REPUBLIC OF NAMIBIA

MINISTRY OF AGRICULTURE, WATER AND LAND REFORM

CROP PROSPECTS, FOOD SECURITY AND DROUGHT SITUATION REPORT-JULY 2023

This report is prepared by the Agro Business Information Services Unit. Since conditions may change rapidly, please contact the undersigned for further information if required.
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1. OVERVIEW

The Agro Business Information Services Unit in the Ministry of Agriculture, Water and Land Reform and the Namibia Meteorological Service, with the technical and financial assistance from the Food and Agricultural Organization of the United Nations (FAO) and the National Aeronautics and Space Administration (NASA Harvest) undertook the 2nd Crop and Household Food Security Monitoring Assessment (post-harvest) in the seven major communal crop-producing regions[1] from 08th May to 6th June 2023. The main purpose of the assessment was to assess and quantify the 2023 crop harvest in the major crop-growing regions of Namibia and provide early warning report on geographic locations of agronomic anomalies, the effects of floods/droughts, and other significant events. Moreover, the mission assessed changes in household food security, livestock, water supply and grazing conditions. Information regarding the agricultural situations in other regions of the country was gathered through reports from the Agricultural Extension staff in those regions. The assessment team was composed of the following staff:

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Since the situation may change, it should be noted herein that, this report presents the results of the assessment that took place during the abovementioned dates in the Zambezi, Kavango East, Kavango West, Omusati, Ohangwena, Oshana and Oshikoto regions, supplemented by reports from the Agricultural Extension staff in the Kunene, Omaheke, Otjozondjupa, //Karas, Erongo, Khomas and Hardap regions. Secondary information were also used in this report, specifically the crop production statistics in the commercial areas as obtained from the Namibian Agronomic Board (NAB), National Strategic Food Reserves (NSFR) stock levels from Agro Marketing and Trade Agency (AMTA) as well as dam levels from Namibia Water Corporation Ltd (NamWater).

[1]Zambezi, Kavango East, Kavango West, Omusati, Ohangwena, Oshana and Oshikoto

2. EXECUTIVE SUMMARY

This chapter highlights a summary of key findings of the Crop (post-harvest) and Household Food Security Monitoring Assessment.

Since the start of the 2022/2023 rainfall season, the country received below normal rainfall, with a considerable delay in the onset. Most parts of the country only received productive rainfall in January. In addition to sporadic and insufficient rainfall patterns that have dominated the season, the country noted a severe and prolonged dry spells in December, February, March and April, which led to poor agricultural production and pasture establishment.

The aggregate cereal analysis showed that, the country has recorded 153,000 Metric Tons (MT), which is 9% lower than the last season's harvest of 168,200MT but 23% above the 10 years' average production of 124,200MT. All the crop producing regions in the communal areas have recorded a significant decline in the crop harvest, contributing only about 20% to the national cereal production. This is attributed to the poor crop growing conditions that were seen in the forms of delayed onset of the rainfall season, erratic rainfall patterns and prolonged dry spells. On contrary, the commercial area alone witnessed an improvement in the harvest, contributing about 80% to the national cereal production. This improvement was primarily attributed to a notable increase in the planted area by numerous commercial producers.

The food security situation has significantly deteriorated as a result of a highly unfavourable agricultural production conditions during the 2022/2023 cropping season. It has been observed that the majority of crop farmers have experienced crop failure, which has consequently severely impeded their ability to replenish their food reserves. A considerable number of households in the key communal crop producing regions have reported a depletion of their harvest from the previous season, and they are now relying mainly on the market and drought relief food in some regions, for sustenance. In addition, it is projected that the recent harvest will be exhausted between August and December 2023, leaving these households in a precarious state of food insecurity.

Grazing condition in most parts of the country has significantly become limited which is largely attributed to poor rainfall conditions and dry spells which have dominated the 2022/2023 rainfall season. The overall water supply situation is a major concern in many areas of the county, due to poor rainfall received for the season. As such, most water catchment areas have already dried up as they did not receive enough water inflow.

Based on the findings of this assessment, among others the following recommendations are made for possible interventions and future assistance:

- Government through the Office of the Prime Minister, should continue with the provision of the drought relief measures to households that are faced with food insecurity in Kunene, parts of Omusati and Erongo regions, Omaheke, //Kharas and Hardap regions, until the situation normalizes;

- Government to consider the roll- out of drought relief interventions (food assistance and Livestock Support Programme) across the remaining eight (8) regions, including the entire Omusati and Erongo regions;

- Government through the Ministry of Agriculture, Water and Land Reform to continue with, and fast track the process of construction, rehabilitation and excavation of earth dams and boreholes in areas where communities are faced with water shortages;

- Government through the Ministry of Agriculture, Water and Land Reform to ensure sufficient and timely provision of agricultural inputs (seed and fertilizers) and services (ploughing and planting) in preparation for the 2023/2024 cropping season;

- Government through the Ministry of Works and Transport (Namibia Meteorological Service) to strengthen capacity in accurate whether forecasting;

- Government through the Ministry of Environment, Forestry to Tourism to control the number of elephants and buffaloes in the conservancies in the Zambezi, Kavango East and Kavango West Region;

- Regional Councils to establish Regional Emergency Disaster Funds to strengthen the availability of resources;

- Regional Councils with the assistance of community leaders to continue identifying the most food insecure households in their respective regions.

Ndiyakupi Nghituwamata (Ms)
EXECUTIVE DIRECTOR

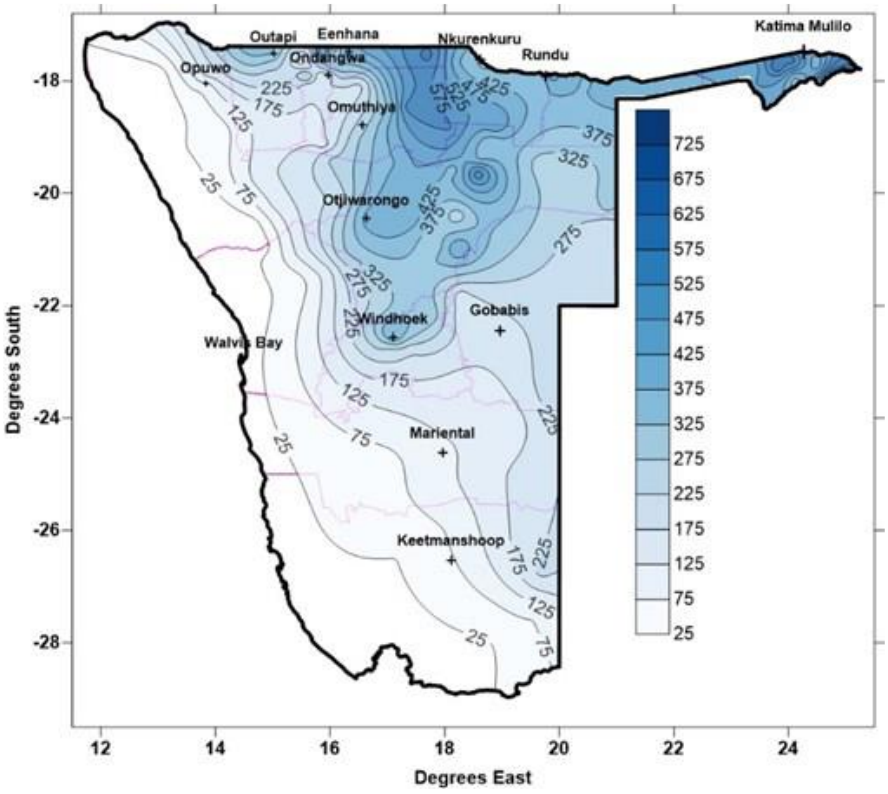
EXECUTIVE DIRECTOR
2023 -08- 07
Republic of Namibia
Ministry of Agriculture, Water and Land Reform

3. AGRO-METEOROLOGICAL INFORMATION

3.1. 2022/2023 Rainfall Performance for Namibia

Since the start of the 2022/2023 rainfall season, the country received below normal rainfall performance, with a considerable delay in the onset. Most parts of the country only received productive rainfall in January. In addition to sporadic and insufficient rainfall patterns that have dominated the season, the country noted a severe and prolonged dry spells in December, February, March and April, which led to poor agricultural production and pasture establishment. According to Namibia Meteorological Service, most of the above-average rainfall received in January lacked follow up rains and as a result, the bulk of the northern Regions ended the season with average rainfall. Moreover, the bulk of //Kharas, Hardap, Erongo, western of Omaheke, Kunene, Omusati, Oshana and western part of Oshikoto Regions ended the rainfall season with below average rainfall (see figure 1). There are some areas in Kunene and Erongo Region which did not receive any single drop of rainfall this season.

