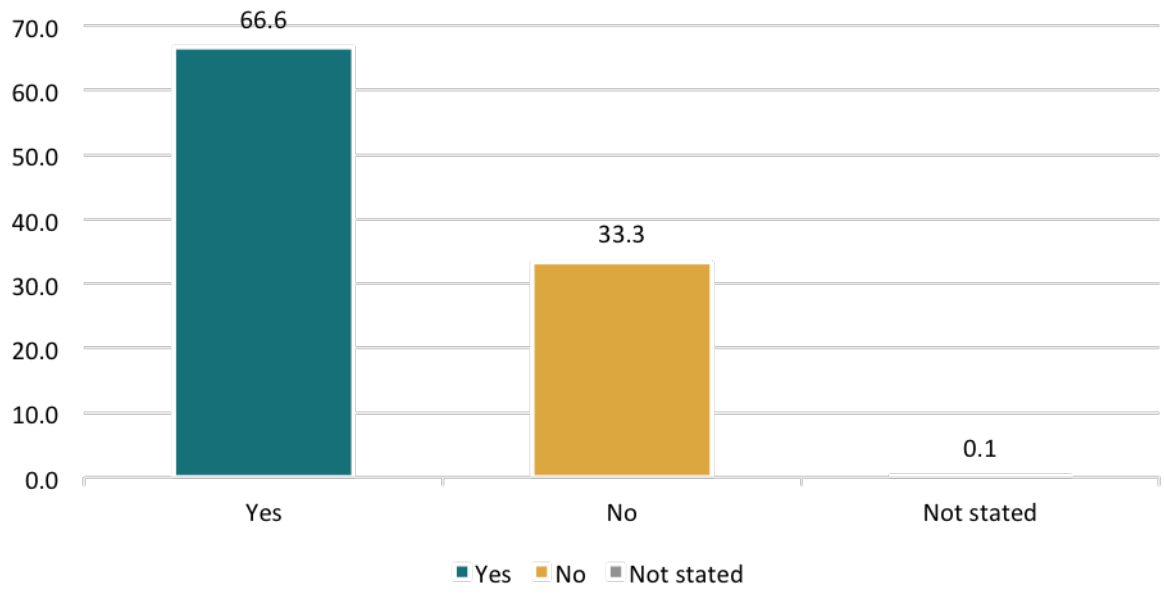


Figure 6.1: Distribution of farms reporting use of agricultural inputs

Table 6.1: Number of farms reporting use of agricultural inputs by region

Region	Total number of farms	Number of farms using agricultural inputs for crops/ livestock	Percent of farms using agricultural inputs for crops/ livestock
//Karas	466	322	14.5
Erongo	187	117	5.3
Hardap	853	554	24.9
Khomas	285	207	9.3
Kunene	284	215	9.7
Omaheke	380	265	11.9
Oshikoto	243	113	5.1
Otjozondjupa	639	432	19.4
Total	**3 337**	**2 225**	**100.0**

With respect to the type of inputs used, about 6 percent of farms in Namibia indicated to have used local seeds during the past 12 months, followed by improved seeds and insecticides used by 4.0 percent of the farms (Table 6.2). On the other hand, Rodenticides and Other Pesticides were only used by less than one percent of the farms during the past 12 months.

Table 6.2: Number of farms by type of inputs used for crops

Type of Crop Inputs	Number of farms	%
Local Seeds	141	6.3
Improved Seeds	89	4.0
Hybrid Seeds	68	3.1
Organic Fertilizer	85	3.8
Inorganic Fertilizer	82	3.7
Herbicides	80	3.6
Fungicides	31	1.4
Insecticides	89	4.0
Rodenticides	15	0.7
Other Pesticides	13	0.6
Other Inputs	32	1.4
Total*	**2 225**	

Note: * The total is the number of farms. This is not the total in the column as some farms gave multiple type of crop inputs

Table 6.3 presents the distribution of farms by type of agricultural inputs and source of crop inputs. The table reveals that most of the farms (52 farms) obtained their inputs on local seeds by their own, while 25 farms reported that they obtained local seeds from the market. Furthermore, 20 farms reported that they obtained their inputs for inorganic fertilizers from cooperatives.

Table 6.3: Number of farms by type of agricultural inputs and source of crop inputs

Type of Crop Inputs	Source of Crop Inputs								
	Own	Market	Cooperative	Government	Related organization	NGO	Input suppliers	Input dealers	Other
Local Seeds	52	25	10	21			9	5	1
Improved Seeds	11	25	13	15	1	1	13	2	
Hybrid Seeds	14	14	12	2			13	5	
Organic Fertilizer	35	14	4	2		1	8	4	
Inorganic Fertilizer	16	17	20	1	1		16	2	
Herbicides	16	13	16	1	1		19	5	1
Fungicides	4	3	6				8	4	
Insecticides	18	21	18		1		13	4	
Rodenticides	2	7	1				4		
Other Pesticides	4	4	1						
Other Inputs	9	2	3				4	1	2

Table 6.4 presents the number of farms by type of livestock inputs and it shows that 88.8 percent of farms reported that they used vaccines as a livestock input during the past 12 months. The results further shows that 75.7 percent of farms used lick supplements and 71.6 percent of farms used salt blocks as a livestock input during the past 12 months. Only 1.6 percent of farms used dip a livestock input during the past 12 months.

Table 6.4: Number of farms by type of livestock inputs

Type of livestock inputs	Number of farms	%
Vaccine	1 976	88.8
Fodder	1 097	49.3
Salt Block	1 594	71.6
Lick Supplement	1 685	75.7
Mineral Supplement	765	34.4
Dip	36	1.6
Other	48	2.2
Total*	**2 225**	

Note: * The total is the number of farms using agricultural inputs. This is not the total in the column as some farms gave multiple type of livestock inputs

More than 400 farms reported that they obtained their livestock inputs for vaccine and lick supplements on their own. Furthermore, more than 300 farms indicated that they obtained their livestock inputs for vaccine from markets and cooperatives. It is worth noting that more than 100 farms also reported that they obtained their livestock inputs for vaccine, salt blocks and lick supplements from input suppliers.

Table 6.5: Number of farms by type of livestock inputs and source of livestock inputs

Type of livestock inputs	Source of Livestock Inputs								
	Own	Market	Cooperative	Government	Related organization	NGO	Input suppliers	Input dealers	Other
Vaccine	460	317	323	12	3	5	159	101	22
Fodder	275	218	171	3	2	4	83	65	6
Salt Block	366	275	246	3	1	9	105	74	14
Lick Supplement	401	240	265	12	1	5	144	97	11
Mineral Supplement	181	126	118	3	1	2	65	44	5
Other	4	5	31					2	

Farmers were further asked to provide the main reasons why they did not used crop/livestock inputs and Figure 6.2 shows that more than 21 percent of farms reported that they do not see the usefulness or it is too expensive to buy them. About 13 percent of farms indicated that they have no knowledge about crop/livestock inputs while 10.3 percent reported that crop/livestock inputs are not available.

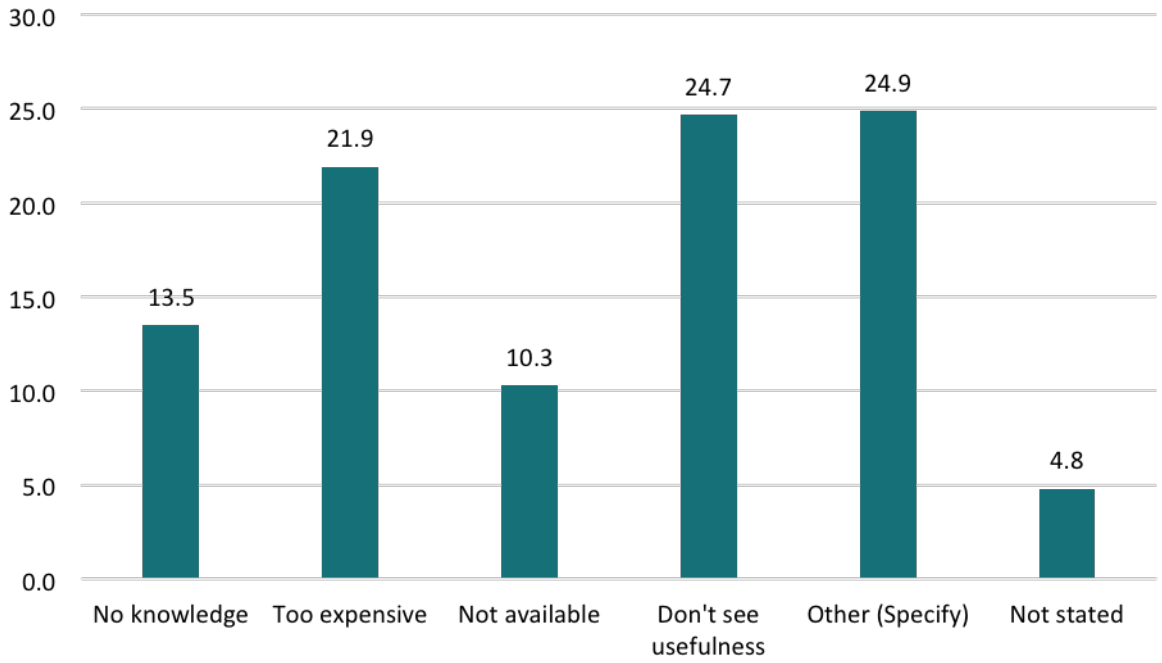


Figure 6.2: Distribution of farms by main reason crop/livestock inputs not used

Furthermore, farmers were also asked whether they received any agricultural extension services in the past 12 months. Figure 6.3 shows that 69.4 percent of farms reported that they did not receive any agricultural extension services in the past 12 months. Furthermore, Table 6.6 shows that 25.3 percent of farms in Hardap region reported that they received agricultural extension service in the past 12 months followed by 19.2 percent of the farms in Otjozondjupa region.

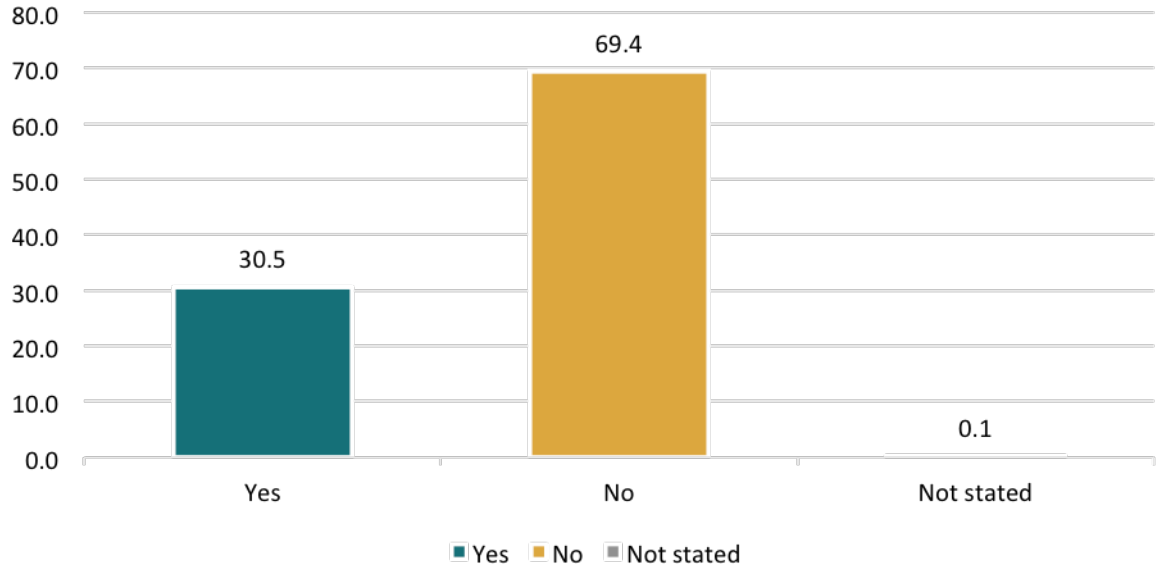


Figure 6.3: Distribution of farms by agricultural extension services received in the past 12 months

Table 6.6: Number of farms that received agricultural extension services by region

Region	Total number of farms	Number of farms that received agricultural extension services	Percent of farms that received agricultural extension services
//Karas	466	170	16.7
Erongo	187	53	5.2
Hardap	853	258	25.3
Khomas	285	80	7.8
Kunene	284	105	10.3
Omaheke	380	121	11.9
Oshikoto	243	37	3.6
Otjozondjupa	639	196	19.2
Total	**3 337**	**1 020**	**100.0**

The results in Table 6.7 shows that 81.4 percent of farms reported that they received agricultural extension service on animal health, followed by 40.3 percent of farms that received services on farm management. The results further shows that 39.8 percent of farms indicated that they received agricultural extension service on lick supplementation while 23 percent received training as part of an agricultural extension service. More than 10 percent of farms reported that they received agricultural extension service on input use, credit service and farm mechanization, while more than 18 percent of farms reported that they received agricultural extension service on marketing and financial issues. Less than ten percent of farms reported that they received agricultural extension service on selection of crops and plant protection.

Table 6.7: Number of farms receiving extensive services by type of agricultural extension services received

Type of agricultural extension services	Number of farms	Percent
Farm Management	411	40.3
Selection of crop varieties	91	8.9
Input Use	129	12.6
Credit Services	138	13.5
Farm mechanization	125	12.3
Animal health	830	81.4
Plant protection	73	7.2
Environment conservation	114	11.2
Training	235	23.0
Marketing	190	18.6
Financial	185	18.1
Rangeland Management	165	16.2
Lick Supplementation	406	39.8
Other	25	2.5
Total*	**1020**	

Note: * The total is the number of farms that received extension services. This is not the total in the column as some farms gave multiple agricultural extension services

Table 6.8 shows that most farms, 464 farms, received agricultural extension services on animal health from government, followed by farm management offered by government (204 farms). The table further shows that 149 farms received agricultural extension services on animal health from private agencies and NGO's.

Table 6.8: Number of farms by type of agricultural extension services received and source of service provider

Type of agricultural extension services	Service Provider						
	Government	Private Agency	NGO	Employed Specialist	Contracted Specialist	Own staff	Other
Farm Management	204	37	13	4	16	119	14
Selection of crop varieties	38	28	28	2	4	11	5
Input Use	56	20	20	1	12	33	11
Credit Services	14	75	75		4	12	21
Farm mechanization	14	35	35	7	8	47	9
Animal health	464	149	149	9	47	118	23
Plant protection	24	17	17		4	25	4
Environment conservation	36	12	12	2	10	40	12
Training	89	31	31	2	18	75	8
Marketing	40	57	57	1	26	48	14
Financial	31	73	73		20	37	14
Rangeland Management	47	38	38	1	20	41	12
Lick Supplementation	78	136	136	8	29	121	25
Other	12	7	7		1	2	1

With respect to the distribution of farms by agricultural extension service received during the past 12 months, Table 6.9 shows that most farms (more than 50 percent) that received agriculture extension services are affirmative action loan scheme and government farms.