Figure 1. October 2022 to April 2023 rainfall in millimeters

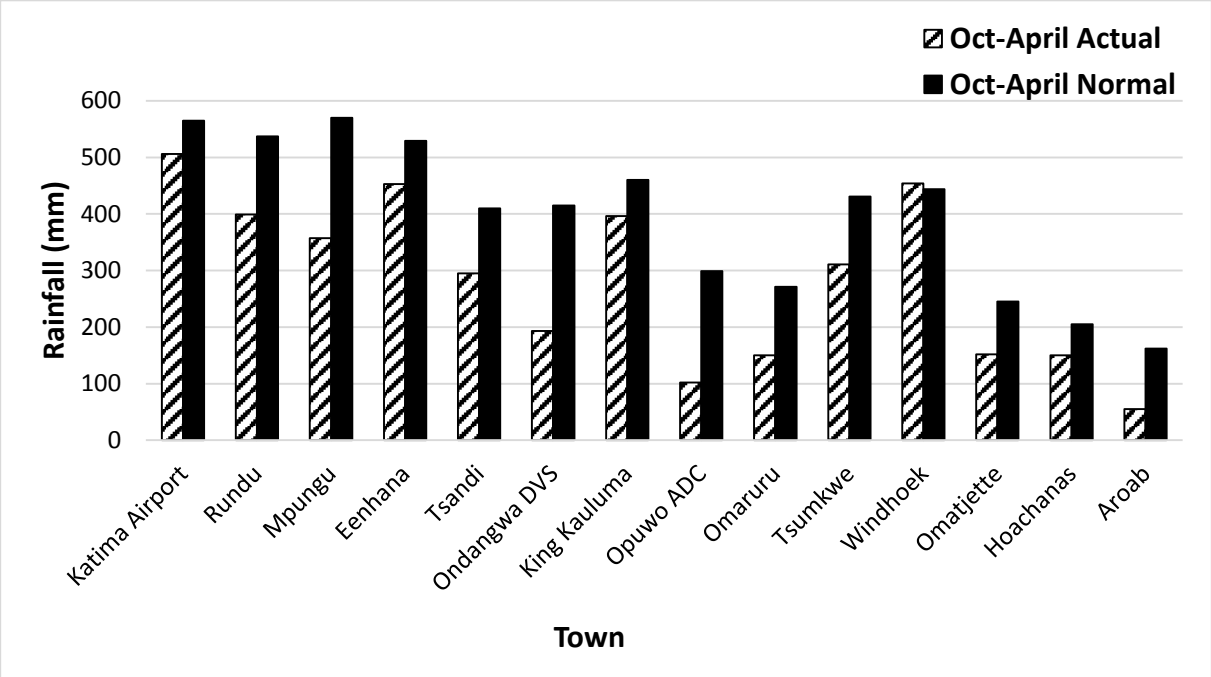


Source: Namibia Meteorological Service, 2023

The Zambezi, Kavango East, and Kavango West regions were not exempted from the erratic rainfall patterns, as they too experienced severe dry spells. As a result, crop production in these regions was significantly impacted. In addition to the regions that have been grappling with drought episodes in previous seasons (such as Kunene, parts of Erongo, and Omusati), the entire

country has been affected by the drought of the 2022/2023 season. Figure 2 below shows the rainfall performance from October 2022 to April 2023 in different parts of the country.

Figure 2: Rainfall Performance Chart: October 2022 to April 2023 relative to Normal in various areas of the country



Source: Meteorological Service of Namibia, 2023

During the October 2022 to April 2023 rainfall season, majority of locations across the country experienced below-normal rainfall, with the exception of Windhoek, which received slightly above-normal rainfall.

4. CROP PRODUCTION

All the crop producing regions in the communal area have recorded a significant decline in the crop harvest this season, following the unfavorable crop growing conditions experienced during the 2022/2023 cropping season. Productive rainfall was only received in January, and the overall performance of rainfall during the entire season was inadequate, characterized by sporadic, erratic, and insufficient rainfall. The revised crop estimate indicates a decline in the harvest, which is significantly below the last season. The aggregate cereal estimates showed that, the country has recorded 153,000 Metric Tons (MT), which is 9% lower than the last season's harvest of 168,200MT but 23% above the 10 years' average production of 124,200MT. Much of the cereal production came from the commercial area, including the Green Schemes with a contribution of 80% while the communal area only contributed 20% to the national cereal production for the 2022/2023 season.

Table 1 below indicates the aggregate cereal production from 2012/2013 to 2021/2022 cropping seasons. The table also indicates the harvest (highlighted in red) for the 2022/2023 cropping season, 10-year average, 2022/2023 production as percentage of the average and as percentage of 2021/2022-cropping season.

Table 1: National cereal production statistics trend (in '000 Metric Tons) and 2022/2023 production compared to a 10 – year average and 2021/2022 production.

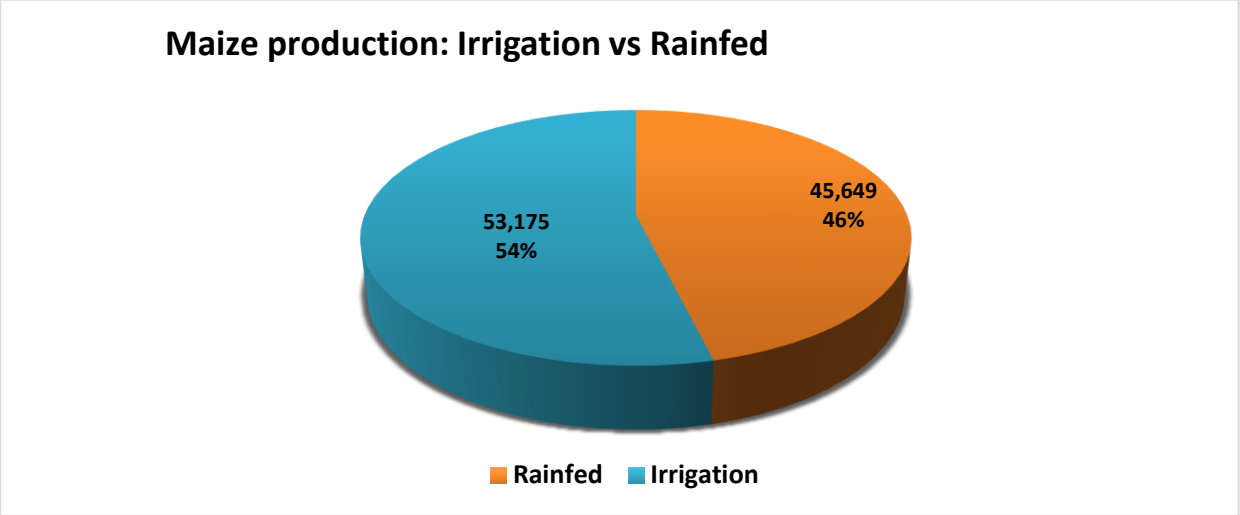
	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	10-year average	2022/23 as % of 10-years average	2022/23 as % of 2021/22 production
Maize (Communal)	2.5	5.2	1.4	1.2	6.3	6.9	1.3	8.5	11.5	8.0	6.8	5.3	29	-15
Maize (Commercial)	72.4	71.3	38.9	43.9	76.7	58.0	28.8	51.6	66.6	90.9	98.8	59.9	65	9
Pearl Millet	24.7	44.1	15.3	19.4	57.6	83.5	9.3	90.8	55.2	44.7	20.5	44.5	-54	-54
Sorghum	2.2	4.1	1.7	1.5	2.8	4.0	0.4	7.1	8.2	6.1	2.2	3.8	-41	-64
Wheat	14.8	11.3	11.6	11.4	9.8	6.9	7.5	4.5	11.5	18.5	24.7	10.8	130	34
Aggregate	**116.6**	**136.1**	**68.9**	**77.5**	**153.2**	**159.3**	**47.3**	**162.5**	**153.0**	168.2	**153.0**	**124.2**	**23**	**-9**

As indicated above, maize production in the communal area (Zambezi, Kavango East and Kavango West regions) recorded 6,800MT which is 15% below last season's production of 8,000MT, but 29% more than the 10-year average production of 5,300MT. Furthermore, pearl millet recorded 20,500MT this season, which is 54% lower than last season's production of 44,700MT and 54% below the 10-year average production of 44,500MT. Sorghum production on the other hand, recorded a 2,200MT, a significant reduction of 64% below last season's production of 6,100MT and also 41% lower than the 10-year average production of 3,800MT. This decrease in production is highly attributed to the drought conditions and the prolonged dry spells experienced during the course of the 2022/2023 season.

In the commercial area, both maize and wheat recorded an increase in the production, compared to last season and average production. In particular, maize recorded a 98,800MT which is 9%

more than last seasons' production of 90,900MT and yet 65% higher than the 10-year average production of 59,900MT. Moreover, it is important to note that, out of the 98,800MT of maize produced, 45,649MT (46%) came from the rain-fed production, while 53,175MT (54%) is from irrigated production, (see figure 3 below). According to the Namibia Agronomic Board (NAB), this is the biggest tonnage of white maize harvested, ever recorded in the history of maize production in Namibia, which is attributed to the increase in the planted area by the commercial farmers.

Figure 3: Maize production in the commercial area (irrigation versus rain-fed)



Source: Namibian Agronomic Board, 2023

On the other hand, wheat production stood at 24,700MT during the 2022/2023 season, reflecting an increase of 34% higher than last season production of 18,500MT and above the 10-year average production of 10,800MT by a magnificent 130%. Similar to the maize production in the commercial area, this is the biggest tonnage of wheat harvested, ever recorded in the history of wheat production in Namibia, according to NAB.

5. FOOD SECURITY SITUATION

5.1 National Food Security Situation

The food security situation has significantly deteriorated as a result of a highly unfavourable agricultural production during the 2022/2023 cropping season. It has been observed that the majority of crop farmers have experienced crop failure, which has consequently severely impeded their ability to replenish their food reserves. A considerable number of households in the key communal crop producing regions have reported a depletion of their harvest from the previous season, and they are now relying mainly on the market and drought relief food in some regions, for sustenance. In addition, it is projected that the recent harvest will be exhausted between August and December 2023, leaving these households in a precarious state of food insecurity. Typically, the food security situation tends to improve starting from March as seasonal crops like squash, melons, and legumes become ready for consumption. However, the current drought conditions have resulted in limited availability of these crops.