Table 6.9: Distribution of farms by agricultural extension services received and farm type

Farm Type	Agricultural extension services received in the past 12 months		
	Yes	No	Total
	%	%	%
Private Commercial Farm	28.9	71.1	100.0
Resettlement Farm	39.8	60.2	100.0
Affirmative Action Loan Scheme Farm	53.8	46.2	100.0
Government Farm	50.0	50.0	100.0
Other	23.1	76.9	100.0
Total	**32.8**	**67.2**	**100.0**



Section 7: Crop production and sales

Figure 7.1 present the distribution of farms by crops planted, horticulture products grown and fruits grown during the past 12 months and the results shows that well over 90 percent of farms reported that they did not plant any crops, grown any horticulture products or grow any fruits during the past 12 months.

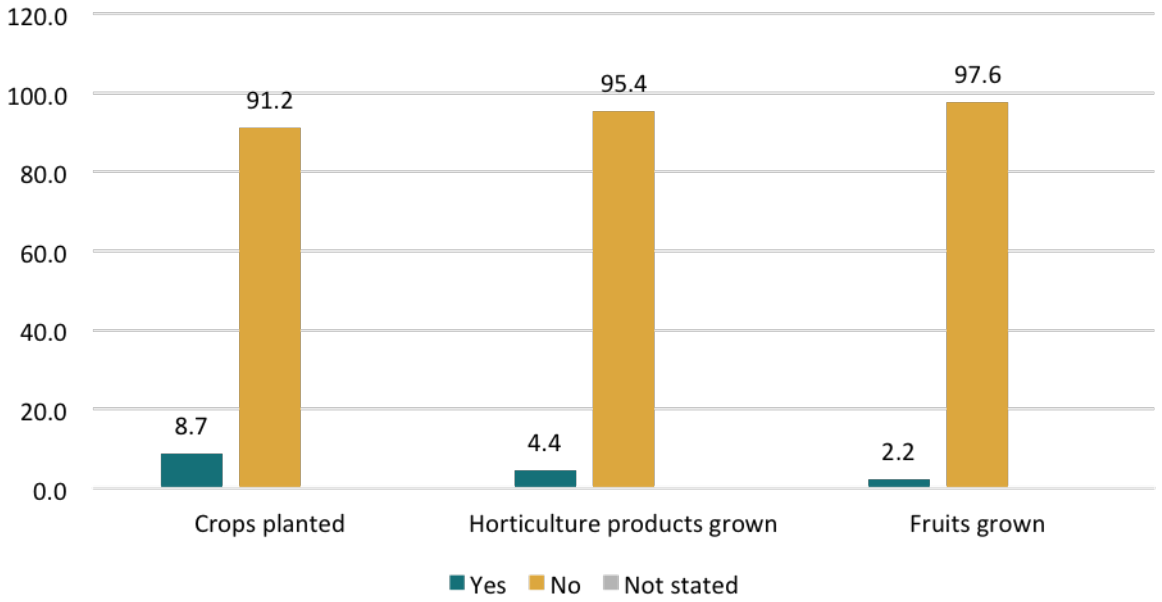


Figure 7.1: Farms by crops planted, horticulture products grown and fruits grown during the past 12 months

Among the farms that reported that they planted crops, 30.4 percent are based in Otjozondjupa region, 26 percent are based in Oshikoto region (Table 7.1). On the other hand, only 2.4 percent of farms based in Khomas region indicated that they planted crops during the past 12 months compared to other regions.

Table 7.1: Number of farms by crops planted during the reference period by region

Region	Total number of farms	Number of farms that planted crops	Percent of farms that planted crops
//Karas	464	8	2.8
Erongo	187	9	3.1
Hardap	852	31	10.7
Khomas	285	7	2.4
Kunene	284	34	11.8
Omaheke	379	37	12.8
Oshikoto	243	75	26.0
Otjozondjupa	639	88	30.4
Total	**3 333**	**289**	**100.0**

On the type of crops planted, Table 7.2 shows that 59.9 percent of farms reported that they planted white maize during the past 12 months, while less than 10 percent reported that they planted wheat, rice, sunflower, olives, sorghum, groundnuts and mahangu during the past 12 months.

Table 7.2: Number of farms by type of crops planted during the reference period

Type of crops planted	Number of farms	Percent
White Maize	173	59.9
Yellow Maize	69	23.9
Wheat	7	2.4
Fodder	37	12.8
Rice	1	0.3
Beans	61	21.1
Sunflower	11	3.8
Olives	2	0.7
Sorghum	25	8.7
Groundnuts	15	5.2
Mahangu	8	2.8
Other	57	19.7
Total*	**289**	

Note: * The total is the number of farms that planted crops. This is not the total in the column as some farms gave multiple type of crop planted

Table 7.3 shows that 4 378 hectares of irrigated land was used to plant white maize, yielding a harvest of 103 886 kg. Out of these, 99 665 kg white maize was sold by the farmers in Namibia. It also shows that 436 hectares of irrigated land was used to plant yellow maize, yielding a harvest of 31 732 kg. Out of these, 5 219 kg yellow maize was sold. Furthermore, 1 732 hectares of irrigated land was used to plant fodder, yielding a harvest of 16 532 kg of which 6 710 kg was sold.

Table 7.3: Distribution of type of crops planted, harvested and sold during the past 12 months

Type of Crops	Crop Field Area Planted (Ha)		Quantity Harvested (Kg)		Quantity Sold (Kg)
	Irrigated land	Dry Land	Irrigated land	Dry Land	
White Maize	4 378	1 567	103 886	44 679	99 665
Yellow Maize	436	149	31 732	26 732	5 219
Wheat	2	185		5 811	5 811
Fodder	1 732	2 037	16 532	16 730	6 710
Beans	837	8	16 963	25	2 179
Sunflower	146	2	8 249		4 331
Olives		1		5	
Sorgum	410	5	16 146	22	10 810
Groundnuts	371	19	19 918	7 560	16 396
Mahangu Crop area dry land	28		1 260		
Other	759	2 346	5 290	38 550	35 451
Total	**9 098**	**6 317**	**219 975**	**140 113**	**186 573**

Table 7.4 shows that 63.9 percent of farms grew onions during the past 12 months. In addition, more than 50 percent of the farms grew tomatoes and pumpkin, while more than 40 percent of farms reported that they grew watermelons, cabbage and carrots during the past 12 months.

Table 7.4: Number of farms by type of horticulture products grown during the past 12 months

Type of Horticultural products grown	Number of farms	Percent
Onions	94	63.9
Watermelon	72	49.0
Tomatoes	88	59.9
Potatoes	18	12.2
Pumpkin	79	53.7
Gem squash	14	9.5
Cabbage	61	41.5
Dates	4	2.7
Chili	24	16.3
Carrots	70	47.6
Lettuce	20	13.6
Sweet melon	34	23.1
Butternut	36	24.5
Sweet potatoes	25	17.0
Peppers	29	19.7
Spinach	32	21.8
Sweetcorn	20	13.6
Cauliflower	12	8.2
Cucumber	22	15.0
Spinach	36	24.5
Broccoli	10	6.8
Asparagus	1	0.7
Other(Specify)	11	7.5
Total*	**147**	

Note: * The total is the number of farms that grows horticulture products. This is not the total in the column as some farms gave multiple type of horticulture products grown

Table 7.5 shows that 99 hectares of irrigated land was used to plant onions, yielding a harvest of 807 048 kg, of which 1 015 413 kg of onions was sold. The table also shows that 1 131 hectares of irrigated land was used to plant tomatoes, yielding a harvest of 313 936 kg, with 330 306 kg of tomatoes sold. Furthermore, 71 hectares of irrigated land was used to plant watermelons, yielding a harvest of 346 917 kg of which 245 917 kg was sold.

Table 7.5: Distribution of farms by type of horticulture products grown and area planted, quantity harvested, quantity sold

during the past 12 months

Type of Horticultural products grown	Horticulture Area planted (Ha)		Horticulture Quantity Harvested (Kg)		Horticulture Quantity sold (Kg)
	Under dry land	Under irrigated land	Under dry land	Under irrigated land	
Onions	37	99	855	807 048	1 015 413
Watermelon	38	71	1 343	346 917	245 917
Sweet melon	14	11	135	83 336	49 920
Tomatoes	40	1 131	280	313 936	330 306
Potatoes	1	25	12	231 813	225 567
Pumpkin	27	96	913	31 432	21 574
Butternut	3	30	27	46 944	46 699
Sweetcorn	0	1 205	40	910	415
Gem squash	1	6	16	4 122	1 000
Cabbage	16	1 232	205	439 942	393 448
Dates	0	6	0	741	741
Sweet potatoes	6	10	50	160 068	160 001
Peppers	1	2 006	37	37 670	42 310
Chili	1	4	6	193	1 483
Cauliflower	0	607	19	2 654	2 544
Carrots	15	23	21 157	34 207	35 478
Broccoli	1	608	10	2 640	2 514
Cucumber	1 000	6	20 020	119 929	121 429
Asparagus	0	0	6	0	0
Spinach	2	27	41	7 902	8 711
Lettuce	0	6	20	72 738	51 365
Other	54	35	20	36 247	36 259
Total	**1 257**	**7 245**	**45 212**	**2 781 387**	**2 793 092**

The results in Figure 7.2 shows that more that 40 percent of the farmers reported their crops, horticulture products and fruits to have been damaged by pests and diseases during the past 12 months.

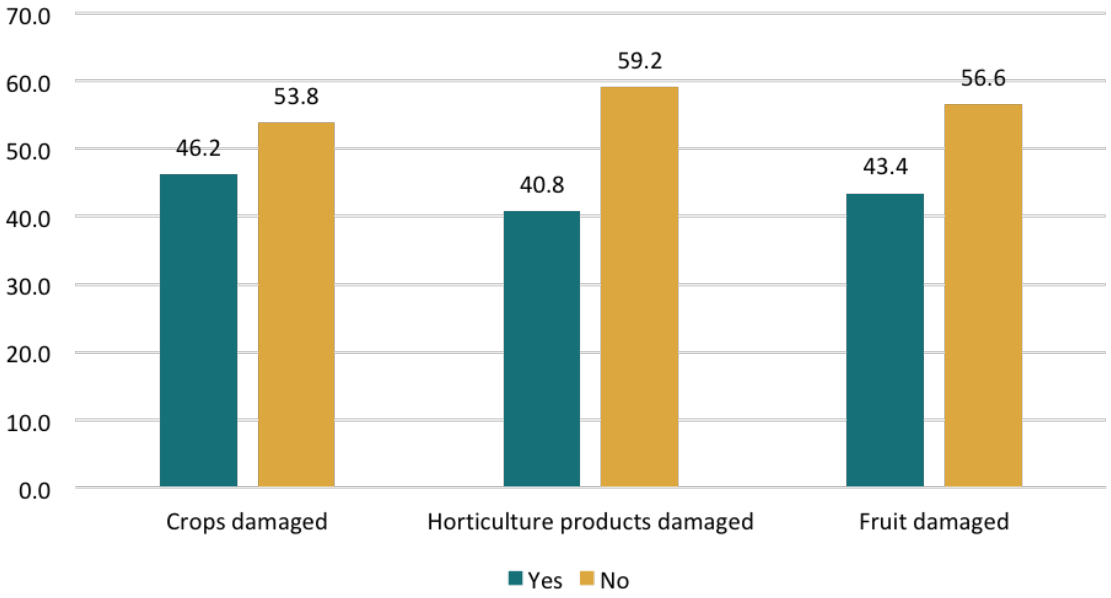


Figure 7.2: Farms by crops, horticulture products and fruits damaged

Figure 7.3 present the main reasons as to why crop, horticulture products and fruit got damaged. The results shows that about 30 percent of farmers reported that no control measures was used to protect crops from pests and diseases, while 21.8 percent indicated that no extension agent help was available to protect crops from pests and diseases.

Furthermore, about 14 percent of farmers reported that no control measures was used to protect their horticulture products from pests and diseases, while 7.5 percent of farms indicated unavailability of extension agent to help with protecting horticulture products from pests and diseases. Slightly more than 13 percent of farms reported that no control measures was used to protect fruits from pests and diseases, while 3.9 percent of farms indicated no extension agent help was available to protect fruits from pests and diseases.

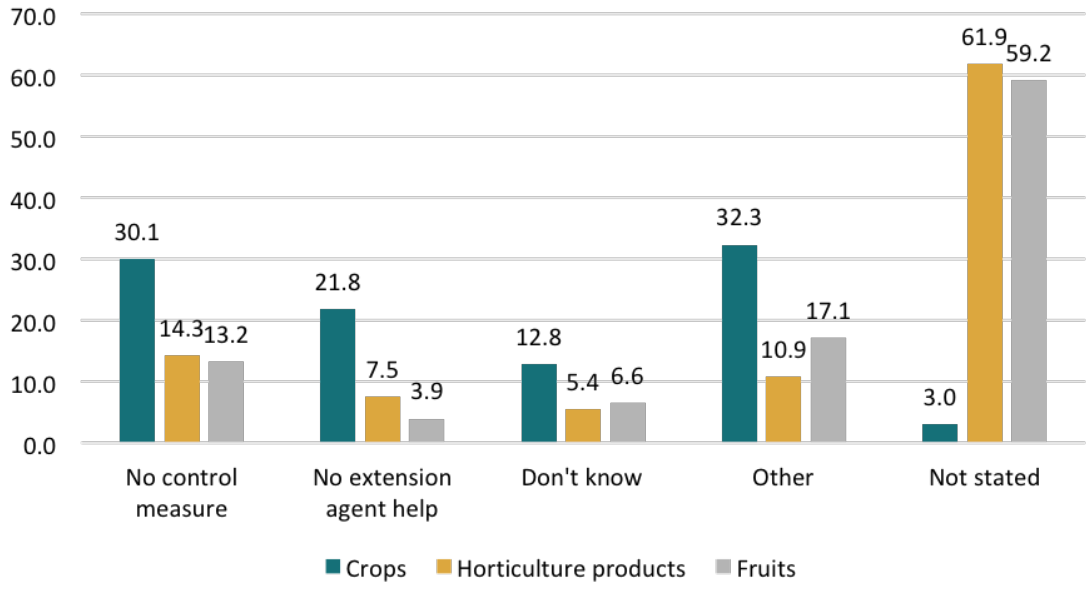


Figure 7.3: Main reason for damaged crop, horticulture products and fruits.



Section 8: Access to Credit/Loan

Agricultural finance normally refers to financial services ranging from short-, medium- and long-term loans, to leasing, to crop and livestock insurance, covering the entire agricultural value chain - input supply, production and distribution, wholesaling, processing and marketing. The NAC 2013/14 asked farmers whether they have access to credit or loans to develop their farms and as such to contribute to the agricultural value chain. Figure 8.1 shows that 23.9 percent of farmers applied for loan of which the majority 94.2 percent received the loan applied for and only 5.5 percent did not received the loan. At regional level, the majority of those who applied for loans were in Hardap region with 23.2 percent, followed by //Karas region with 19.7 percent of farmers, while the lowest applicants were in Oshikoto region accounting for 1.6 percent of the farmers in the region.