In the Zambezi region, the household food security situation has not seen substantial improvement despite the recent harvest. Farmers reported a meagre harvest, which is expected to only sustain households until September 2023. Normally, farmers in this region sell most if not all of their harvest and use the earnings to purchase additional food and other basic necessities. However, due to the poor harvest this year, farmers noted that there is no much surplus to sell, and the harvest is primarily intended for household consumption. The situation in the Kavango East and Kavango West regions emulates each other, as both regions have experienced a disappointing harvest whereby some farmers did not harvest anything at all, compared to the previous season.

In the northern central regions (Omusati, Ohangwena, Oshana, and Oshikoto), the situation regarding household food security is worsening. Majority of households have experienced a significantly poor harvest this season which is estimated to last only for a period of two to three months from the harvesting period. Households indicated that they have depleted the last year's grain reserves and now highly dependent on the market for food access. The household food security situation in southern, eastern, and central Namibia is also poor as a result of poor agricultural season. These areas primarily consist of livestock farmers who rely on livestock farming for their livelihoods. This presents a significant risk to those who depend on livestock rearing, since the grazing conditions in these parts of the country are insufficient and dry, which may not adequately support livestock throughout the dry season.

Meanwhile, the Cabinet has directed the Office of the Prime Minister to provide food assistance to drought affected households in Omaheke, Hardap and //Kharas Regions from 1st July 2023 to 31st March 2024, in addition to Kunene, parts of Erongo and Omusati Regions that has been receiving food assistance for the past few years. Cabinet further directed the Ministry of Agriculture, Water and Land Reform to provide the aforementioned Regions with Livestock Support Programme (LSP) from 1st July to 31st December 2023, and also to consider the extension of the LSP in Kunene, parts of Erongo and parts of Omusati Regions. The

interventions within LSP encompass various initiatives, including livestock marketing incentives, subsidies for lease of grazing, as well as subsidies for the transportation of livestock to and from grazing areas. This followed a rapid assessment by the Office of the Prime Minister in Omaheke, Hardap and //Kharas Regions, with the primary objective of assessing the impact of drought on the targeted population livelihoods, and identify urgent needs that would necessitate Government interventions.

The prevalence of food insecure households continues to increase, exacerbated by the recent erratic rainfall patterns that have led to a significant decline in agricultural production. It is anticipated that the situation will further deteriorate throughout the remainder of the year, necessitating an expanded provision of food assistance to accommodate a larger population that will be in need. According to the Namibia 2022/2023 Vulnerability Assessment and Analysis report of January 2023, it is estimated that 234 000 people, representing 9% of the population are expected to face high food insecurity between April and August 2023. These are however projections, pending the 2023/2024 Namibia Annual Livelihood Vulnerability Assessment and Analysis which is currently underway, which will then present the actual number of food insecure population in the country.

5.2 National Strategic Food Reserves (NSFR) Stock Levels

Table 2 below indicates the stock level of the National Strategic Food Reserve (NSFR) in various localities in the country. It is indicated that as of 31st July 2023, the NSFR has a stock of 3,560.07MT of grains which is only 16% of the silos' total holding capacity of 22,900MT. The current NSFR stock consists of 1,442.50MT of white maize in Katima Mulilo silo, 948.79MT of white maize in Rundu silo, 420.51MT of white maize in Tsandi silo and 748.27MT of pearl millet in Okongo silo. At the time of this reporting, Omuthiya silo were completely empty.

Table 2: National Strategic Food Reserve levels as at 31st July 2023

Location	Capacity (MT)	Stock Level (MT)	Current Stock in %	Grain Name
Katima Mulilo	7,400	1,442.50	4.60	White Maize
Rundu	4,000	948.79	6.94	White Maize
Omuthiya	4,000	0.00	0.00	
Tsandi	3,000	420.51	20.12	White Maize
Okongo	4500	748.27	20.07	Pearl millet
Total	**22,900**	**3,560.07**	**16%**	

Source: Agro Marketing and Trade Agency, 2023

The current stock in the silos is a carryover from the last season and meanwhile, the National

Grain Procurement Season commenced in May 2023 to stock up the silos and the process will run until October 2023 or until such time when all local production is absorbed. According to Agro Marketing and Trade Agency (AMTA), the white maize intake has already commenced on 14th June whereas pearl millet intake commenced from 1st July 2023.

It is important to note that much of the grains which could have been stored in the silos from last year are milled and distributed directly to the needy people as part of the drought relief food assistance by the Government. Furthermore, some of the grains were sold to the local small scale millers with no or limited capacity to import. This year, AMTA intended to procure 10,125MT (2,250MT of pearl millet and 7,875MT of White Maize) of grain from local production during 2023 grain marketing season. However, due to poor harvest, the volume for pearl millet was reduced to 1,000MT, whereas white maize was increased to 9,125MT due to a better harvest from Maize producing areas including the green schemes.

The Agro Business Information Services in collaboration with the Regional Councils Office and Office of the Prime Minister-Directorate of Disaster Risk Management will continue to monitor the situation as it unfolds and provide updated information accordingly.

6. GRAZING, LIVESTOCK CONDITION AND WATER SUPPLY SITUATION

6.1 Grazing condition

Grazing condition in most parts of the country has significantly become limited which is largely attributed to poor rainfall conditions and dry spells which have dominated the 2022/2023 rainfall season. The grazing condition in the //Karas Region has deteriorated, and ranges between poor and fair state and has not made any significant recovery due to the below average rainfall received this season. In the same vein, grazing condition is also fair to poor in Hardap and most parts of Otjozondjupa region, and farmers have already started supplementing with dry veld licks to aid with additional minerals and proteins. Furthermore, the western and southern parts of Hardap are more affected by the drought as compared to the eastern parts. In Erongo region, the overall grazing in most areas is still between good to fair condition, except areas around Utuseb that did not receive rainfall this season, hence, the grazing is extremely poor and dry. The overall grazing condition in most parts of Omaheke region ranges between good and fair, except, Kalahari, Gobabis and western part of Okorukambe constituency, and eastern part of Epukiro constituency, where grazing condition is poor and dry. In the Khomas region, grazing is generally fair apart from the southern part where below normal rainfall was received.

Figure 4: Grazing condition in the Okondjatu and Okakarara areas, Otjozondjupa Region

Fair to poor grazing conditions were reported in the North Central regions (Omusati, Oshana, Ohangwena and Oshikoto), where sporadic rainfall coupled with severe dry spells were experienced and according to farmers, good rainfall was only received in January since beginning of the season, affecting the pasture establishment. Furthermore, grazing condition in most parts of Kunene region is generally fair, but fragile which according to farmers is due to the insignificant rainfall recorded during the season. Grazing in Zambezi and Kavango east regions ranges between good and fair whereas fair to poor in Kavango West Region.

The overall grazing conditions is expected to worsen throughout the country during the dry season and many farmers will need Government intervention to better the situation and avoid high livestock mortalities as a result of drought.

6.2 Livestock condition

Livestock conditions vary across different regions. In the //Kharas and Hardap regions, the body condition of livestock ranges from fair to poor. However, livestock condition is very poor around Kalkrand area in the //Karas region, as compared to the rest of the Region. In the Omaheke region, livestock are mostly in a fair body condition, whereas Erongo Region reported fair body condition in large stock and good to poor in small stock. In Otjozondjupa Region, livestock body condition ranges between poor to fair, with Otjiwarongo and Tsumkwe constituencies having fair to good livestock condition. In the Kunene region, livestock body conditions are on average fair to poor, while livestock in Khomas Region are in good body condition particularly in the central and eastern parts of the region. However, in the southern areas where resettlement farmers are predominantly located, such as Versailles, Groot Aub, and Arovlei, livestock conditions are fair in body condition. In the north-eastern regions (Zambezi, Kavango East, and Kavango West) and north-central regions (Ohangwena, Omusati, Oshana, and Oshikoto), livestock body condition ranges between good to fair. As the dry season progresses and the grazing conditions deteriorate in various parts of the country, it is anticipated that the body condition of livestock will decline, which could further lead to livestock mortalities.

Figure 5: Livestock condition in Okakarara in Otjozondjupa Region, Elim in Omusati Region and Ncamagoro in Kavango West Region

Okakarara constituency *Elim constituency* *Ncamagoro constituency*

In relation to livestock diseases, there were no significant outbreaks of major livestock diseases. However, the regions have widely reported the following diseases and conditions: Dermatophilosis, Sweating Sickness in calves, Dystocia, Malignant Catarrhal Fever in cattle, Lamina Internal Prolapse, Anaplasmosis, Uterine and Vaginal Prolapse, Foot Rot, Atresia Ani in both cattle and goats, Umbilical Hernia, Tick Infestation, Internal Parasites, Orf, Bloating, and Mange and Abortion in small stock, Botulism, Pulpy Kidney, Cutaneous Papillomatosis, and Pasteurella. Additionally, isolated cases of Infectious Bovine Rhinotracheitis (IBR), commonly known as Pink Eye, and Lumpy Skin Disease were reported mainly in the Oshana region.

Among dogs, rabies and Pavo Virus cases were reported in the Ohangwena and Oshikoto regions, along with Infectious Coryza in chickens. Notably, Ohangwena region reported suspected cases of Contagious Bovine Pleuropneumonia (CBPP) disease in cattle that are in Angola for grazing purposes, whereby 20 cattle have been reported dead due to this suspected disease. However, the State Veterinary Doctor in charge of the region has indicated that controlling the spread of this

disease is currently challenging due to the varying control measures in place between the two countries, given that the affected animals are located in Angola.

6.3 Water supply situation

The overall water supply situation is a major concern in many areas of the country, due to poor rainfall received for the season. As such, most water catchment areas have already dried up as they did not receive enough water inflow. The water supply situation in Otjozondjupa is generally fair with boreholes as the main water source. However, boreholes are drying up and also need to be rehabilitated, in areas such as Otjongombe, Okamboro and Okasuvandjiwo. Furthermore, water in Ovitoto area is having a high concentration of lime and pose a health hazard to livestock and human. In Erongo Region, the water situation remains critical especially for Utuseb, Omatjete, Otjimbingwe, Spitzkope and Uis areas. Besides, most boreholes are broken and water supply is insufficient, citing below average rainfall received.

In Khomas region, water is satisfactory with earth dams being the main sources. Water availability in Hardap and //Kharas Regions is fair, but areas such as Snyfontein and Warmland in //Kharas Region have salty water that is not conducive for livestock and human consumption. As such some villages are being served with water tankers but the main concern is that, areas such as Karasburg East Constituency can go for weeks without water as there is only one water tanker that is serving the entire region. The situation in Omaheke region remain unresolved in some areas of the region. The region has a number of broken boreholes especially in the northern side of the region (Eiseb, Talismanus, Otjinene and Epukiro) due to wear and tear especially, leaving both human and livestock in critical water shortages.

The water supply situation in the north central regions (Ohangwena, Omusati, Oshana, and Oshikoto) varies from fair to poor. The floodwaters that were present in this area during January 2023 have completely dried up. However, some areas have access to piped water and boreholes as alternative sources. Unfortunately, most of the earth dams are either completely dry or have minimal water that will not last until the next rainfall season. Constituencies such as Eengodi in Oshikoto region are faced with a major water shortage because of the low water pressure in the pipeline, and communities can go days and weeks with no clean water. In Kunene Region, no significant water supply interruptions were reported, apart from isolated cases of broken pumps. The availability of water in Zambezi, Kavango East and Kavango West regions is abundantly available in the rivers, streams, swamps and boreholes in the inland.

Figure 6 (a) Lake Oponona in Uuvudhiya constituency in Oshana region completely dry, (b) Water dripping from the tap as a result of low pressure in Eengodi constituency and (c) One of few earthdams with water in Okaku constituency,

(a) *Lake Oponona*

(c) Okaku constituency-Oshana Region

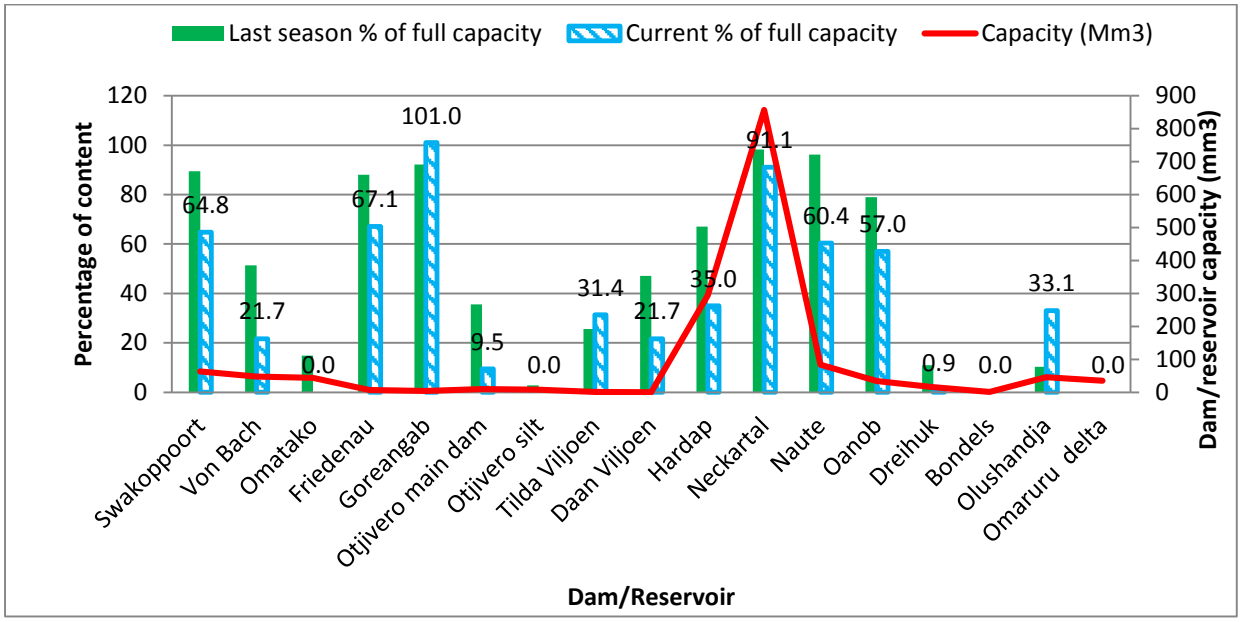
(b) Eengodi constituency-Oshikoto Region

6.3.1 Dam levels

Figure 7 below provides a summary of the major dams'/reservoirs level in the country. As of the 10th July 2023, the total content of the dams stood at 66% compared to 80% during the corresponding period last year. This notable decrease is attributed to the insufficient rainfall received during the 2022/23 rainfall season, which resulted in reduced inflow of water into the dams, and a substantial decrease in their water levels. As such, only Neckartal and Goreangab dams are above 90% with 91% and 101% of their full capacity, respectively. Other reservoirs

such as Swakoppoort, Friedenau and Naute are at 65%, 67% and 60% of their holding capacity, respectively, whereas Oanob stood at57%. The rest of the reservoirs are below 40%, with Omatako, Otjivero silt, Bondels and Omaruru delta completely empty.

Figure 7: Summary of Dam levels in the country at 10th July 2023



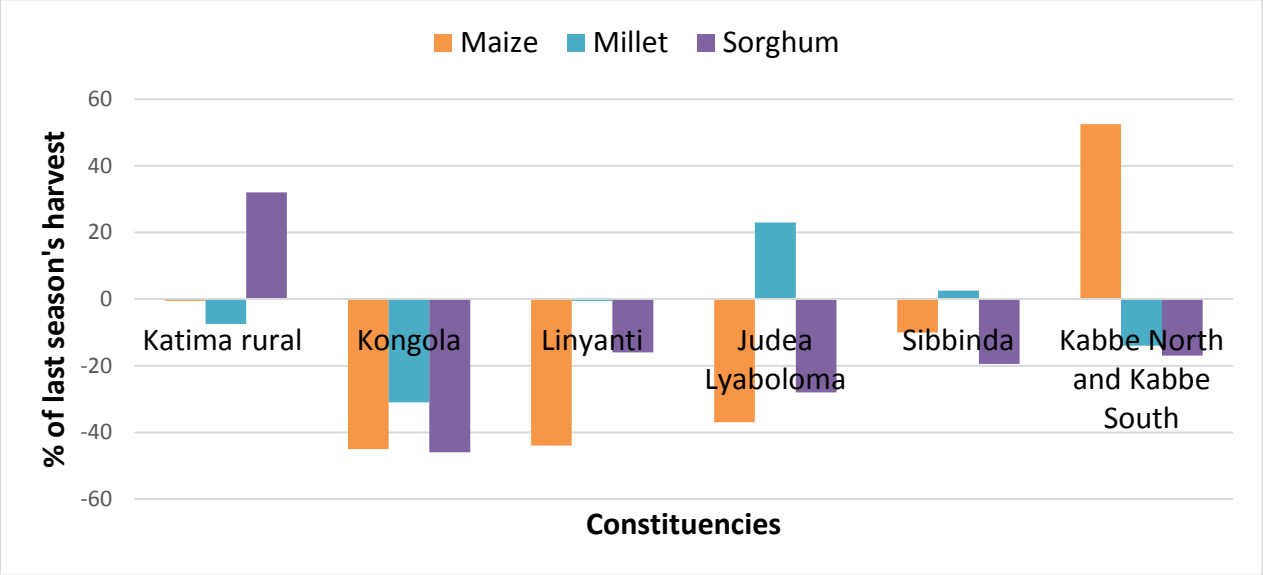
Source: Namibia Water Corporation Ltd, 2023

7. REGIONAL CROP AND FOOD SECURITY SITUATION

7.1 Zambezi region

Despite favorable rainfall at the beginning of the season, which caused optimistic expectations among farmers for a prosperous harvest, extended periods of dry spells in the second half of the season have caused the crops to wilt irreversibly. On the other hand, the eastern part of the region (Kabbe North, Kabbe South) Linyanti and Katima Rural constituencies suffered flood episodes, which affected some crop fields and ultimately leading to a reduced yield. Nevertheless, farmers were able to cover about 81% of their crop fields, reflecting an increase of 6% compared to the corresponding period last year. The post-harvest analysis for the aggregated cereals (maize, pearl millet, and sorghum), indicated an evident reduction in the harvest with a decrease of 12% compared to the previous season production of 11,134MT, but still 39% above the average production of 7,033MT. Specifically, maize production, which serves as a staple crop for the region, recorded a decline of 14% compared to the previous season's harvest of 11,356MT, yet remains 23% higher than the average production of 5,484MT. Pearl millet recorded a decline of 5% below last season's harvest of 2,149MT, but 27% above the average production of 1,605MT. Sorghum went down by 16% compared to the previous harvest of 1,149MT and 29% below average production of 1,361MT. Moreover, non-cereal crop production also experienced a decline this season compared to the preceding year. The figure below shows the cereal crop harvest per constituency in Zambezi region.