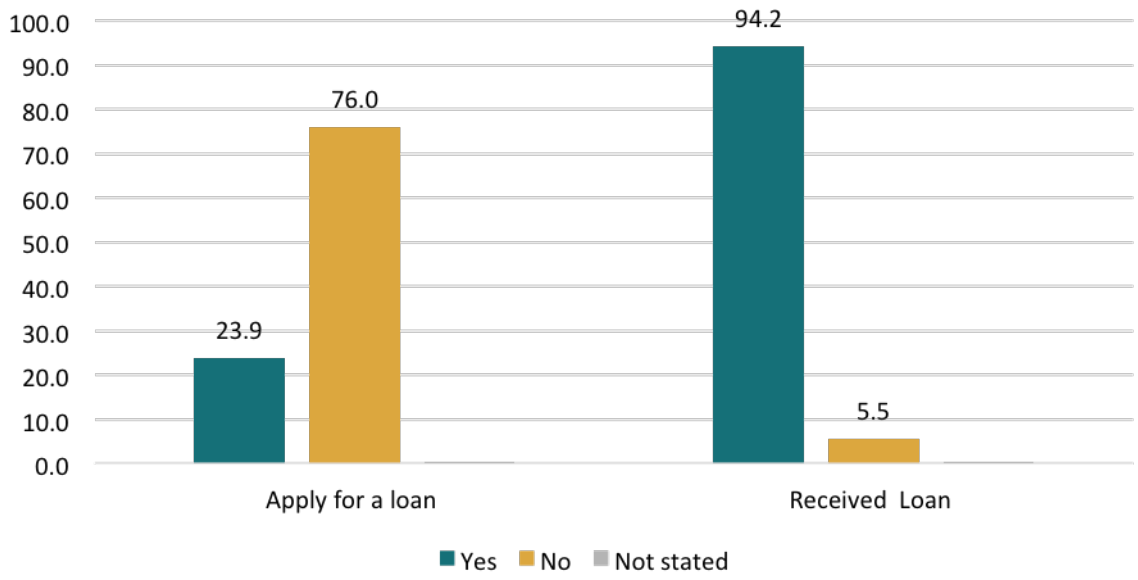


Figure 8.1: Farms by loan application and loan received

Table 8.1: Farms by application for a loan and region

Region	Farmer apply for loan					
	Yes		No		Total	
	Number	%	Number	%	Number	%
//Karas	157	19.7	308	12.1	465	14.0
Erongo	32	4.0	155	6.1	187	5.6
Hardap	185	23.2	667	26.3	852	25.6
Khomas	58	7.3	227	8.9	285	8.6
Kunene	85	10.7	198	7.8	283	8.5
Omaheke	129	16.2	250	9.9	379	11.4
Oshikoto	13	1.6	230	9.1	243	7.3
Otjozondjupa	137	17.2	502	19.8	639	19.2
Total	**796**	**100.0**	**2 537**	**100.0**	**3 333**	**100.0**

More than 20 percent of farm owners in Hardap and //Karas regions received the loan or credit compared to other regions.

Table 8.2: Farms by loan received and region

Region	Farmers received Loan /Credit					
	Yes		No		Total	
	Number	%	Number	%	Number	%
//Karas	150	20.0	5	11.4	155	19.5
Erongo	31	4.1	1	2.3	32	4.0
Hardap	175	23.3	10	22.7	185	23.3
Khomas	53	7.1	5	11.4	58	7.3
Kunene	73	9.7	12	27.3	85	10.7
Omaheke	126	16.8	3	6.8	129	16.2
Oshikoto	12	1.6	1	2.3	13	1.6
Otjozondjupa	130	17.3	7	15.9	137	17.3
Total	**750**	**100.0**	**44**	**100.0**	**794**	**100.0**

Table 8.3 depict that more than 49 percent of farm owners received loans or credit from Agribank and commercial banks, while less than 1 percent of farm owners received loans or credit from input suppliers, government, SME bank, Development bank of Namibia and micro financing institutions.

Table 8.3: Farms by source of loan

Source of loan	Number of farms	%
Commercial Banks	388	51.7
Input suppliers	4	0.5
Government	6	0.8
SME Bank	2	0.3
Agribank	370	49.3
Development Bank of Namibia	4	0.5
Micro Financing institutions	3	0.4
Family or Friends	17	2.3
Other	8	1.1
Total*	**750**	

Note: * The total is the number of farms that received a loan. This is not the total in the column as some farms gave multiple sources of loans

About 62 percent of farm owners revealed that the main purpose of the loan or credit was to procure livestock, followed by 22.5 percent of farm owners that reported that they use the loan to build infrastructure on their farms.

Table 8.4: Farms by purpose of loan

Purpose of loan	Number of farms	%
Agriculture laborer housing	63	8.4
Agro-chemicals	9	1.2
Irrigation structures	16	2.1
Apiculture	4	0.5
Housing	34	4.5
Debushing	67	8.9
Seeds	22	2.9
Farm machinery/implements	110	14.7
Livestock	471	62.8
Trading agriculture products	7	0.9
Infrastructure	169	22.5
Silo	0	0.0
Fertilizers	21	2.8
Vehicles	106	14.1
Aquaculture	4	0.5
Land	89	11.9
Fodder	67	8.9
Storage dams	20	2.7
Total*	**750**	

Note: * The total is the number of farms that received a loan. This is not the total in the column as some farms gave multiple purposes of loans

About 20 percent of farm owners used their farms as collateral when applying for their loans or credit in the past 12 months.

Table 8.5: Farms by type of collateral

Type of Collateral	Number of farms	%
None	101	13.5
Land Title	138	18.4
Crops	4	0.5
Livestock	113	15.1
Pension	9	1.2
Insurance Policy	25	3.3
Investment	23	3.1
House	48	6.4
Farm	153	20.4
Other	17	2.3
Total*	**750**	

Note: * The total is the number of farms that received a loan. This is not the total in the column as some farms gave multiple types of collateral

Farm owners were asked the reason why loan or credit was not granted and 22.7 percent indicated that the main reason was due to lack of collateral security, 4.5 percent due to ignorance and 2.3 percent due to bad financial credibility. More than 50 percent of farm owners indicated other reasons, which include documentation problems.

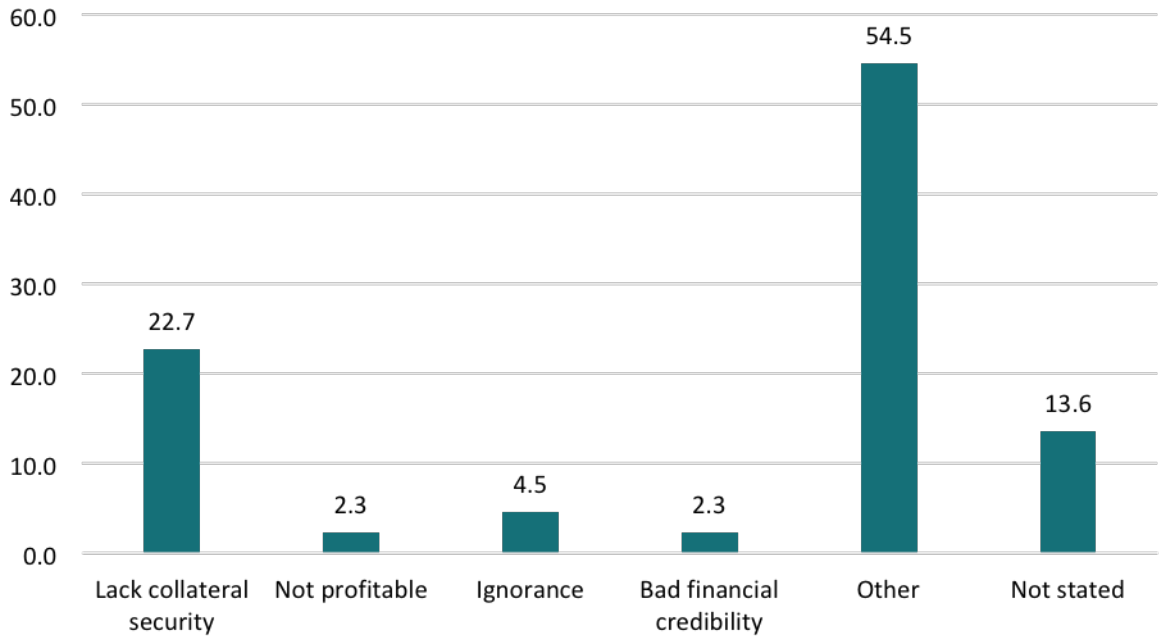


Figure 8.2: Farms by main reason why loan not granted



Section 9: Labour Inputs

Table 9.1 present the total work force on the farms during the past 12 months. The table revealed that 8 975 permanent workers, 2 621 temporary workers and 1 122 contract workers were employed by farm owners on their farms during the past 12 months. Furthermore, 2 272 unpaid household members were also employed by farm owners during the reference period. The largest workforce were farm labourers which constitute 7 451 permanent workers, 2 807 temporary workers and 1 121 contract workers.

Table 9.1: Farms by number of work force during the past 12 months

Type of workforce	Number of Paid Work Force						Number of Unpaid Work Force					
	Permanent workers			Temporary workers			Contract workers			Household members		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Management	438	142	580	43	9	52	11	3	14	244	213	457
Technical	356	47	403	139	23	162	5	0	5	14	8	22
Clerical	44	60	104	13	16	29	4	0	4	8	17	25
Farm Labourer	6 269	1 182	7 451	1 874	933	2 807	953	168	1 121	748	810	1 558
Other	460	334	794	55	23	78	84	10	94	134	102	236
Total	**7 336**	**1 639**	**8 975**	**1 859**	**762**	**2 621**	**985**	**137**	**1 122**	**1 132**	**1 140**	**2 272**



Section 10: Farm Buildings and Other Structures

Farm owners were asked to indicate whether their farms possess any storage facilities and Figure 10.1 shows that 41.4 percent of farm owners reported that they have storage facilities on their farms. At regional levels, Table 8.1 reveals that 22.8 percent of farmers in Otjozondjupa region reported having storage facilities, followed by farmers in Hardap region with 21.5 percent. In Erongo region only 6.1 percent of the farmers have indicated owning storage facilities in their farms.

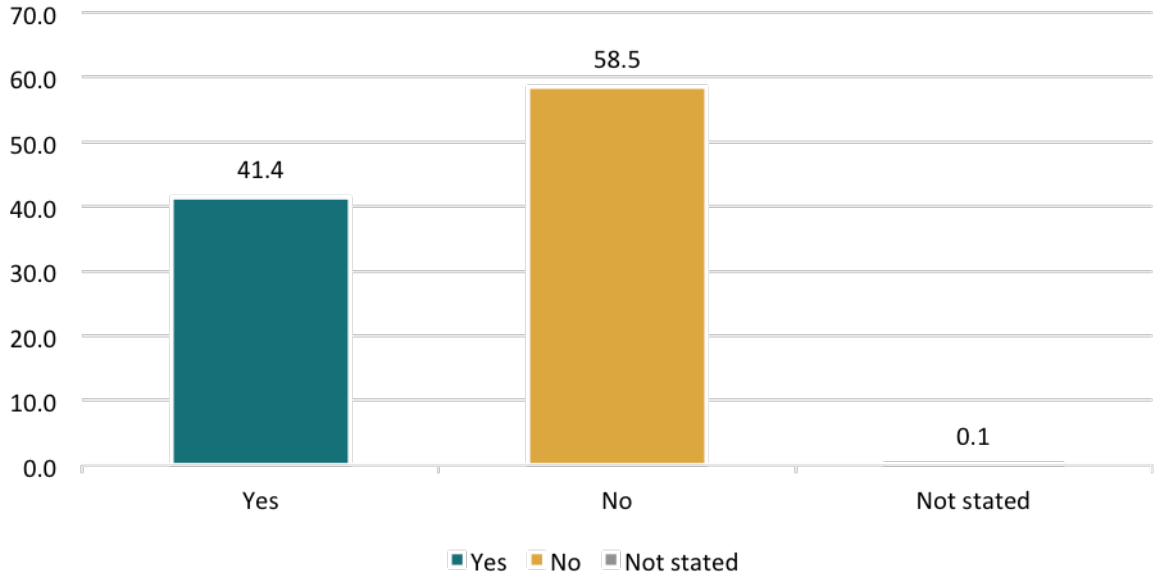


Figure 10.1: Farms by possession of storage facilities

Table 10.1: Number of farms that possess storage facilities by region

Region	Possess Storage Facility					
	Yes		No		Total	
	Number	%	Number	%	Number	%
//Karas	190	14.2	251	13.1	441	13.5
Erongo	82	6.1	100	5.2	182	5.6
Hardap	288	21.5	549	28.6	837	25.7
Khomas	119	8.9	163	8.5	282	8.7
Kunene	108	8.1	176	9.2	284	8.7
Omaheke	160	12.0	215	11.2	375	11.5
Oshikoto	86	6.4	156	8.1	242	7.4
Otjozondjupa	305	22.8	307	16.0	612	18.8
Total	**1338**	**100.0**	**1917**	**100.0**	**3255**	**100.0**

Table 10.2 shows that 58.8 percent of farms use their storage facility for storage of goods, while only 1.7 percent revealed that they use the storage facilities on their farms for silo.

Table 10.2: Number of farms by type of storage facilities

Type of storage facility	Number	%
Unimproved granary	64	4.6
Improved granary	51	3.7
Under shelter outside	341	24.7
Silo	24	1.7
Cold Storage	268	19.4
Sealed Container	55	4.0
Store	813	58.8
Warehouse	300	21.7
Other (Specify)	382	27.6
Total*	**1 382**	

Note: * The total is the number of farms that possess storage facilities. This is not the total in the column as some farms gave multiple storage facilities

Furthermore, farm owners were asked whether there exist any other buildings on their farms and Figure 10.2 shows that 62.8 percent of farm owners indicated that they have buildings on their farms. More than 21 percent of farms in Otjozondjupa and Hardap region indicated that they have other buildings on their farms.