Figure 8: Summary of the cereal harvest in Zambezi region.



Instances of human-wildlife conflict were widely reported in the region, specifically elephants, buffaloes and warthogs have destroyed much of farmer's crop fields. The population of wild animals, is steadily increasing, and are moving in a gang of 100-200, particularly the buffaloes. This situation poses a significant threat to crop farming in the region, as crops are consistently subjected to destruction each season. In terms of the ploughing services under Dry Land Crop Production Programme (DCPP), the Region managed to plough about 1,627 hectares (ha) this season with 18 Government tractors and 923 ha by private tractors, whereas the Draught Animal

Power (DAP) ploughed 262 ha. Other services rendered were planting, whereby 181 ha were planted.

Grazing conditions vary across the region, with the floodplain areas being classified as good and the remaining areas as fair. Due to the flood in the eastern part of the region, during time of the assessment the grazing was still standing in water and farmers have already relocated their livestock to the upper land. Moreover, grazing in the upper land especially in *Salambala*, *Bukalo* and *Masikili* areas where majority of livestock from the flooded area moved to, are subjected to deteriorate fast due to a growing number of livestock in those area. Additionally, both large and small livestock are in good body condition, and no major livestock diseases were reported by farmers apart from lumpy skin disease in cattle and Orf in small stock. Water is available mostly in rivers, streams, boreholes, swamps, and ponds. However, some river streams are drying up, and certain boreholes require rehabilitation to ensure an adequate water supply for the communities that rely on them for water access.

Although the household food security has slightly improved following the current harvest, the harvest is only able to sustain households until December 2023 at most, for those that managed to get something. Furthermore, as a common practice in the region, most farmers sell much if not all of the harvest and use money from the sales to buy food throughout the year. On the aspect of marketing of grains, farmers have registered through the Agricultural Development Centers (ADCs) to formally sell their produce through Namibian Agronomic Board (NAB). However, the quantity of grains to be marketed could have reduced due to the low harvest attained this season as a result of erratic rainfall which was associated with prolonged dry spells.

Figure 9: Maize harvest in Zambezi Region

Kongola constituency

Linyanti constituency

Sibbinda constituency

Constituencies

Katima Rural

The constituency experienced below-average rainfall, significantly impacting this season's harvest. A prolonged dry spell from December to January, coupled with erratic and sporadic rainfall patterns and high temperatures resulted in some farmers not being able to fully cultivate their crop fields. Moreover, the area faced challenges with pest infestations, including cases of Fall Armyworms, bollworms and cutworms earlier in the season with moderate to severe crop damage. In addition, wild

animals destroyed many crop fields, especially in *Mutikitila* area, which has significantly contributed to the poor crop harvest. Approximately 85% of the cropping area was planted in relation to 41% in the previous season. However, certain crop field sections, particularly those planted in January, suffered from insufficient soil moisture. The revised crop analysis indicated a reduction in the harvest with maize and pearl millet production dropped by 1% and 8% below last season's harvest respectively. Contrary, sorghum production experienced an increase of 32% compared to last season. Additionally, harvest for non-cereals was also reported to have yielded low this season.

Regarding livestock health, no major diseases were reported apart from tick infestation in both small and large stock. However, grazing along the river is depleting rapidly due to the high concentration of livestock in that vicinity. Many farmers have moved their livestock to the riverside, as it offers relatively better grazing conditions compared to inland areas. Water is readily available from the river, boreholes, swamps and earth dams. In terms of household food security, numerous farmers obtained very limited harvests this year and as a result, the situation is getting worrisome since the current season's harvest is likely to sustain them only until September this year.

Kongola

The 2022/2023 rainfall season was poor and sporadic, with severe dry spells compared to last season. The season has been generally poor, affecting both crop and livestock production. On average, the planted area is estimated at 88% of the cropping area, which is 7% lower than the area planted same time last season. The revised crop production indicated a significant decrease in the production, with maize recorded a decrease of 45%, whereas pearl millet and sorghum decreased by 31% and 46% below last season's harvest, respectively. Moreover, poor harvest was also noted for non-cereals. Crop pests experienced this season was False army worms, but the infestation and crop damage was very minimal and with no serious impact of the harvest.

Livestock body condition as well as the grazing condition is good. No major livestock diseases were reported however, cases of external parasites especially ticks on cattle were highly reported throughout the constituency. Water is abundantly available through the river and boreholes and no water shortages were reported. On household food security, the situation has not improved due to an insignificant crop harvest recorded this season. Majority of households have depleted their previous season's harvest, and this season harvest will only be able to sustain them up to October this year. For food access, most households depend on casual labor and market purchases as well as food for work.

Linyanti

The constituency suffered the effect of poor rainfall performance which was seen in the forms of insufficient and erratic rainfall with frequent dry spells. Although the rainfall started on time, the occurrence of dry spells in December, February, and March resulted in crop wilting, ultimately causing a significant decline in crop production. Nevertheless, planted area this season is estimated at about 80% of the total cropped area, which is 17% lower than last season. Analysis of the crop production indicated a reduction in the harvest where maize have drastically reduced by 44%, while pearl millet and sorghum reduced by 1% and 16% below last season's harvest, respectively. The reduction in harvest, especially for maize is brought about by the prolonged dry spell which left most of the maize crops dry beyond recovery. Furthermore, harvest for non-cereal crops has also decreased compared to last season's harvest. No major crop pests were reported this season, except isolated cases of fall army worms with minimal crop damage. In addition, elephants, porcupines and warthogs have destroyed much of the crops which according to farmers have contributed to the poor harvest.

No livestock diseases were reported in the area, and both livestock and pasture are said to be in good conditions. Households located along the river have access to water with the river being the main source, whereas it's a concern for those residing inland, as the river is far. As a result, these households rely on private take-off pipeline water for both domestic and livestock purposes.

Regarding the household food security, the situation was reported to have improved slightly, following the recent harvest. However, this improvement is only short-lived as the harvest is expected to last for a short period of time before it gets depleted. As from December 2023, many households will face food

insecurity and interventions will be needed thereafter.

Judea Lyaboloma

According to farmers, the 2022/2023 rainfall season was poor, sporadic and coupled with prolonged dry spells most of February. On average, farmers were able to cover up to 80% of the total cropped area, a 15% less than the area planted last season during the corresponding period. Farmers further indicated that the remaining part could not be covered due to lack of rainfall and the in-between dry spells. According to the revised crop analysis, maize production has recorded a decrease of 37%, sorghum decreased by 28% below last year's harvest, while pearl millet went up by 23% above last season's production. Moreover, the harvest for non-cereal is also poor in comparison to the previous season. As it is the case in other constituencies, False army worms were experienced on maize in *Chisozo* and surrounding villages, with minimal crop damages.

No major livestock diseases were reported at the time of this assessment, and the grazing and livestock are both in good conditions. Water for both human and livestock consumption was noted to be sufficient, mainly available through boreholes and natural ponds. On the household food security, the situation has not improved following a poor agricultural production recorded this year. Households are currently dependent on recent poor harvest which is estimated to last only up to October 2023.

Sibbinda

As reported in other areas in the region, this constituency also received poor rainfall, characterized by prolonged dry spells and uneven rainfall patterns. Furthermore, farmers indicated that the rainfall season also ended prematurely in March, which affected crops at a critical growing stage. Therefore, the crop production recorded this year is very poor, and much below last season's production. The harvest analysis indicated a decrease in maize production of 10% while sorghum decreased by 20% lower than last season's harvest. Pearl millet on the other hand, recorded a slight increase of 3% above last season's harvest. The non-cereal crops have also performed poorly in comparison to last year. Nonetheless, the averaged planted area stands at 77%, which is 18% more than the area planted last season during the corresponding period. On crop pests, no major pest outbreaks were reported, apart from isolated cases of false army worms with a minimal crop damage reported in *Masida, Makanga, Kapani, Sibbinda* and surrounding villages.

On livestock health, isolated suspected cases of lumpy skin disease were reported in *Muzuna* area, but with no mortalities. Livestock body conditions as well as the pasture condition were reported to range between good to fair, while water for livestock is available with boreholes, swamps and ponds being the main sources. On household food security, few households reported that food security at household level is stable by the time of this assessment. However, a significant number of households have expressed concern regarding the sustainability of their current season's harvest, which is anticipated to last only until August or September this year. Consequently, these households will heavily depend on accessing food through market purchases thereafter.

Kabbe North and Kabbe South

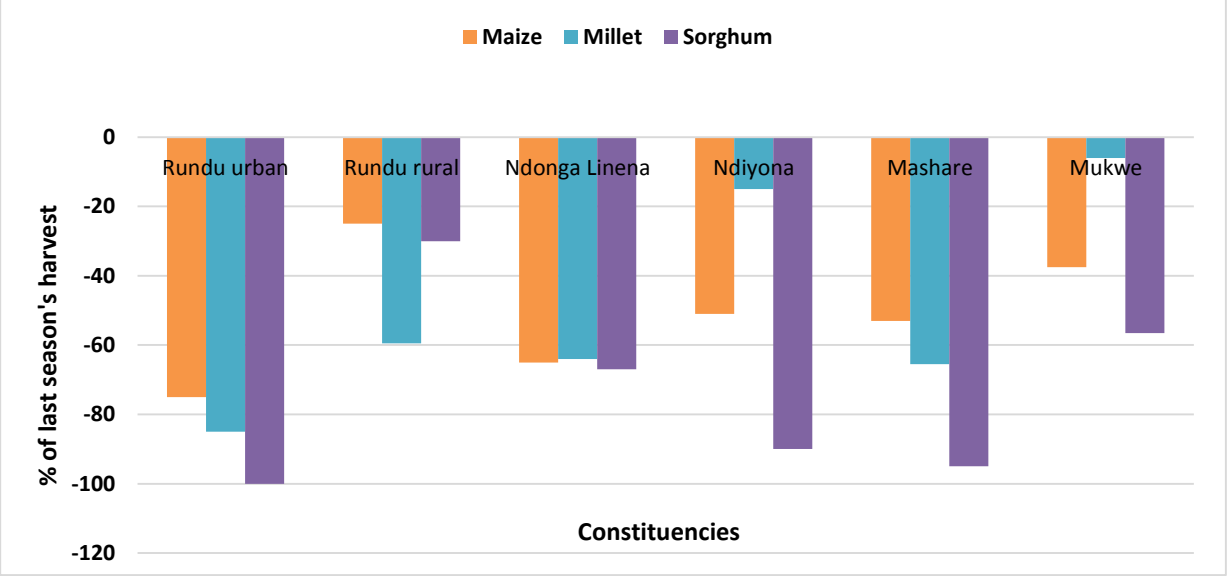
The constituency suffered prolonged dry spell condition mostly in the months of December, January to February which has negatively affected the ploughing activities, hence reducing the planted area. This has further negatively affected crop production leading to a very poor harvest compared to the previous season. Nonetheless, majority of farmers were able to cover about 75% of their crop fields, an increase of 12% in comparison to the corresponding period last year. The revised crop estimates indicated substantial reductions in the pearl millet and sorghum of 14% and 17% lower than last season's harvest, respectively. Moreover, maize recorded an increase of 53% higher than last season's harvest. This increase is mostly from the river side farmers who planted earlier in the season. Although good germination on non-cereals crops was observed earlier in the season, the prolonged dry spells caused wilting of such crops leading to limited harvest. In relation to crop pests and diseases, instances of false army worms have been reported with moderate crop damage. Furthermore, the occurrence of human-wildlife conflicts in the area is always a concern in this area, with elephants and Buffalos destroying farmer's crops. This season, such damages were severe, whereby some farmers experienced a complete loss in the harvest.

Cases of lumpy skin disease were reported in most part of the area during February mainly in the *Nakabolelwa* area. The livestock body condition and grazing is between good and fair, but the situation will soon deteriorate due to the large number of livestock in the floodplain area. This is because most farmers have moved their livestock to the floodplain areas for better grazing. Water is mostly available with the river, streams and boreholes as main sources. Moreover, the water catchment areas in the inland are drying up. Regarding household food security, the majority of households have expressed their reliance on the market as their primary source of food. This shift is a consequence of both the depletion of their food stock from the previous harvest and the significantly poor yield obtained this season. It is estimated that the current poor harvest will be exhausted by September 2023.

7.2. Kavango East Region

Despite initial promising rainfall during the first half of the season, there has been a significant decline in rainfall performance during the second half. Farmers have reported encountering prolonged dry spells, sporadic rainfall, and inadequate precipitation. Moreover, the rainfall abruptly ceased in March, leading to the wilting of crops and consequently resulting in poor harvest. Nonetheless, the average planted area is estimated at 91% of the total cropped area, which is 10% higher than the last season during the corresponding period. The cereal crop production for the region indicated a significant reduction in the harvest, with aggregate cereal standing at 2,669MT, a 53% lower than last season's harvest of 5,638MT and 35% lower than the 10-year average production of 4,082MT. In particular, maize production recorded a harvest of 46MT, which is 63% below last season's harvest of 125MT and 95% below average production of 993MT, while Pearl millet harvest recorded 2,601MT, indicating a 52% less than last season production of 5,418MT and 42% below the average production of 4,449MT. Furthermore, sorghum production stood at 22MT which is 77% below last season harvest of 95MT and 94% below average production of 363MT. Moreover, non-cereal crops such as cowpeas, melons, squash, bambara nuts and pumpkins harvest have also dropped and performed below last season's harvest. Figure 10 below shows a summary of the revised cereal harvest in different constituencies of the Region.

Figure 10: Summary of the cereal harvest in Kavango East region



Regarding the government services provided to farmers in the region under the DCPP, a total of 1 267 hectares were ploughed by 14 Government and 1200 hectares by private tractors. In addition, approximately 170 hectares were planted and 31 hectares were ripped by Government tractors. Other subsidized services rendered was the weeding, of which verifications were still in the process by the time of this reporting. Moreover, the DAP managed to plough 467 hectares

this season. During the 2022/2023 cropping season, there were no major crop pests and disease reported apart from cases of wild animals such as hippos and elephants that destroyed crop fields, especially in *Mukwe* and *Mashare* constituencies, leaving some farmers with no harvest at all.

The current pasture availability in the region is satisfactory; however, it is anticipated that it will be depleted by September of this year due to high demand. Similarly, water availability is rapidly declining in swamps and other water catchment areas. As a result, boreholes and the river are expected to become the primary sources of water for livestock. Most livestock are in fair body condition, and no major livestock diseases have been reported at the time of this assessment, except for a few instances of Dermatophilosis in cattle and cases of pulpy kidney and foot rot in goats.

Regarding household food security, the situation has begun to deteriorate due to the poor harvest experienced this season. It is important to highlight that there are households that have not obtained any harvest, primarily due to the prevalence of erratic rainfall and prolonged dry spells throughout the season. Consequently, the number of food-insecure households is expected to rise, necessitating interventions to support those who are particularly vulnerable and greatly impacted by the impending drought conditions.

Figure 11: Crop harvest in Kavango East Region

A better harvest in Mukwe Constituency

A crop field with no harvest due to elephants in Omega 1 area, Mukwe constituency

Constituencies

Rundu urban

This constituency consist of urban, peri-urban and rural areas. However, much of the farming activities are confined in the rural areas of this constituency. Based on the rural parts of this constituency, farmers indicated that this area received poor rainfall this season compared to the previous season.

Nevertheless, farmers were able to cultivate up to 99% of their crop fields, indicating an increase of 11% more than the area planted same time last season. This area was also not spared the effect of the prolonged dry spell, which was experienced from February to March. According to the analysis for this area, pearl millet production has recorded a decrease of 85%, while maize and sorghum declined by 75% and 100% below last season's production, respectively. Moreover, farmers have also reported a decrease in harvest for non-cereal crops. No crop pests were reported in the area.

On livestock health, no major diseases were reported apart from isolated cases of internal parasites that were reported in small stock. The livestock body condition and the pasture were reported to be fair, and water is abundantly available through boreholes and swamps. On household food security, the situation has not improved as a result of the poor harvest attained this season, and by the time of this assessment, some households are relying on the market for food access. A number of households indicated to heavily depending on market purchases mainly using social grants. In addition, the harvest is estimated to get depleted between August and September for those that harvested something.

Rundu rural

The area experienced a delayed onset of the 2022/2023 rainfall season, with farmers reporting that it began in December. Unfortunately, the season itself proved to be exceptionally poor, marked by prolonged dry spells that persisted throughout most of January and February. While the initial crop germination was promising, the drought conditions resulted in the crops wilting and failure to reach maturity. Nonetheless, the majority of farmers have successfully cultivated 91% of the designated cropped area, reflecting a 3% increase compared to the previous season's planted area. However, the crop harvest this season has been reported to be significantly poorer than the previous year. Specifically, maize, pearl millet, and sorghum have experienced reductions of 25%, 60%, and 30%, respectively, in comparison to last season's harvest. Additionally, the harvest for non-cereal crops this year is deemed to be very poor when compared to the harvest of the previous season.

On livestock health, no major diseases were reported at the time of this assessment. Livestock and grazing condition were reported to be fair and there is plenty of water available from the river, as well as boreholes in the inland. On household food security, the situation has not improved, following the poor harvest. Moreover, due to a lack of carryover stock from the previous season, the current harvest will only sustain households up to July at most, and from there onwards households will rely on the market for food access.

Ndonga Linena

Despite the exceptionally low rainfall experienced this season, farmers were able to plant approximately 85% of their crop fields. The adverse effects of the inadequate and delayed rainfall, compounded by prolonged dry spells, extended beyond crop production, impacting the availability of water, particularly for inland farmers that are located a distance from the river. The dry spells were more severe since February until the end of the rainfall season, and as a result, crops could not reach maturity stage and the grain formation was badly affecting. The revised crop estimates revealed significant decline in the harvest. Pearl millet production decreased by 64%, maize declined by 65% whereas Sorghum went down by 67% below last season's harvest. Although cases of fall armyworms were reported in the constituency, the damage was minimal. Farmers indicated that elephants have destroyed much of the crop fields which has also significantly contributed to the poor harvest attained this season.