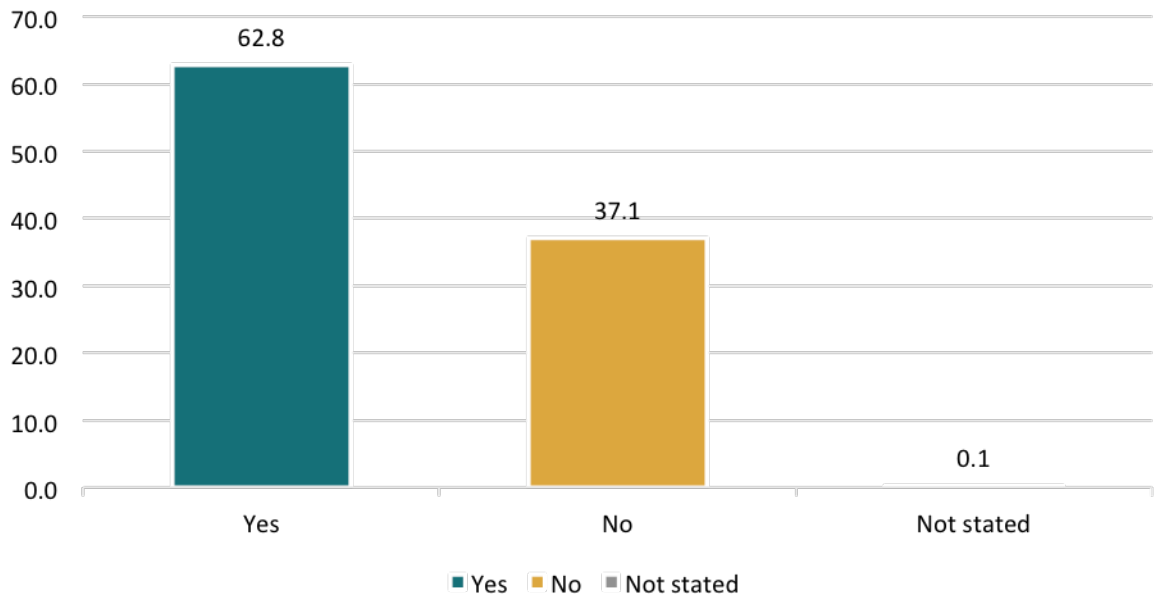


Figure 10.2: Farms by existence of buildings on the farm

Table 10.3: Farms by existence of buildings on the farm and region

Region	Any other building exist on the farm					
	Yes		No		Total	
	Number	%	Number	%	Number	%
//Karas	304	14.9	136	11.2	440	13.5
Erongo	121	5.9	61	5.0	182	5.6
Hardap	431	21.2	406	33.3	837	25.7
Khomas	203	10.0	79	6.5	282	8.7
Kunene	203	10.0	81	6.7	284	8.7
Omaheke	211	10.4	164	13.5	375	11.5
Oshikoto	130	6.4	112	9.2	242	7.4
Otjozondjupa	433	21.3	179	14.7	612	18.8
Total	**2 036**	**100.0**	**1218**	**100.0**	**3254**	**100.0**



Section 11: Machinery and Equipment

Table 11.1 present the number of farms by usage of agricultural machinery or equipment during the past 12 months. The table shows that more than 50 percent of farms used axes, wheelbarrows and spades, while about 44 percent of farms used pangas during the past 12 months.

Table 11.1: Farms by Type of agricultural machinery/equipment used during the past 12 months

Type of Machinery/Equipment	Number of farms	%
Hoes	684	20.5
Axes	1 820	54.5
Slashers	308	9.2
Pangas	1 489	44.6
Watering cans	796	23.9
Wheelbarrows	1 763	52.8
Pruning knives	430	12.9
Pruning saws	498	14.9
Chain/band saw	540	16.2
Sheller	31	0.9
Spade	1 953	58.5
Fork hoe	707	21.2
Tractor	890	26.7
Combined harvester	86	2.6
Plough	356	10.7
Ox_Plough	79	2.4
Trailer	942	28.2
Harrow/Cultivator	78	2.3
Weeder	53	1.6
Planter	158	4.7
Sprayer	186	5.6
Total*	**3 337**	

Note: * The total is the number of farms. This is not the total in the column as some farms gave multiple agricultural machinery/equipment

Table 11.2 shows that chain or band saws was owned by all the farmers that used them in the past 12 months. More than 80 percent of farm owners owned in the past 12 months axes, slashers, pangas, water cans, wheelbarrows, pruning knives, spades, ox ploughs, trailers, feeders, planters and sprayers.

Table 11.2: Farms by usage of agricultural machinery/equipment

Type of Machinery/Equipment	Number used in the last 12 months	Total used solely owned by farm	Percent owned
Hoes	2 514	1 928	76.7
Axes	5 806	4 948	85.2
Slashers	835	730	87.4
Pangas	4 375	3 765	86.1
Watering cans	3 101	2 721	87.7
Wheelbarrows	3 592	3 162	88.0
Pruning knives	1 060	908	85.7
Pruning saws	940	750	79.8
Chain/band saw	698	698	100.0
Sheller	63	49	77.8
Spade	7 611	6 450	84.7
Fork hoe	1 511	1 204	79.7
Tractor	1 463	1 164	79.6
Combined harvester	115	91	79.1
Plough	480	374	77.9
Ox_Plough	94	80	85.1
Trailer	1 579	1 277	80.9
Harrow/Cultivator	98	77	78.6
Feeder	72	58	80.6
Planter	185	150	81.1
Sprayer	428	365	85.3

More than 80 percent of farm owners reported that Sheller, Harrow or Cultivators used on their farms were owned by other private owners (Table 11.3). Similarly, about 71 percent of pruning saws and ox ploughs used in their farms during the past 12 months were owned by other private owners.

Table 11.3: Farms by agricultural machinery/equipment and ownership status

Type of Machinery/ Equipment	Ownership status							
	Shared	Other Private owner	Borrowed	Government	Cooperative	NGO	Other	Total
	%	%	%	%	%	%	%	%
Hoes	17.1	51.9	3.2	3.8	0.6	0.6	22.8	100.0
Axes	14.8	56.9	3.0	1.7	0.5	0.7	22.4	100.0
Slashers	11.8	62.7	0.0	0.0	0.0	0.0	25.5	100.0
Pangas	14.8	55.7	3.1	2.2	0.6	0.3	23.3	100.0
Watering cans	14.0	56.2	2.2	1.7	1.1	0.0	24.7	100.0
Wheelbarrows	15.0	56.8	1.0	1.8	0.5	0.3	24.8	100.0
Pruning knives	10.7	62.1	2.9	1.0	0.0	1.0	22.3	100.0
Pruning saws	10.9	71.3	1.0	1.0	0.0	1.0	14.9	100.0
Chain/band saw	17.7	49.2	2.3	0.8	1.5	0.0	28.5	100.0
Sheller	0.0	87.5	0.0	0.0	0.0	0.0	12.5	100.0
Spade	14.3	57.0	1.6	2.0	0.4	0.4	24.2	100.0
Fork hoe	13.5	51.0	1.3	4.5	1.9	1.3	26.5	100.0
Tractor	15.3	55.3	3.7	6.8	0.0	1.1	17.9	100.0
Combined harvester	22.2	61.1	5.6	0.0	0.0	0.0	11.1	100.0
Plough	14.9	55.4	6.8	9.5	0.0	0.0	13.5	100.0
Ox Plough	4.8	71.4	0.0	9.5	0.0	0.0	14.3	100.0
Trailer	10.9	59.6	3.1	4.1	0.5	0.0	21.8	100.0
Harrow/Cultivator	5.9	82.4	0.0	0.0	0.0	0.0	11.8	100.0
Weeder	14.3	50.0	14.3	7.1	0.0	0.0	14.3	100.0
Planter	29.6	55.6	11.1	0.0	0.0	0.0	3.7	100.0
Sprayer	13.0	52.2	4.3	2.2	2.2	0.0	26.1	100.0

Most farmers over 40 percent, reported that hoes, axes, slashers, pangas and spades to be 1-4 years old. Similarly, over 40 % of farmers indicated that tractors, combined harvester, plough, trailer, harrow cultivator, weeders and planters used in their farms were more than 10 years old.

Table 11.4: Distribution of farms by type of agricultural machinery/equipment and number of years bought

Type of Machinery/ Equipment	Number of years bought				
	Less than 1 year ago	1-4 years ago	5-10 years ago	More than 10 years ago	Total
	%	%	%	%	%
Hoes	16.5	43.7	19.2	20.5	100.0
Axes	17.1	41.8	19.5	21.6	100.0
Slashers	19.5	44.1	19.1	17.4	100.0
Pangas	21.1	44.2	19.2	15.5	100.0
Watering cans	16.2	36.4	25.1	22.3	100.0
Wheelbarrows	10.8	39.3	23.2	26.6	100.0
Pruning knives	18.3	39.8	19.9	22.0	100.0
Pruning saws	15.0	36.9	29.8	18.3	100.0
Chain/band saw	14.4	35.3	24.7	25.5	100.0
Sheller	13.0	26.1	21.7	39.1	100.0
Spade	12.0	41.0	23.0	24.0	100.0
Fork hoe	11.8	38.9	23.1	26.2	100.0
Tractor	9.3	21.5	20.1	49.1	100.0
Combined harvester	10.0	30.0	11.7	48.3	100.0
Plough	4.1	22.8	21.2	51.9	100.0
Ox Plough	9.8	37.7	18.0	34.4	100.0
Trailer	6.5	22.4	23.3	47.9	100.0
Harrow/Cultivator	0.0	34.5	17.2	48.3	100.0
Weeder	5.1	33.3	12.8	48.7	100.0
Planter	6.3	32.1	13.4	47.3	100.0
Sprayer	9.9	40.8	19.1	30.3	100.0

On the type of livestock machinery used in the last 12 months, Table 11.5 shows that more than 50 percent of farms have used livestock branding iron, vaccinator gun, needles, castration ring applicators, ear tag applier, wirepuller and crowbars during the past 12 months.

Table 11.5: Farms by type of livestock machinery used during the last 12 months

Type of livestock machinery	Number of farms	%
Burdizzo (Castraring pliers)	1 370	41.1
Branding iron	1 887	56.5
Vaccinator gun	1 853	55.5
Needles	1 862	55.8
Weighing scales	804	24.1
Dehorning saw	729	21.8
Dehorning bolt	1 207	36.2
Castration ring applicators	1 680	50.3
Gates (Osplaan hekke)	485	14.5
Livestock feed grinder (mill)	391	11.7
Animal first aid box	738	22.1
Noose plier	953	28.6
Ear tag applicator	1 953	58.5
Wire puller (draadspanner)	1 809	54.2
Crowbar (koevoet)	1 751	52.5
Neck scissor	1 231	36.9
Scissors for nails	343	10.3
Scissors for wool	431	12.9
Mobile load bank (laaibank)	596	17.9
Other (specify)	93	2.8
Fixed load bank	17	0.5
Manga	14	0.4
Lick troughs	1	0.0
Total*	**3 337**	

Note: * The total is the number of farms. This is not the total in the column as some farms gave multiple livestock machinery/ equipment

More than 80 percent of the farm owners reported that they owned Burdizzo (Castraring pliers), Branding iron, Vaccinator gun, Weighing scales, Dehorning saw, Dehorning bolt, Gates, Livestock feed grinder (mill), Animal first aid box, Noose plier, Wire puller, Crowbar, Neck scissors, Scissors for nails, Scissors for wool, Mobile load bank, Fixed load bank and Mangas that they have used in the past 12 months.

Table 11.6: Farms by status of usage and ownership of livestock machinery

Type of livestock machinery	Number used in the last 12 months	Total used solely owned by farm	Percent owned
Burdizzo (Castraring pliers)	1 689	1 479	87.6
Branding iron	3 524	3 051	86.6
Vaccinator gun	3 386	2 886	85.2
Needles	55 885	41 574	74.4
Weighing scales	844	733	86.8
Dehorning saw	780	659	84.5
Dehorning bolt	1 771	1 547	87.4
Castration ring applicators	14 882	8 841	59.4
Gates (Osplaan hekke)	5 839	4 755	81.4
Livestock feed grinder (mill)	467	423	90.6
Animal first aid box	729	615	84.4
Noose plier	1 558	1 260	80.9
Ear tag applicator	9 360	5 945	63.5
Wire puller (draadspanner)	2 616	2 200	84.1
Crowbar (koevoet)	3 798	3 198	84.2
Neck scissor	1 879	1 600	85.2
Scissors for nails	438	357	81.5
Scissors for wool	1 338	1 141	85.3
Mobile load bank (laaibank)	614	498	81.1
Other (specify)	143	128	89.5
Fixed load bank	28	24	85.7
Manga	20	18	90.0
Lick troughs	5	5	100.0

Table 11.7 presents the proportion of farms by livestock machinery/equipment and ownership status. It is observed from the table that most (50 percent and above) livestock machinery or equipment are owned by other private owners.

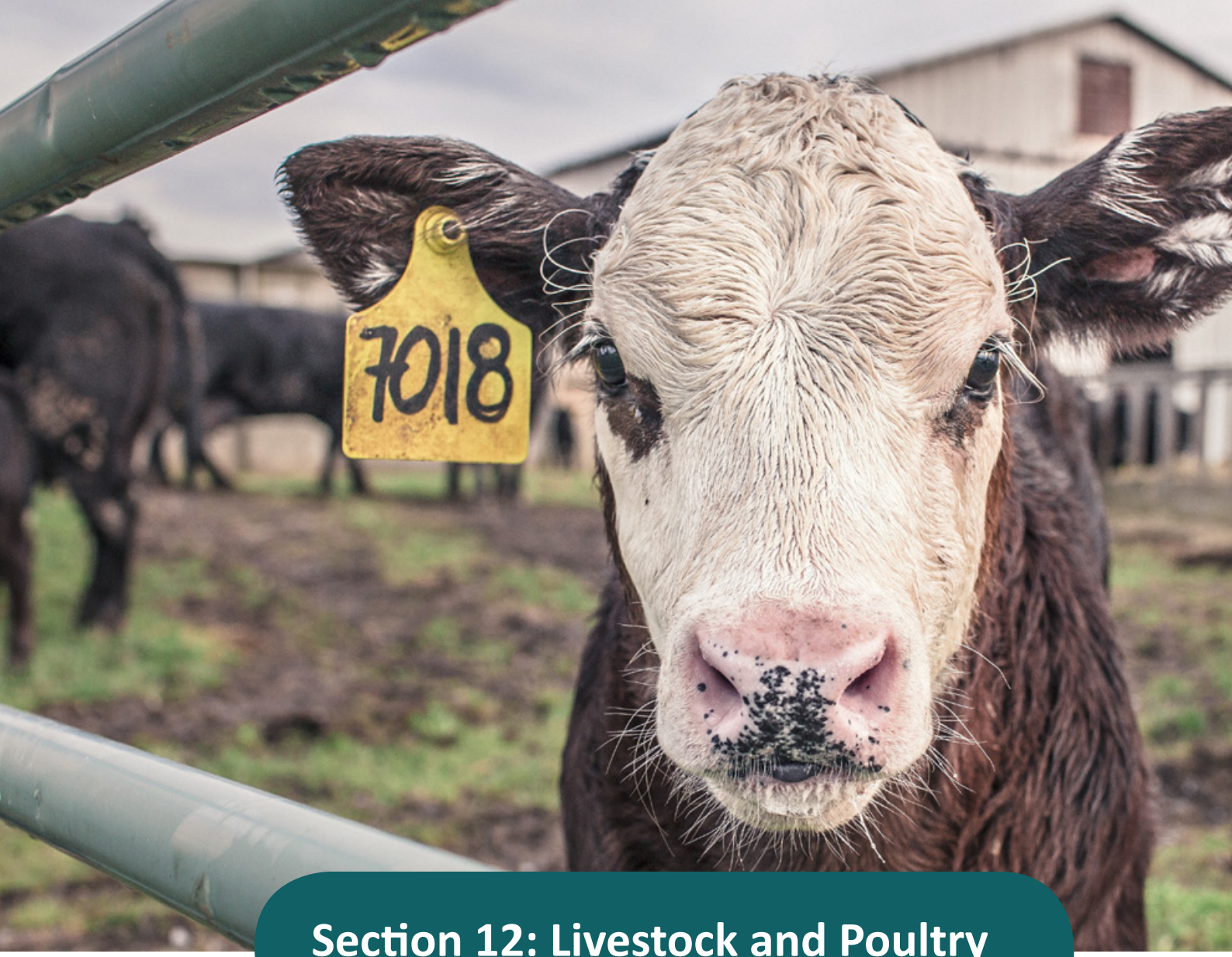
Table 11.7: Farms by livestock machinery/equipment and ownership status