The condition of livestock varies from good to fair, while the grazing areas, which are currently very dry, are mostly rated as fair throughout the constituency. However, the situation is expected to deteriorate in the coming months when the dry season begins. Regarding livestock diseases, there have been reports of two suspected cases of rabies in cattle in *Shandao* village, resulting in the deaths of two cattle.

The household food security situation is poor following this year's failed harvest, which was anticipated to improve food security. The meager harvest obtained will only suffice for a duration of one to two months. Consequently, households will heavily rely on market purchases as the primary means of acquiring food.

Ndiyona

Similar to other constituencies in the region, crop production has been adversely impacted by the rainfall poor performance and irregular distribution with prolonged and severe dry spells. As a consequence, a significant portion of the crops have wilted, and in some cases, complete failure to germinate has occurred. Planted area is estimated at 95% of the cropped area, on average. The analysis reveals a substantial decrease in harvests, with pearl millet experiencing a decline of 15% and maize reduced by 51% compared to last season's harvest. Sorghum production suffered the most severe impact, estimated to have declined by 90% below the previous season's harvest. Non-cereal crops have also shown a significant reduction, attributable to the severe drought conditions experienced throughout this season. Notably, no severe crop pests have been reported, apart from Quellea birds which were also not severe.

Livestock are in good to fair body condition, while the grazing ranges between fair and poor. Water is available mainly from the river for the riverside framers while the inland relies on boreholes. Following the current poor harvest, household food security did not improve significantly as majority of farmers could not attain better harvest. Therefore, the household food security situation is expected to worsen towards the end of the year.

Mashare

The 2022/2023 rain season is way far below as compared to the previous season. The season was characterised by sporadic, erratic and insufficient rainfall with prolonged dry spells since February. Despite the erratic rainfall, farmers were able to plant about 86% of their crop fields, which is 26% more than the area planted during the corresponding time in the last season. The crop harvest this season is very poor and majority of farmers are expecting very little if no harvest at all. The revised crop analysis indicated pearl millet to have decrease by 66%, whereas maize and sorghum have recorded a decrease of 53% and 95% below last season's harvest, respectively. Moreover, harvest for non-cereal crops were not spared the effect of the dry spell, and the harvest is much lower than last season.

No major livestock diseases were reported at the time of this assessment, apart from external parasites which were widely reported in the constituency. Grazing and livestock conditions are both in a poor state, a situation expected to worsen in the next few months. On household food security, the situation has not improved following the recent harvest, hence, many households are still faced with food insecurity. Few farmers that were able to harvest something, the grains are of very poor quality and it is estimated to last only up to October 2023 at most.

Mukwe

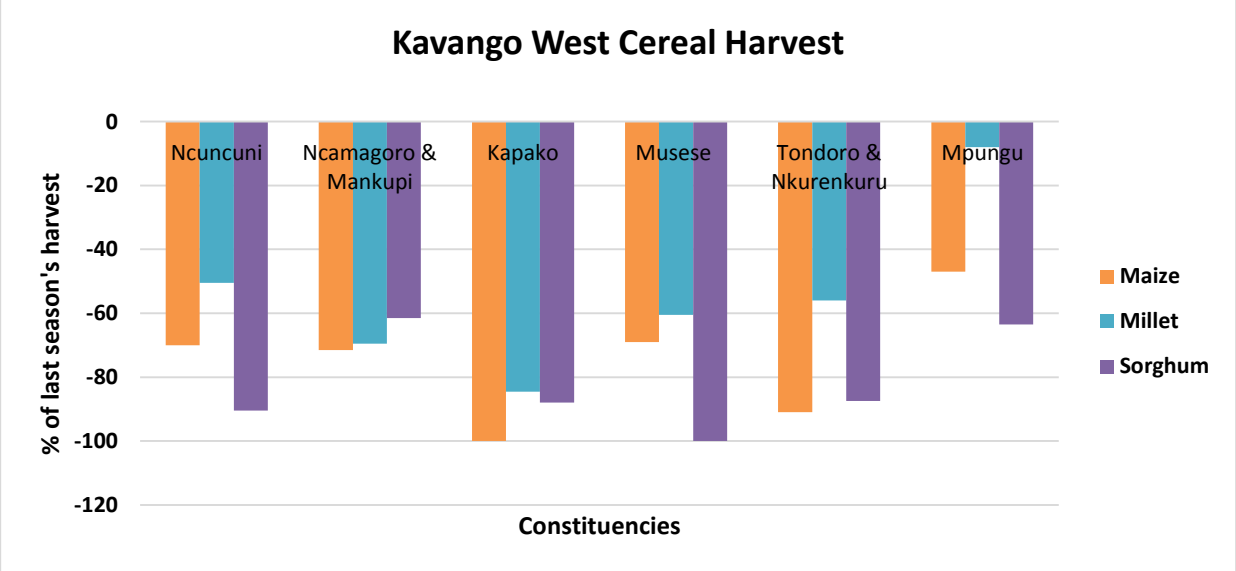
As it was reported in other constituencies in the region, the 2022/2023 rainfall season was very poor in terms of the rainfall amount and distribution. Prolonged dry spells were experienced during December, February and March, affecting both crop production and grazing condition. Despite such unfavourable rainfall season, farmers managed to plant 91% of their crop fields, reflecting a decrease of 2% lower than last season's planted area. The overall cereal harvest has declined this season as a result of the erratic rainfall as well as elephants that destroyed crops in Omega 1 area, leaving farmers with no harvest at all. As such, sorghum harvest decreased by 57% below last season's harvest whereas maize and pearl millet went down by 38% and 6%, respectively. The non-cereals crops such as bambara nuts and cowpeas went down drastically in comparison to last year. There were no reports of crop pests this season and birds were also minimal.

Livestock body condition ranges between good and fair, so as the grazing. Diseases reported among livestock included pink eye in cattle, as well as internal parasites in both small and large stock. The water availability is satisfactory with the river and boreholes being the main sources. However, water is a challenge within the Omega 1 community as the available borehole is broken and need to be repaired. This situation has left the community with no clean water and have to travel distances to the nearby villages for water access. The household food security has been compromised by the poor harvest recorded this year, leaving households to depend mostly on market purchases. Furthermore, the poor harvest attained this season is estimated to last only up to August and September this year.

7.3. Kavango West Region

The delayed onset of rainfall and the subsequent dry spells had a detrimental effect on the harvest. The agricultural production has been negatively affected, which is also attributed to the prolonged dry spells experienced during the 2022/2023 rainfall season. As a result, many farmers were unable to attain a better crop harvest this season**.** The regional analysis reveals a substantial decline in harvest, with aggregate cereal production decrease by 53% from 5,638MT last season to 2,669MT this year, while still surpassing the 10-year average production of 4,082 by 35%. Pearl millet production in particular recorded a harvest of 2,601MT, which is decline of 52% in comparison to the previous season's harvest of 5,418MT, and 42% lower than the average production of 4,449MT. Sorghum production saw a harvest of 22 MT this season, and that is 77% lower than last season's harvest of 95MT and 94% lower than the average production of 363MT, whereas, maize recorded a harvest of 46MT, a reduction of 63% compared to the previous season's harvest of 125MT and a massive 95% drop below the average production of 993MT. The non-cereal crops such as cow peas and bambara nuts have also reduced this season in comparison to the last year. Average planted area is estimated at 84% of the cropping area, reflection an increase of 3% when compared with the corresponding period last year. Figure 12 below shows a summary of the cereal harvest in different constituencies of the Kavango West Region.

Figure 12: Summary of the cereal harvest in Kavango West Region



In terms of animal health, a singular incidence of Anthrax was reported in early May in *Nkasima* village within the Mpungu constituency, resulting in the mortality of six cattle from a single kraal. It is strongly recommended that farmers undertake the vaccination of their livestock against Anthrax in order to mitigate the potential spreading of the disease. Alongside this, the region has witnessed a significant occurrence of other diseases and conditions such as Black quater, papillomatosis, tick-borne diseases, as well as plant poisoning, affecting both small and large livestock populations. The grazing condition within the region is generally fair, with animals presently grazing on crop residues following the recent completion of the harvest.

However, water is a concern in the western part of the region, particularly Mpungu constituency and communities have started digging wells to secure water for both livestock and household consumption. However, a notable escalation in the theft of borehole solar panels and water pumps poses a pressing challenge within the region, resulting in communities being deprived of essential water access. Another concern arises from the destructive activities of elephants, which have been damaging water infrastructure. Furthermore, a number of boreholes need rehabilitation and installation efforts to improve the water situation, particularly for inland communities heavily reliant on boreholes as their primary water source.

Given the poor harvest achieved this season, it is anticipated that household food security will progressively weaken as we approach the year's end. This situation arises from the fact that the current harvest is not sufficient to sustain households until the next season's harvest, but will only be enough until September/October 2023.

Constituencies

Ncuncuni

Despite the late start of the 2022/2023 rainfall season, majority of the farmers were able to cultivate their crop fields up to 81% this year, a 12 % less than the cropping area last season. Farmers reported that, since the start of the rainfall season, rainfall performance has been poor in most parts of the constituency. Additionally, the season was characterized by prolonged and severe dry spells, primarily occurring during the months of February and March. Consequently, some crops suffered from wilting and were unable to reach the maturity stage. The revised crop analysis for this constituency showed a significant decline in the harvest, with pearl millet production recorded a decrease of 51%, maize production is down by 70% whereas sorghum went down by 91% below last season's harvest. The non-cereals were also noted to have performed below last season's production. On crop pests, quelea birds were widely reported in the constituency with minimal to moderate impact.