Type of livestock machinery	Ownership Status							
	Shared	Other Private owner	Borrowed	Government	Cooperative	NGO	Other	Total
	%	%	%	%	%	%	%	%
Burdizzo (Castraring pliers)	14.2	58.5	2.8	2.8	0.3	0.0	21.5	100.0
Branding iron	13.8	58.8	1.0	1.0	0.5	0.3	24.8	100.0
Vaccinator gun	14.9	57.4	2.6	2.3	0.8	0.0	21.9	100.0
Needles	16.1	56.1	0.5	1.1	1.1	0.0	25.1	100.0
Weighing scales	16.0	59.0	1.4	2.8	0.7	0.0	20.1	100.0
Dehorning saw	21.1	46.6	5.6	0.6	1.2	0.0	24.8	100.0
Dehorning bolt	16.8	50.8	5.6	1.2	0.8	0.0	24.8	100.0
Castration ring applicators	16.8	53.2	3.5	1.5	1.2	0.0	23.8	100.0
Gates (Osplaan hekke)	7.4	46.3	1.1	14.7	0.0	0.0	29.5	100.0
Livestock feed grinder (mill)	21.3	53.3	0.0	1.3	1.3	0.0	22.7	100.0
Animal first aid box	21.3	53.3	0.0	1.3	1.3	0.0	22.7	100.0
Noose plier	14.9	54.6	1.7	0.6	0.6	0.0	27.6	100.0
Ear tag applicator	16.3	51.5	4.4	1.7	0.7	0.2	25.2	100.0
Wire puller (draadspanner)	14.5	52.1	3.8	1.6	0.8	0.3	26.8	100.0
Crowbar (koevoet)	13.2	56.2	2.4	1.8	0.9	0.0	25.5	100.0
Neck scissor	18.3	50.7	2.7	3.2	0.9	0.0	24.2	100.0
Scissors for nails	13.3	55.0	0.0	0.0	0.0	0.0	31.7	100.0
Scissors for wool	15.1	63.4	2.2	2.2	0.0	0.0	17.2	100.0
Mobile load bank (laaibank)	16.4	50.9	4.5	5.5	0.0	0.9	21.8	100.0
Other (specify)	9.1	45.5	0.0	13.6	4.5	0.0	27.3	100.0
Fixed load bank	16.7	50.0	0.0	16.7	0.0	0.0	16.7	100.0
Manga	20.0	60.0	0.0	0.0	0.0	0.0	20.0	100.0

In addition, about 44 percent of farm owners reported that their mangas were 1-4 years old, while more 50 percent of farm owners indicated that gates, livestock feed grinder, neck scissors and mobile load banks were more than 10 years old.

Table 11.8: Distribution of farms by livestock machinery/equipment and number of years bought

Type of livestock machinery	Number of Years Bought				
	Less than 1 year ago	1-4 years ago	5-10 years ago	More than 10 years ago	Total
	%	%	%	%	%
Burdizzo (Castraring pliers)	6.8	29.8	25.1	38.3	100.0
Branding iron	8.4	28.1	24.2	39.3	100.0
Vaccinator gun	13.1	33.8	23.4	29.6	100.0
Needles	41.1	29.5	14.3	15.0	100.0
Weighing scales	7.0	25.2	26.6	41.1	100.0
Dehorning saw	11.9	32.9	24.1	31.1	100.0
Dehorning bolt	9.6	27.8	24.4	38.1	100.0
Castration ring applicators	14.4	28.7	22.4	34.4	100.0
Gates (Osplaan hekke)	9.2	18.8	19.0	52.4	100.0
Livestock feed grinder (mill)	5.4	23.8	17.2	53.6	100.0
Animal first aid box	24.9	31.4	19.9	23.7	100.0
Noose plier	10.2	26.7	22.3	40.8	100.0
Ear tag applicator	11.2	39.5	27.3	22.1	100.0
Wire puller (draadspanner)	10.2	25.9	24.9	39.0	100.0
Crowbar (koevoet)	5.7	21.9	23.0	49.4	100.0
Neck scissor	7.1	18.2	20.2	54.4	100.0
Scissors for nails	12.2	29.6	20.9	37.4	100.0
Scissors for wool	13.8	27.9	24.4	34.0	100.0
Mobile load bank (laaibank)	9.8	17.1	23.1	50.0	100.0
Other (specify)	13.8	20.0	23.1	43.1	100.0
Fixed load bank	6.7	20.0	33.3	40.0	100.0
Manga	11.1	44.4	11.1	33.3	100.0



Section 12: Livestock and Poultry

Farmers were asked whether they rear any livestock and or poultry on their farm and Figure 12.1 shows that 76.6 percent of farmers reported that they rear livestock and or poultry on their farms. At regional level, Table 12.1, indicates that 25 percent of farmers in Hardap region rear livestock and or poultry, whereas less than 10 percent of farms in Erongo, Khomas, Kunene and Oshikoto regions have indicated rearing livestock and or poultry on their farms.

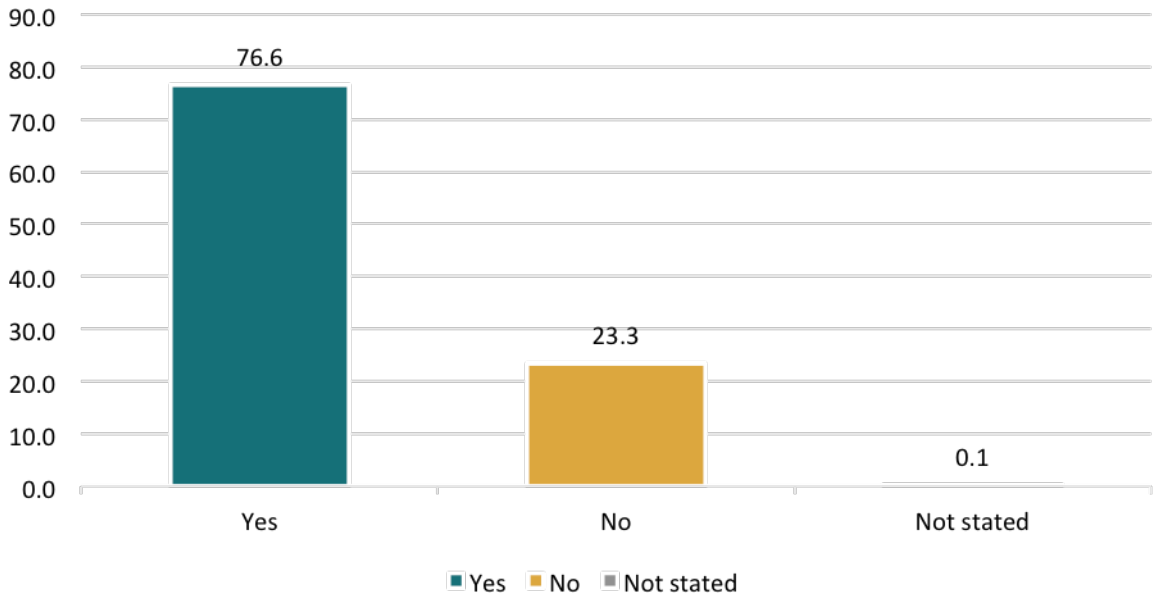


Figure 12.1: Farms by livestock and/or poultry rearing

Table 12.1: Farms by livestock and/or poultry rearing and region

Region	Rear Livestock and/or Poultry					
	Yes		No		Total	
	Number of farms	%	Number of farms	%	Number of farms	%
//Karas	390	15.3	75	9.6	465	13.9
Erongo	128	5.0	59	7.6	187	5.6
Hardap	638	25.0	214	27.5	852	25.6
Khomas	240	9.4	45	5.8	285	8.5
Kunene	243	9.5	41	5.3	284	8.5
Omaheke	306	12.0	73	9.4	379	11.4
Oshikoto	146	5.7	97	12.5	243	7.3
Otjozondjupa	464	18.2	175	22.5	639	19.2
Total	**2 555**	**100.0**	**779**	**100.0**	**3 334**	**100.0**

About 33 percent of farmers reported that they rear Brahman cattle on their farm, followed by Bonsmara with 24.7 percent and Simentaler, 21.3 percent.

Table 12.2: Farms by type of cattle

Type of cattle	Number of farms	%
Simentaler	544	21.3
Brahman	856	33.5
Bonsmara	630	24.7
Afrikaners	156	6.1
Simbra	361	14.1
Jersey	117	4.6
Hereford	32	1.3
Nguni	200	7.8
Brown swiss	144	5.6
Lemousin	70	2.7
Frisian	27	1.1
Angus	15	0.6
Beefmaster	19	0.7
Charolais	20	0.8
Cross breed	495	19.4
Dexter	18	0.7
Santa	38	1.5
Sussex	19	0.7
No cattle	35	1.4
Other	840	32.9
Total*	**2 555**	

Note: * The total is the number of farms that rear livestock/poultry. This is not the total in the column as some farms gave multiple types of cattle reared

In total, 351 913 cattle were reared during the past 12 months in Namibia and 85 905 cattle's were marketed during the past 12 months (Table 12.3). Furthermore, about a quarter (24.5%) of the total number of cattle reared or kept was marketed during the past 12 months, with approximately 50 percent of Simentalers marketed, while 6.3 percent of Brown Swiss were marketed during the past 12 months.

Table 12.3: Farms by the total number of cattle and number of cattle marketed during the past 12 months

Type of cattle	Total number of cattle							Number of cattle marketed				
	Bulls	Cows	Heifers	Calves < 1 year	Tollies 1-3 Years	Oxen	Total Kept	Live	Local butchers	Export abattoirs	Total Marketed	% Marketed
Simentaler	1 389	20 223	6 375	10 203	5 140	1 741	45 071	7 017	2 521	12 826	22 364	49.6
Brahman	2 727	29 441	8 358	15 086	8 281	3 293	67 186	9 012	1 297	3 522	13 831	20.6
Bonsmara	2 227	28 758	9 106	15 395	7 619	2 340	65 445	9 047	1 068	3 511	13 626	20.8
Afrikaners	200	5 138	1 337	2 080	789	150	9 694	1 637	77	241	1 955	20.2
Simbra	1 501	21 453	7 973	13 200	6 368	2 980	53 475	6 464	371	4 421	11 256	21.0
Jersey	74	686	187	318	97	94	1 456	204	40	21	265	18.2
Hereford	159	731	299	346	93		1 628	174		107	281	17.3
Nguni	351	6 860	2 035	3 307	1 841	500	14 894	2 426	524	621	3 571	24.0
Brown Swiss	207	2 855	552	1 136	233	185	5 168	196	27	100	323	6.3
Lemousin	202	1 063	300	655	307	13	2 540	199	31	101	331	13.0
Frisian	36	239	78	90	94	18	555	161	20		181	32.6
Angus	21	692	141	325	77	14	1 270	144	16	70	230	18.1
Beefmaster	185	2 640	579	1 713	593	293	6 003	1 109	91	120	1 320	22.0
Charolais	44	660	179	244	120	67	1 314	264		50	314	23.9
Cross breed	1 111	29 784	9 597	15 092	10 148	3 485	69 217	10 424	1 162	3 041	14 627	21.1
Dexter	19	209	73	79	16		396	26	29		55	13.9
Santa	166	2 304	490	1 239	346	58	4 603	710		180	890	19.3
Sussex	145	905	242	462	216	28	1 998	199	156	130	485	24.3
Total	**10 764**	**154 641**	**47 901**	**80 970**	**42 378**	**15 259**	**351 913**	**49 413**	**7 430**	**29 062**	**85 905**	**24.4**

Table 12.4 shows that 40.5 percent of farms reported that they reared Boerbok goats during the past 12 months, followed by Dorper sheep, 26.2 percent. Less than 1 percent reared Savanna goats during the past 12 months.

Table 12.4: Farms by type of small stock reared during the past 12 months

Type of small stock	Number of farms	%
Goats		
Boerbok	1036	40.5
Kalahari red	58	2.3
Savanna	21	0.8
Other goats	325	12.7
Sheep		
Swakara	171	6.7
Damara	355	13.9
Dorper	670	26.2
Meatmaster	75	2.9
Persian	120	4.7
Other sheep	447	17.5
Total*	**2 555**	

Note: * The total is the number of farms. This is not the total in the column as some farms gave multiple types of small stock

The result in table 12.5 shows that a total of 140 882 goats were reported to be reared in Namibia during the reference period, with 32 524 goats marketed, representing a 23.1 percent of the total goats reared in Namibia. Boerbok goats were the largest goats reared on farms in Namibia totaling 116 184 of which 28 492 were marketed during the reference period, accounting for 24.5 percent. Similarly, 14.6 percent of Savanna goats were marketed during the past 12 months.

Table 12.5: Farms by number of goats marketed during the past 12 months

Type of goats	Number of goats	Number of goats marketed				
		Marketed live	Marketed Local Butchers	Marketed Export Abattoirs	Total Marketed	% Marketed
Boerbok	116 184	26 053	1 073	1 366	28 492	24.5
Kalahari red	1 985	183	144		327	16.5
Savanna	869	90	37		127	14.6
Other goats	21 844	1 959	1 619		3 578	16.4
Total	**140 882**	**28 285**	**2 873**	**1 366**	**32 524**	**23.1**

Similarly, with respect to the sheep marketed, Table 12.6 shows that a total number of 629 108 sheep were reared in Namibia during the reference period, with 317 801 sheep marketed, representing 50.5 percent. The highest number of sheep reared were the Dorper totalling 406 463 of which 247 912 were marketed during the reference period, representing 61.8 percent. In addition, 10.1 percent of Swakara sheep were also marketed during the past 12 months.

Table 12.6: Farms by number of sheep marketed during the past 12 months

Type of sheep	Number of sheep	Number of sheep marketed				
		Marketed live	Marketed Local Butchers	Marketed Export Abattoirs	Total Marketed	% Marketed
Swakara	59 267	2 069	3 497	404	5 970	10.1
Damara	52 777	4 545	5 942	3 555	14 042	26.6
Dorper	401 463	72 451	105 017	70 444	247 912	61.8
Meatmaster	22 423	2 781	6 211	2 846	11 838	52.8
Persian	11 222	1 317	924	30	2 271	20.2
Other sheep	81 956	15 665	12 909	7 194	35 768	43.6
Total	**629 108**	**98 828**	**134 500**	**84 473**	**317 801**	**50.5**

Table 12.7 indicated that 29.8 percent of farms reared indigenous chickens on their farms, while less than 1 percent of farms reared guinea fowl and peacocks during the past 12 months.

Table 12.7: Farms by type of poultry reared during the past 12 months

Type of poultry	Number of farms	%
Indigenous chickens	761	29.8
Exotic chickens	40	1.6
Ducks	127	5.0
Geese	132	5.2
Turkeys	40	1.6
Guinea fowl	24	0.9
Pigeons	51	2.0
Peacock	10	0.4
Other	76	2.3
Total*	**2 555**	

Note: * The total is the number of farms. This is not the total in the column as some farms gave multiple types of poultry

Table 12.8 shows that 25 652 poultry was reared in Namibia of which 1 238 were marketed, representing 4.8 percent. In particular, 20 325 indigenous chickens were reared on farms in Namibia, of which 1 001 indigenous chickens were sold accounting for 4.9 percent. In addition, 10.3 percent of ducks were sold, with only 1.2 percent of pigeons sold during the past 12 months.

Table 12.8: Farms by type of poultry reared and marketed during the past 12 months

Type of poultry	Total Number of Poultry Reared	Total Number of Poultry Marketed	% Sold
Indigenous chickens	20 325	1 001	4.9
Exotic chickens	638	41	6.4
Ducks	991	102	10.3
Geese	979	41	4.2
Turkeys	249	24	9.6
Guinea fowl	289	8	2.8
Pigeons	1 520	18	1.2
Other	580	0	0.0
Peacock	81	3	3.7
Total	**25 652**	**1 238**	**4.8**

Farm owners were also asked whether any other domestic animals are reared on their farms and Table 12.9 shows that 49 percent of farms reported that dogs were reared on their farms, followed by horses, 40.6 percent of farms and donkeys, 29 percent of farms.

Table 12.9: Farms by type of other domestic animals reared during the past 12 months

Type of other domestic animals reared	Number of farms	%
Donkeys	740	29.0
Mules	118	4.6
Horses	1 037	40.6
Dogs	1 253	49.0
Cats	594	23.2
Pigs	43	1.7
Other	3	0.1
Total*	**2 555**	

Note: * The total is the number of farms. This is not the total in the column as some farms gave multiple types of other domestic animals

The total number of horses reared on farms in Namibia was 7 144 of which 173 were sold during the past 12 months. Furthermore, about 5 000 donkeys were reared of which only 256 were sold during the reference period.

Table 12.9: Farms by type of other domestic animals reared and sold during the past 12 months

Type of other domestic animals reared	Total Number of Domestic Animals Reared	Total Number of other Domestic Animals sold
Donkeys	5 004	256
Mules	282	2
Horses	7 144	173
Dogs	4 630	40
Cats	1 514	7
Pigs	577	58
Other	274	0
Total	**19 425**	**536**



Section 13: Aquaculture, Forestry, Beekeeping/ Apiculture and Agro-processing and Marketing

Farm owners were asked whether they are engaged in any fish farming during the past 12 months and Figure 13.1 shows that only 0.1 percent of farmers indicated engaging in fish farming. Furthermore, 20.4 percent of farms reported that there is a forest on their farms (Figure 13.2) and only 0.7 percent indicated that they undertake beekeeping practices on their farms (Figure 13.3).

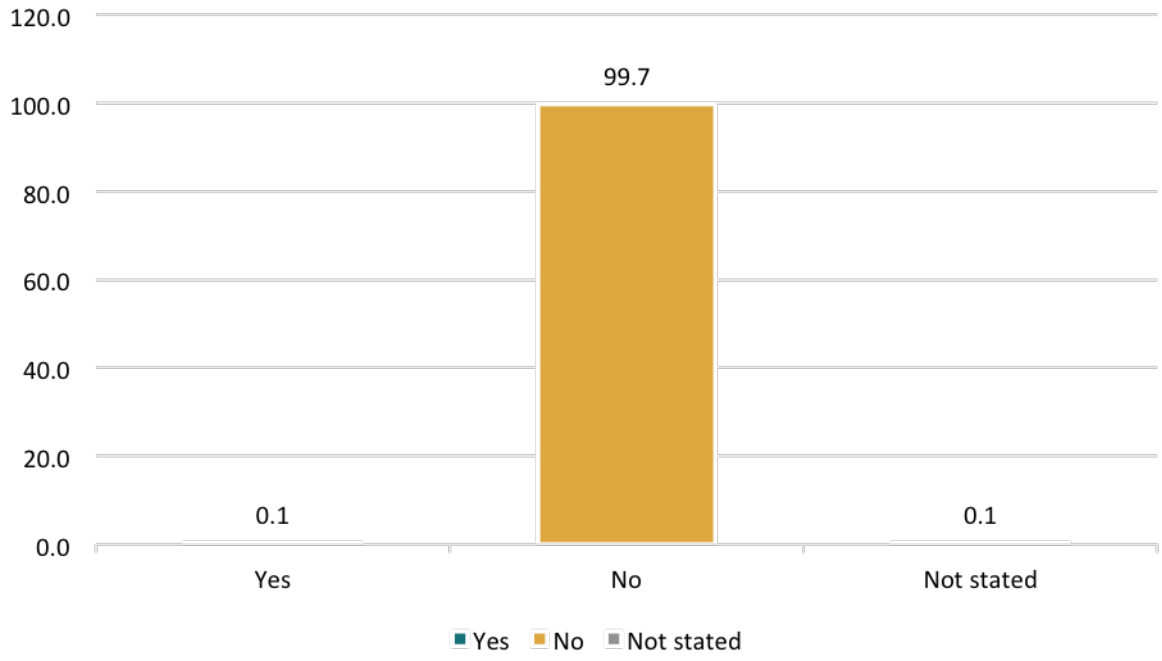


Figure 13.1: Farms by fish farming during the past 12 months

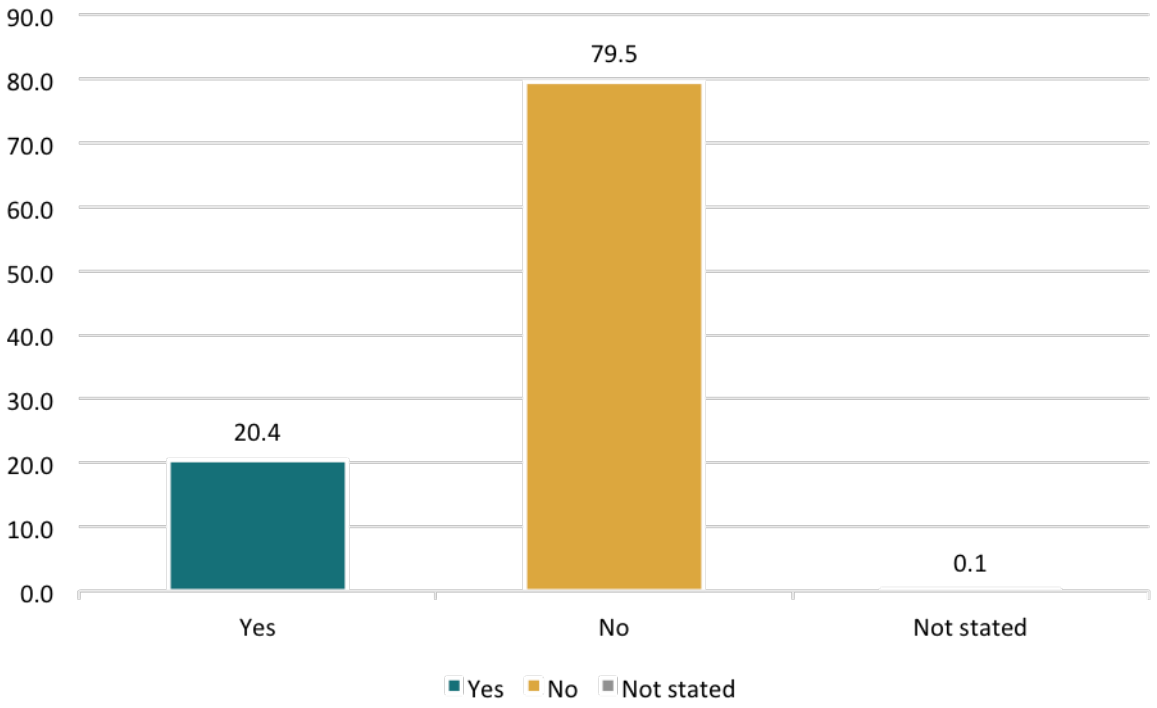


Figure 13.2: Farms by existence of forest

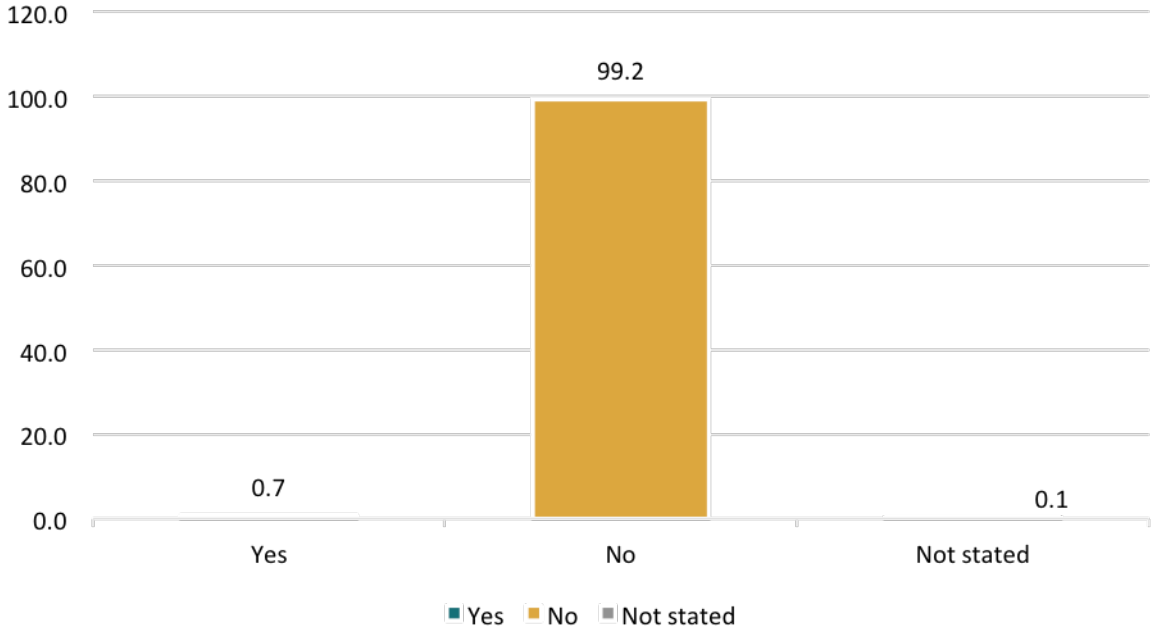


Figure 13.3: Farms by beekeeping practices on the farm

Appendix I: Glossary of Terms

Affirmative Action Loan Scheme (AALS): The AALS programme is a strategy of government coordinated through the Agricultural Bank of Namibia to redistribute commercial farmland to previously disadvantaged communities.

Affirmative Action Loan Scheme farm: It refers to a commercial farm acquired through the Affirmative Action Farm Loan Scheme for agricultural purposes.

Commercial farming: In commercial farming crops are grown and animals are reared for sale in the market that is, for commercial purposes, where advanced technology is mostly used to produce the food. The area cultivated and the amount of capital invested is large.

Commercial farm: For the purposes of this report, the commercial farm includes all private farms, resettlement farms, government farms as well as Affirmative Action Farm Loan Scheme farms.

Private commercial farm: It is a farm privately owned by an individual or group of individuals engaged in agricultural activities and producing mainly for the market.

Resettlement farm: It is a farm acquired through the resettlement program, for agricultural purposes.

Resettlement: Resettlement is a process of land allocation, which aims to ensure a fair and equitable distribution of agricultural (commercial) land to previously disadvantaged landless Namibian citizens, who do not own or otherwise have the use of agricultural land or adequate agricultural land.

Agricultural Extension Services: Provision of agricultural advice and information to farmers.

Agricultural inputs: Include seeds, plant material, water, fertilisers/pesticides and fuel.

Agro-processing: A process that transforms raw materials and intermediate products that originates from agriculture, forestry and fisheries sectors.

Apiculture: The maintenance of honey bee colonies, commonly in hives, by humans

Aquaculture: Farming of aquatic organisms including fish, crustaceans, molluscs and aquatic plants.

Arable land: land used in most years for growing temporary crops

Bee hive: Place in which a colony or colonies of bees are kept.

Cage culture system: Cage culture may also be considered as a kind of flow through system because water in the fish rearing cage units is always being exchanged with water from outside the cage.

Clay soil: A fine-grained soil that combines one or more clay minerals with traces of metal oxides and organic matter.

Cold Storage: Refrigerated storage, where the farmers are storing the goods in a refrigerated atmosphere.

Collateral: Assets pledged as security for a loan of money, in case the borrower defaults on the terms of the loan, the assets pledged may be sold and the proceeds used to pay off the loan.

Colonized: Bee hives which are occupied by bees.

Credit: Any type of loan received for purposes related to the operations of the agricultural holding.

Deforestation: Clearing of virgin forests, or intentional destruction or removal of trees and other vegetation for agricultural, commercial, housing, or firewood use without replanting (reforesting) and without allowing time for the forest to regenerate itself.

Drainage: Removal of excess water to improve agricultural productivity.

Delivery system: A means or procedure for providing a product or service to the public.

Distribution system: Encompass every aspect of getting your product to your customer. Distribution systems can be as simple as street vending or as complex and sophisticated as international shipping networks.

Earth pond: Pond that is sealed with soil such as clay. They have existed naturally throughout history of the planet and humans have been building earthen ponds ever since the first tools were invented.

Exotic livestock: Livestock introduced in the country from abroad.

Farm mechanization: The use of machinery and technology in the agriculture sector.

Forest land: Land with crown cover of more than 10% of trees able to reach a mature height of 5 meters or more. It includes natural and plantation forests.

Freehold: Outright ownership of property, the holding of an estate in land held for life or with the right to pass it on through inheritance. The title deed is the instrument of conveying a freehold interest. All freehold land is registered in the Deeds Registry. All commercial farms are referred to as freehold land.

Fungicides: Substances that destroy or control the growth of fungi.

Grazing land: A field covered with grass or herbage and suitable for grazing by livestock.

Herbicides: Substances used to destroy or inhibit the growth of undesirable plants such as weeds.

Horticulture: The art and science of growing fruits, vegetables, flowers or ornamental plants, also nuts, herbs, mushrooms, algae and seaweed.

Hybrid seeds: Seeds produced by cross-pollinated plants or cross-breeding two parent plants with those that have desirable traits.

Improved granary: A granary is a storehouse or room in a barn for threshed grain or animal feed constructed in such a way that rodents will not easily access the produce.

Inorganic fertilizers: Fertilizers prepared from inorganic materials manufactured through an industrial process.

Insecticides: Substances intended to prevent, destroy or control in plants or animals diseases and pests, including vectors of human and animal diseases, unwanted species of plants, or to control the behavior or physiology of pests or crops during production or storage.

Inter cropping: Multiple cropping practices involving growing two or more crops in proximity. The most common goal of intercropping is to produce a greater yield on a given piece of land by making use of resources that would otherwise not be utilized by a single crop.

Irrigation: Purposely providing land with water, other than rain, for agricultural purposes.

Land temporarily fallow: Arable land at prolonged rest before re-cultivation. Fallow land temporarily used for grazing should be classified as fallow if the land is normally used for growing temporary crops.

Land under permanent crops: Land cultivated with long-term crops which do not have to be replanted for several years.

Land under permanent pastures: Land used permanently (i.e. for five years or more), seeded and cared for or grown naturally (grazing land).

Land under temporary crops: Land under temporary crops includes all land used for crops with less than one year growing cycle.

Land under temporary pastures: Land use temporarily cultivated with pastures.

Land use: Activities such as growing crops, raising, livestock, cultivating fish, etc. - carried out on the land making up the holding with the intention of obtaining products and /or benefits.

Langstroth: Standard beehive used for beekeeping. Hives which have been provided with frames on which bees develop their honey combs.

Leasehold: A right to use and enjoy property for a fixed term and possession of the leased property will be subject to payment of rent to the Freeholder.

Loam soil: Composed of sand, silt, clay, and organic matter in evenly mixed particles of various sizes.

Machinery/Equipment: Machinery, implements and other facilities used on the farm.

Miller: A person who operates a mill, a machine to grind cereal crop to make flour.

NGO: Non-Governmental Organization; a private organization providing humanitarian aid or support to impoverished or economically underdeveloped nations/people.

Not Colonized: Bee hives which are not occupied by bees.

Nurseries: A place where young plants are grown and cared for.

Organic fertilizers: Fertilizers prepared from processed plant and animal material/waste.

Other wooded land with:

i. Crown cover of 5-10% for trees able to reach a mature of 5 meters or more at maturity; or

ii. Crown cover of more than 10% for trees not able to reach a height of 5 meters at maturity; or

iii. Shrub or bush covers of more than 10%

Permanent workers: Persons who has been hired for a position without a pre-determined time.

Private Commercial Farm: Is a farm where farmers engage in agricultural activities and producing mainly for the market.

Range land management: A professional field whose aim is to ensure a sustained yield of range land products while protecting and improving the basic range resources of soil, water, and plant and animal life.

Rented cash cropping: A system of agriculture in which a landowner allows a tenant to use the land in return for a share of the crops produced on the land.

Rodenticides: Substances that destroy, kill, repel or control rodents.

Sandy soil: Soil comprised of particles that are larger than 0.05 millimeters and smaller than 2 millimeters.

Sharecropping: The system of agriculture in which a landowner allows a tenant to use the land in return for a share of the crop produce on the land and an additional amount paid in monetary terms or equivalent.

Silo: Structure for storing bulk materials and is used in agriculture to store grain or fermented feed known as silage.

Soil erosion: The washing or blowing away (by wind or water) of the top layer of soil.

Store: A room where you can stock agriculture produce.

Temporal workers: Persons who work for a specific length of time or until a specific project is completed.

Terracing: A piece of sloped plane that has been cut into a series of successively receding flat surfaces or platforms, which resemble steps, for the purposes of more effective farming.

Top-bar hives: Single story frameless beehive in which the comb hangs from removable bars.

Unimproved granary: Is a special storage house which has been constructed in a traditional manner to avoid rodents from accessing the granary.

Unpaid household Members: Persons who care, caring for and helping household members.

Warehouse: Commercial building for storage raw materials or finished goods associated with agriculture.

Water pond: Body of standing water, either natural or man-made, that is usually smaller than a lake.

Windbreaks: Linear plantings of trees/shrubs designed to reduce wind speed in open fields, preventing soil erosion and protecting adjacent crops from wind damage.

Wood or Forest land: This include wood lots or tracts of timber, natural or planted, which have or will have value as wood, timber or other forest products. Nurseries of forest trees should also be classified under this category.

Appendix II: Questionnaire

SECTION C01: IDENTIFICATION

1	Region where Farm is Located	
2	Registration District of the Farm	
3	Administrative Region	
	(E.g. Khomas)	
4	Registration Division	
	(E.g. K)	
5	Farm Number	
	(as it appears on the Title Deed)	
6	Farm Size in Hectares. (full extent please)	
7	Farm Name	
	(as it appears on the Title Deed)	
8	Title Deed No.	
	(E.g.T1234/02 or R123/95)	
9	Full Name of registered Farm owner	
10	Sex of Farm owner	Male | Female
11	Nationality	
12	Mode of Farming	Full-time | Part-time
13	Postal Address of Farm owner	
14	Mobile/cellphone Number(s)	
15	Fax Number	
16	e-mail Address (if any)	

For Office Use only			
Region Code			
For Office Use only			

17	Do you reside permanently in Namibia?	Yes | No
		*(Mark with "X" whichever is applicable)
18	If not, where do you reside?	
19	Name of respondent	
20	Respondent position/ function on the farm	
21	Daytime phone number	
22	Mobile/cellphone Number(s)	
23	Email address (if any)	

24 24 What type of farmer are you? (Tick the appropriate)

Commercial farm	
Resettlement farm	
Affirmative Action Loan Scheme Farm	
Government farm	

25 **Please indicate the percentage contribution of income generated from the following farming practices wherever**

Large Stock	
Small Stock	
Crop production	
Agro marketing	
Fishing	
Trophy-hunting	
Lodge/accommodation	

Section C.02: Land Use

26 ***Did you operate any land during the past twelve months according to the*** ☐ Yes ☐ No

If "No" skip to the next page Section C03.

27 ***Please indicate the land use classes operated by the farm.***

Land Use Classes 1--Land under temporary crops	Area in hectares
c022701	c022702

28 What is the official carrying capacity of the farm (Ministry of Agriculture, Water and Forestry)?

29 What is the current/physical carrying capacity of the farm (from the land owner)?

This year		Last year		Previous year	
Large Stock Unit	Small Stock Unit	Large Stock Unit	Small Stock Unit	Large Stock Unit	Small Stock Unit
c022901	c022902	c022903	c022904	c022905	c022906

30 What was the average rainfall for the past 3 years (in mm)?

This year	Last year	Previous year
c023001	c023002	c023003
……mm	……mm	……mm

31 What is the size (if any) of land used for wildlife/game ranching (ha)?

……ha

32

Wildlife species (specify type and state the numbers)	
Type	Number
c0232201	c0232202
Kudu	
Warthog	
Giraffe	
Springbok	
Ostrich	
Zebra	
Leopard	
Others (Specify)……	

Section C.03: Farm Land

33 ***Specify by farm, the total land operated by the farm during the reference period***

Land Ownership 1--Free Hold 2--LeaseHold 3--Stateland 4--Other, Specify:……	 AREA (Ha)	Ownership 1--Owned 2--Rented sharecropping 3--Rented cash 4--Rented sharecrop including cash 5--Rented other 6--Not applicable
c033301	c033302	c033303

34 Type of soil cover and erosion

	Soil Erosion	
What type of soil cover is the farm land? 1--Sandy 2--Clay 3--Loam 4--Sandy/clay 5--Sandy/loamy 6--Clay/loamy 5--Other (Specify)	Is soil erosion a problem for the farmer? 1--Yes 2--No	If Yes, Why? 1--No terracing 2--Overgrazing 3--Deforestation 4--Other (Specify)……
c033401	c033402	c033403

Section C.04: Drainage-Irrigation

35 Was there Land drained and/or irrigated during the past 12 months? ☐ Yes ☐ No

If no go to Section C.05

36 ***Size of land drained and irrigated***

Specify the crop under drained land	Area of land that is drained in HA	Specify the crop under irrigation land	Area of land irrigated in HA

37 Indicate the water source, delivery system and distribution system that were used for irrigation during the past 12 months

Water Source	What delivery system is used on the farm? (Write the applicable code from Code list 1)	What Distribution System is used on farm? (Write the applicable code from Code list 2)	What is the length of the distribution system (meters)?	What was the cost for the irrigation (N$)	How much water was used for irrigation? (cubic meters)
Lake					
River					
Spring					
Well					
Borehole					
Dam					
Tank					
Other (Specify)……					

38 ***Was advice sought on water source for irrigation?*** ☐ Yes ☐ No

If No then go to question 39

From whom was advise sought?

☐ Government ☐ NGO
☐ Private Agency ☐ Unions
☐ Other (Specify) .....

39 ***Was advice sought on distribution system for irrigatio*** ☐ Yes ☐ No

If No then go to question 40

From whom was advise sought?

☐ Government ☐ NGO
☐ Private Agency ☐ Unions
☐ Other (Specify) .....

40 ***Was advice sought on delivery system for irrigation?*** ☐ Yes ☐ No

If No then go to Section C.05

From whom was advise sought?

☐ Government ☐ NGO
☐ Private Agency ☐ Unions
☐ Other (Specify) .....

Section C.05: Agricultural Inputs and Extension Serices

41 ***Were there any agricultural inputs used for crops and/or livestock during the reference pe*** ☐ Yes ☐ No
If "No" go to 44

42 Crop inputs

Type of input used for crop	Indicate the type of input used. (Tick the appropriate box)	Main source of inputs used (Write down the code)	Quantity of inputs used	Unit of measurement for quantity indicated	Total value of Inputs used N$
Local seeds	☐				
Improved seeds	☐				
Hybrid seeds	☐				
Organic fertiliser	☐				
Inorganic fertiliser	☐				
Herbicides	☐				
Fungicides	☐				
Insecticides	☐				
Rodenticides	☐				
Other pesticides	☐				
Other inputs	☐				

Code: Sources of inputs

1--Own
2--Market
3--Cooperative
4--Government
5--Related organization
6--NGO
7--Input suppliers
8--Input dealers
9--Other

43 Livestock inputs

Type of input used for livestock	Indicate the type of input used. (Tick appropriate box)	Main source of inputs used (Write down the code)	Quantity of inputs used	Unit of measurement for quantity indicated	Total value of Inputs used N$
Vacine	☐				
Fodder	☐				
Salt Block	☐				
Lick supplement	☐				
Mineral supplement	☐				

44 If no inputs were used, give reason why inputs were not used? (Tick the appropriate box)

- ☐ No knowledge
- ☐ Too expensive
- ☐ Other (Specify).....
- ☐ Not available
- ☐ Don't see usefulness

45 Were there any agricultural extension services received by the farm during the past 12 mo ☐ Yes ☐ No

If "No", go to Section C.06

46 Agricultural extension services

What agricultural extension services were provided ?	**What agricultural extension services were provided ? (Tick all that apply)**	**Who Provided these Services? (Write the code)**
Farm Management	☐	
Selection of crop vari	☐	
Input Use	☐	
Credit	☐	
Farm mechanization	☐	
Animal health	☐	
Plant protection	☐	
Environmental conserv	☐	
Training	☐	
Marketing	☐	
Financial	☐	
Range Land Manageme	☐	
Lick Supplementation	☐	
Other (Specify).....	☐	

Code: Service provider

1--Government
2--Private Agency
3--NGO
4--Employed Specialist
5--Contracted Specialist
6--Own staff
7--Other

Section C.06: Crop Production and Sales

47 ***Crops harvested on the farm during the past 12 months.***

What type of crops did you plant?	Tick appropriate crop grown	Crop field area planted under dry land (Ha)	Crop field area planted under irrigation (Ha)	Quantity harvested under dry land (Kg)	Quantity harvested under irrigated land (Kg)	Quantity sold (Kg)	SALES (N$)
White Maize	☐						
Yellow Maize	☐						
Wheat	☐						
Fodder	☐						
Rice	☐						
Beans	☐						
Sunflower	☐						
Olives	☐						
Sorgum	☐						
Groundnuts	☐						
Other (specify).....	☐						

Were there any crop damage by pests and diseases? ☐ Yes ☐ No

If there were cop damage, what is the main reason for damage?

☐ No control measure ☐ No extension agent help

☐ Don't know ☐ Other (Specify) ……

48 ***Horticultural products harvested on the farm during the past 12 months.***

What type of Horticultural products did you grow?	Tick appropriate Horticultural Product grown	Horticulture area planted		Quantity Harvested		Quantity sold (Kg)	SALES (N$)
		Under dry land (Ha)	Under irrigation (Ha)	Quantity under dry land (Kg)	Quantity under irrigated land (Kg)		
Onions	☐						
Watermelon	☐						
Sweet melon	☐						
Tomatoes	☐						
Potatoes	☐						
Pumpkin	☐						
Butternut	☐						
Sweetcorn	☐						
Gem squash	☐						
Cabbage	☐						
Dates	☐						
Sweet potatoes	☐						
Peppers	☐						
Chilli	☐						
Cauliflower	☐						
Carrots	☐						
Broccolli	☐						
Cucumber	☐						
Asparagus	☐						
Spinach	☐						
Lettuce	☐						
Other specify:.....	☐						

Were there any horticultural product damage by pests and dise ☐ Yes ☐ No

If there were horticultural products damage, what is the main reason for damage?

☐ No control measure ☐ No extension agent help

☐ Don't know ☐ Other (Specify) .....

49 ***Fruits harvested on the farm during the past 12 months.***

What type of fruits products did you grow?	Tick appropriate fruit grown	Fruit field area planted		Quantity Harvested		Quantity sold (Kg.)	SALES (N$)
		Under dry land (Ha)	Under irrigation (Ha)	Quantity under dry land (Kg)	Quantity under irrigated land (Kg)		
Oranges	☐						
Lemon	☐						
Guava	☐						
Mango	☐						
Pawpaw	☐						
Naartjies	☐						
Avocado	☐						
Olives	☐						
Bananas	☐						
Apricot	☐						
Pineapple	☐						
Plums	☐						
Strawberries	☐						
Grapes	☐						
Other (Specify)	☐						

Were there any fruit damage by pests and diseases? ☐ Yes ☐ No

If there were fruit damage, what is the main reason for damage?

☐ No control measure ☐ No extension agent help

☐ Don't know ☐ Other (Specify) .....

Section C.07: Access to Credit/ Loan

50 Did the farm apply for a loan? ☐ Yes ☐ No If "No" go to Section C.08

51 Did the farm receive a Loan / Credit? ☐ Yes ☐ No If "No" go to 53

52 Loan/Credit information

From where did you get the loan? (Tick all that is applicable)

☐ Commercial Banks	☐ Agribank	☐ Micro Financing instiutions
☐ Input suppliers	☐ Self help group	☐ Family or friends
☐ Gvernment	☐ NGO	☐ Environmental Investment Fund
☐ SME Bank	☐ Development Bank of Namibia	☐ Others (Specify).....

For what purpose did you take the loan? (Tick the appropriate box)

☐ Agricultural labourer housing	☐ Seeds	☐ Fertilizers
☐ Agro-chemicals	☐ Farm machinery/implements	☐ Vehicles
☐ Irrigation structures	☐ Livestock	☐ Aquaculture
☐ Apiculture	☐ Trading agricultural products	☐ Land
☐ Housing	☐ Infrastructure	☐ Fodder
☐ Debushing	☐ Silo	☐ Storage dams

What was the loan amount (N$)?	What is the outstanding Amount in (N$)	Type of Collateral (Indicate the approprite codes)

Code for collateral

1--None
2--Land title
3--Crops
4--Livestock
5--Pension
6--Insurance Policy
7--Investment
8--House
9--Farm
7--Other

53 Why was the loan was not granted? (Tick the applicable box)

☐ Lack collateral security
☐ Not profitable
☐ Ignorance
☐ Bad financial credibility
☐ Other (Specify) .....

Section C.08: Labour Inputs

54 ***Work force on the farm during the past 12 months***

Type of workforce	Tick the appropriate type of workforce on this farm	Number of Paid Work force						Number of Unpaid Work force	
		Permanent workers		Temporary workers		Contract workers		Household members	
		Male	Female	Male	Female	Male	Female	Male	Female
Management	☐								
Technical	☐								
Clerical	☐								
Farm labourer	☐								
Other (Specify).....	☐								

55 Type of wokforce on the farm during the past 12 months

What kind of workforce is was on the farm?	Tick the appropriate kind of workforce on this farm	Wage per Hour		Persons older than 15 years						Persons 15 years and younger							
		Male	Female	Male			Female			Male				Female			
		Amount (N$/Hour)	Amount (N$/Hour)	Number	Basic wage of during the past 12 months (N$)	Total wages including rations during the past 12 months N$	Number	Basic wage of during the past 12 months (N$)	Total wages including rations during the past 12 months N$	Number	Basic wage of during the past 12 months (N$)	Basic wage of during the past 12 months (N$)	Total wages including rations during the past 12 months N$	Number	Basic wage of during the past 12 months (N$)	Basic wage of during the past 12 months (N$)	Total wages including rations during the past 12 months N$
Permanent workers	☐																
Temporary workers	☐																
Contract workers	☐																
Unpaid household members	☐																
Other, (Specify)	☐																

Section C.09: FARM BUILDINGS AND OTHER STRUCTURES

56 ***Does the farm possess storage facility?*** ☐ Yes ☐ No If "No" go to question 58

57 ***Storage facilities***

What type of storage Facility do you have on the farm?

Type of storage facilties	Tick all that apply	Volume of the storage facility (m^3)
Unimproved granary	☐	
Improved granary	☐	
Under shelter outside	☐	
Silo	☐	
Cold Storage	☐	
Sealed Container	☐	
Store	☐	
Warehouse	☐	
Other (Specify)……	☐	

58 ***Does any other buildings exist on the farm apart from the storage faciltities?*** ☐ Yes ☐ No If No, go to Section C.10

59 Building facilities

Type Building Facility	Tick all that apply	Number of buildings	Total area (m^2 ground cover)
Building(s) for cattle	☐		
Building(s) for pigs	☐		
Building(s) for goats/sheep	☐		
Building(s) for Horses/Mules	☐		
Building(s) for poultry	☐		
Building(s) for other animals	☐		
Greehouse(s)	☐		
Garage(s)	☐		
Engine rooms	☐		
Office/Administration building(s)	☐		
Residential buildings for employees	☐		
Lodges	☐		
Guest House	☐		
Other buildings related to production	☐		

Section C.10: Machinery and Equipment

60 Agricultural machineries/equipments used during the past 12 months

Type of Machineries/Equipments	Tick the appropriate type of machineries /equipment used	If the machinery/equipment was used during the past 12 months.....			
		How many were used?	Of the total used, how many solely owned by the farm?	Who are the owners of the machineries and equipments that were used but not solely owned by the farm? (Write down appropriate code from Code 1 list)	When was the most recent machinery/equipment item bought by the farm? (Write down appropriate code from Code 2 list)
Hoes	☐				
Axes	☐				
Slashers	☐				
Pangas	☐				
Watering cans	☐				
Wheelbarrows	☐				
Pruning knives	☐				
Pruning saws	☐				
Chain/band saw	☐				
Sheller	☐				
Spade	☐				
Fork hoe	☐				
Tractor	☐				
Combined harvester	☐				
Plough	☐				
Ox-plough	☐				
Trailer	☐				
Harrow/cultivator	☐				
Weeder	☐				
Planter	☐				
Sprayer	☐				
Pail	☐				
Other (Specify).....	☐				

Code 1: Ownership

1-- Shared
2--Other private owner
3-Borrowed
4--Government
5--Cooperative
6--NGO
7--Other

Code 2: Number of years

1--Less than 1 year ago
2--1- 4 years ago
3--5 - 10 years ago
4--More than 10 years ago

61 ***Agricultural livestock machineries/equipments used during the past 12 months***

Type of livestock Machineries/Equipments	Tick the appropriate type of machineries /equipment used	If the machinery/equipment was used during the past 12 months.....			
		How many were used?	Of the total used, how many solely owned by the farm?	Who are the owners of the machineries and equipments that were used but not solely owned by the farm? (Write down appropriate code from Code 1 list)	When was the most recent machinery/equipment item bought by the farm? (Write down appropriate code from Code 2 list)
Burdizzo (Castrating pliers	☐				
Branding Iron	☐				
Vaccinator gun	☐				
Needles	☐				
weighing scales	☐				
Dehorning saw	☐				
Dehorning bolt	☐				
Castration ring applicators	☐				
Gates (Opslaan hekke)	☐				
Livestock feed grinder (Mill)	☐				
Animal first aid box	☐				
Noose plier	☐				
Ear tag applicator	☐				
Wire puller (Draadspanner)	☐				
Crowbar (Koevoet)	☐				
Neck scissor	☐				
Scissors for nails	☐				
Scissors for wool	☐				
Mobile load bank (laaibank)	☐				
Other (Specify).....	☐				

Section C.11: Livestock & Poultry

62 Does the farm rear any livestock and/or poultry? ☐ Yes ☐ **No** **If No, go to Section C.12**

63 ***Cattle reared on the Farm***

What Type of cattle do you have on the Farm?	**Tick all type of cattle on the farm**	**Number of cattles on the farm**								**Local butchers (Number)**	**Export Abottoirs (Number)**	**Value of cattle marketed (N$)**
		Bulls	**Cows**	**Heifers**	**Fem calves < 1 year**	**Male calves < 1 year**	**Tollies 1-3 yrs**	**Oxen**				
Simentaler	☐											
Brahman	☐											
Bonsmara	☐											
Afrikaners	☐											
Simbra	☐											
Jersey	☐											
Hereford	☐											
Nguni	☐											
Brown swiss	☐											
Lemousin	☐											
Frisian	☐											
Others (Specify)….....	☐											
No cattle	☐											

64 ***Please Record the Number of Sheep and Goats reared on the Farm***

Type of smallstock	Which of the small stock is reared on the farm? (Tick appropriate box)	Indicate the Total Number of Sheep and Goats on the farm	Number of Sheep and Goats sold during the last 12 months	Number of smallstock marketed			Value of smallstock marketed (N$)
				Marketed live (Number)	Local butchers (Number)	Export Abottoirs (Number)	
Boerbok (Female)	☐						
Boerbok (Male)	☐						
Kalahari Red (Male)	☐						
Kalahari Red (Female)	☐						
Savanna (Male)	☐						
Savanna (Female)	☐						
Other Goats (Male)	☐						
Other Goats (Female)	☐						
Swakara (Male)	☐						
Swakara (Female)	☐						
Damara (Male)	☐						
Damara (Female)	☐						
Dorper (Male)	☐						
Dorper (Female)	☐						
Meatmaster (Male)	☐						
Meatmaster (Female)	☐						
Persian (Male)	☐						
Persian (Female)	☐						
Other Sheep (Male)	☐						
Other Sheep (Female)	☐						

65 ***Poultry reared on the Farm***

What of type of poultry do you have on the Farm?	Which of the poultry is reared on the farm? (Tick appropriate box)	Indicate the Total Number of Poultry you are Rearing	Number of Poultry sold during the last 12 months	Value of sales in N$
Indigenous Chickens	☐			
Exotic Chickens	☐			
Ducks	☐			
Geese	☐			
Turkeys	☐			
Guinea fowl	☐			
Pigeons	☐			
Others (Specify).....	☐			

66 ***Other domestic animals reared on the farm***

What other domestic animals do you have on the farm?	Which other domestic animals are reared on the farm? (Tick appropriate box)	Indicate the total number of other domestic animals you are rearing on the farm	Number of other domestic animals sold during the last 12 months	Value of sales in N$
Donkeys	☐			
Mules	☐			
Horses	☐			
Dogs	☐			
Cats	☐			
Pigs	☐			
Other (Specify) ……	☐			

Section C.12: Aquaculture

67 Was fish farming carried-out by this farm during the last 12 months? ☐ **Yes** ☐ **No** **If No, go to Section C.13**

68 Fish farming practices for complete Harvest

Type of System	Tick all type of fish system on the farm	Size of Unit/pond (m^2)	Indicate the number of Fish Stock reared on the farm				Production on last complete harvesting		Sales from last complete harvesting (N$)	Number of times of complete harvesting last 12 months
			Tilapia	Catfish	Carp	Other	Number of fish	Total weight (kg)		
Earth pond	☐									
Water pond	☐									
Cages	☐									
Natural enclosure	☐									
Other (Specify) ……..	☐									

69 Was there any partial harvest carried out on the farm? ☐ Yes ☐ No If No, go to Section C.13

Species	Tick all type of fish species reared on the farm	Production on last partial harvesting		Sales from last partial harvesting
		Number of fish	Total weight (kg)	(N$)
Tilapia	☐			
Catfish	☐			
Carp	☐			
Other, (Specify) ……	☐			

Section C.13: Forestry

70 **Is there a forest on your farm?** ☐ Yes ☐ No **If "No",** **Go to Section C.14**

71 Area of forest and other wooded land

Indicate the TYPE of forestry	Tick Appropriate	AREA (HA) (as primary land use)	AREA (HA) (as secondary land use)	TOTAL AREA (HA)
Forest	☐	.	.	.
Other wooded land	☐	.	.	.

72 What is the purpose of forest and wooded land? (Tick the appropriate box)

☐ Water Management	☐ Soil Management	☐ Conservation/Tourism	☐ Orchard
☐ Nurseries	☐ Biodiversity	☐ Bee keeping	☐ Fodder

73 Which food production is obtained from forest? (Tick whatever is applicable)

- ☐ Wild mushroom
- ☐ Game meat
- ☐ Grewia Flava (Berries)
- ☐ !Nara
- ☐ Mopane worms
- ☐ Other wild fruits (Specify) …….

74 What wood products is obtained from forest? (Tick the appropriate wood product)

- ☐ Charcoal
- ☐ Fire wood
- ☐ Fencing material
- ☐ Decorative material
- ☐ Sawn timber

75 **Which medicinal/cosmetic products are from forest? (Tick what is applicable)**

- ☐ Hoodia
- ☐ Devils claw
- ☐ !Nara
- ☐ Other (Specify) …….

76 **Do you practice agro-forestry? (Tick the relevant box)**

- ☐ Windbreaks
- ☐ Inter cropping
- ☐ Wood cover

77 How often do you make use of control burning? (Tick the appropriate box)

- ☐ Annual
- ☐ Biannual
- ☐ Every 5 years
- ☐ Every 10 years
- ☐ None

78 How often do you experience unwanted veld fires?

- ☐ Annual
- ☐ Biannual
- ☐ Every 5 years
- ☐ Every 10 years
- ☐ None

Section C.14: Bee keeping/Apiculture

79 Was there any beekeping practice on the farm during the last 12 month ☐ Yes ☐ No If No, go to Section C.14

80 Apiculture practice on the farm

Type of Bee Hives	Tick appropriate bee hive used on the farm	Number		Honey Production (Kg)	Value of sales in N$
		Colonized	Not Colonized		
Local	☐				
Top Bar	☐				
Langstroth	☐				
Other (Specify)……..	☐				

Section C.15: Agro-processing and Marketing

81 **Did the farm produce any animal products during the past** ☐ Yes ☐ No ***If "No" go to question 83***

82 **Animal products produced on the farm during the past 12 months**

Animal Products	Which animal products were produced on the farm? (Please indicate all that apply)	What is the total quantity of each animal product produced? (indicate the unit of measurement)	What is the value of domestic sales for each animal product produced? (N$)	What is the value of export sales for each animal product produced? (N$)
Pork	☐			
Beef	☐			
Goat (meat)	☐			
Lamb (meat)	☐			
Vanison	☐			
Milk (cow)	☐			
Eggs (number)	☐			
Hides and skin	☐			
Swakara pelts	☐			
Wool	☐			
Other (Specify).....	☐			

83 Did the farm produce any value added products during th ☐ Yes ☐ No *If No, go to question 85*

84 Value added products produced during the past 12 months

Value Added Products	**Which types of value added products were produced on the farm? (Tick the appropriate product)**	What is the quantity of value-added products produced? (Indicate the u**nit of measurement)**	Indicate the domestic sales value of the products (N$)	Indicate the export sales value of the products (N$)
Biltong	☐			
Dairy products	☐			
Baked goods	☐			
Maize meal	☐			
Millet flour (Mahangu)	☐			
Wheat flour	☐			
Jam	☐			
Herb vinegars, oil, etc.	☐			
Herb soap and body care products	☐			
Packaged fresh vegetables	☐			
Packaged fresh fruits	☐			
Pasteurize milk	☐			
Beverages and wine	☐			
(Specify).....	☐			

85 Does the farm engage in any fish processing? ☐ Yes ☐ No If "No"go to question 87

86 **Fish Products**

Type of fish products	Which products are produced by this farm? (Tick all that is applicable)	What the quantity fish products produced? (Kg)	What is the domestic sales value for each fish product? (N$)	What is the domestic sales value for each fish product? (N$)
Smoked fish	☐			
Salted and dried fish	☐			
Fish meal (Animal feed)	☐			
(Specify).....	☐			

87 Marketing channels of processed products.

Point of Sales	**At which sales point do you market the processed products? (Tick the appropriate box)**	**Where does the farm sell the processed product? (Please indicate selling point(s) with "X)**
Direct to Restaurants	☐	
Retail/Food stores	☐	
Regional Distributors	☐	
Wholesalers	☐	
Abattoirs	☐	
Millers	☐	
Open-air Markets	☐	
Auctions	☐	
Exports	☐	
Others (Specify).....	☐	

Notes

Notes

Namibia Statistics Agency





Contact Us

Namibia Statistics Agency
P.O. Box 2133, FGI House,
Post Street Mall,
Windhoek, Namibia

Tel: +264 61 431 3200
Fax: +264 61 431 3253

Email: info@nsa.org.na
www.nsa.org.na