At the time of this assessment, no significant outbreaks of livestock diseases were reported. The grazing conditions were reported to be favorable, and the overall body condition of livestock was observed to be satisfactory. Water in currently not a challenge as boreholes and swamps still have water. However, in terms of household food security, the situation has not shown significant improvement due to the poor harvest. Consequently, the current season's harvest is projected to provide sustenance for households only until September. Beyond that point, households will predominantly depend on accessing food through market purchases.

Ncamagoro and Mankumpi

The onset of the 2022/2023 rainfall season was delayed, very poor and sporadic in most parts of the constituencies, resulting in poor agricultural production. Many farmers noted disappointments about this year's crop harvest, which they said has been significantly affected by the recurring prolonged dry spells. Crop production for this constituencies indicated a substantial decrease in the harvest, with maize decreased by 72%, while pearl millet and sorghum decreased by 70% and 62% below last season's harvest, respectively. Moreover, harvest for non-cereal is also below last season's harvest. Consequently, farmers were only able to cover up to 75% of their crop fields, which is 17% less than the area planted last season during the corresponding time. No major crop pests were reported at the time of this assessment.

The pasture and livestock body condition were reported to be generally fair in the area, while water availability for livestock is mostly sufficiently available from boreholes. With regards to livestock diseases, no major livestock diseases were reported at the time of this assessment. On household food security, the situation has not improved significantly, as a result of a poor harvest recorded. According to the majority of farmers, they will need to supplement their little harvest with basic food commodities accessed from the market. Moreover, the recent harvest is estimated to only last up to October 2023.

Kapako

This constituency have also recorded a poor rainfall compared to last season. Farmers further described the rainfall to be unevenly distributed, not enough for crop production and crops were left wilting by the severe dry spell in January and March. Planted area is estimated at 95% of the cropped area, which is 28% above the area planted last season same time. The crop harvest recorded for this season is below last season production, especially for farmers that planted late. Harvest analysis indicated a reduction in the crop harvest, where pearl millet and sorghum have declined by 85% and 88% of last season's harvest, respectively. Maize was severely affected by the dry spell and suffered a substantial reduction of 100% below than last season. In addition, non-cereal crops have noted a poor harvest this season. Crop pests reported include the false army worms in *Bunya* village and grass hoppers which were reported at *Karangana* village.

Regarding livestock health, only tick infestation was reported in Bunya village both in small and large stock. Grazing is fair but not expected to sustain livestock through the dry season as it is likely to be depleted before the next rainfall season. Water availability for livestock is not a problem, as it is mainly available from the streams and river. The body condition of goats is reported to be good, whereas cattle are in a moderately fair condition. In terms of household food security, the situation is considered fair and has shown a slight improvement following the recent harvest. However, this improvement is only temporary. Many households have indicated that they have depleted their harvest from the previous season, leading to an anticipated food shortage starting from November of this year.

Musese

Majority of the farmers described the rainfall performance as late, poor and unevenly distributed compared to last season. According to farmers, the rainfall season was also coupled with a prolonged dry spell most of January. Despite that, on average farmers were able to cultivate their crop fields up to 97%, which is 26% higher than the area planted the same time last season. However, the production for maize and pearl millet have reduced by 69%, 61% below last season's harvest, respectively, whereas sorghum recorded no harvest this season in this constituency. The production for non-cereal crops like cowpeas and bambara nuts is said to be equally affected this season. The high pick of quellea birds, false army worms and armoured bush crickets is reported to have contributed to the poor production.

During the assessment, household food security emerged as a significant concern, with the majority of households having exhausted their harvest from the previous season. Moreover, the current season's poor harvest is projected to provide sustenance only until July of this year. Consequently, farmers are left with no alternative but to rely on the market and engage in piecework to secure access to food. No major livestock diseases have been reported in the constituency, apart from cases of sudden death in goats in *Kayeura* village. On the livestock body condition, most livestock are in a range of good to fair condition. Water is indicated not to be a challenge, as it is available from the river and boreholes. However, the grazing status does not look good, as it is dry and of

poor nutritional value.

Mpungu

In contrast to the poor rainfall experienced in the 2021/22 season, the rainfall during the current 2022/23 season was even worse. Although, the rainfall began on time in late October 2023, it was sporadic and poorly distributed, with frequent prolonged dry spells throughout the season. Average planted area is estimated at 67% of the cropping area and this is due to the dry spells experienced during the season. The revised crop analysis indicated reductions in the harvest, with pearl millet production decreased by 8% and maize is down by 47% of last season's harvest. Sorghum production has also decrease by at least 64% of last season's harvest. Furthermore, non-cereal harvests have also been impacted negatively due to insufficient rainfall. Although there were reports of birds, the damage to crops have resulted in minimal losses.

Livestock and grazing conditions ranges from fair to poor throughout the constituency. With the increasing number of livestock in the constituency from other regions, grazing is expected to deteriorate further due to overgrazing. While water is available through boreholes, some boreholes are yielding low water volumes due to a low water table caused by the poor rainfall. Household food security has significantly weakened as most households received very poor crop harvests this year and have also depleted their reserves from the previous season. Consequently, households are now heavily dependent on the market to access food.

Tondoro and Nkurenkuru Constituencies

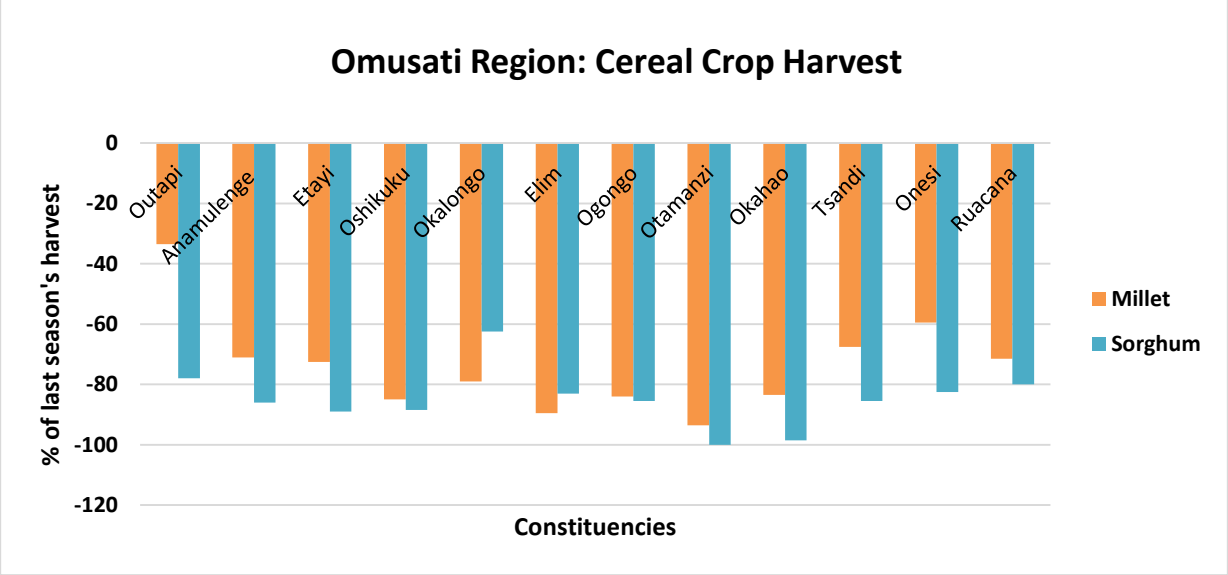
As with other constituencies in the region, the 2022/2023 rainfall season was very poor in comparison to the previous year. It was unevenly distributed and with severe dry spells in January and February. Furthermore, farmers have also observed that the rainy season concluded earlier than anticipated this year. This has affected crop production and consequently low harvest for both cereal and non-cereal crops. Nonetheless, majority of farmers were able to cover up to 93% of their crop fields, which is 1% less than the area planted last season. The analysis on the cereal production indicated that maize production has decreased with 91% while pearl millet and sorghum have decreased by 56% and 88%, below last season's harvest, respectively. Certain farmers have experienced a complete crop failure with no harvest due to the detrimental impact of the dry spell, particularly on maize crops. Additionally, the yield for non-cereal crops is lower compared to the harvest of the previous season. Furthermore, there have been reports of the presence of quelea birds in the constituencies, specifically in *Sitopongo* and *Mbome* villages.

During the assessment, the livestock were observed to be in good overall body condition. However, there is a notable challenge in terms of the quantity of dry and poor grass available in the area. Fortunately, water availability is not an issue as it can be sourced from both the river and boreholes. Household food security is currently reported to be in a poor state, primarily due to the recent inadequate harvest. Furthermore, a significant number of households have depleted their reserves from the previous season. Majority of households expressed their reliance on old age pensions to purchase food, in addition to seeking piecework opportunities as a means of accessing sustenance.

7.4. Omusati Region

The region experienced a severe drought this year, leading to an extremely poor crop harvest, scarce pasture conditions, and significant water shortages for livestock. The occurrence of sporadic and erratic rainfall, coupled with prolonged dry spells, was particularly intense during December, February to the end of the rainfall season. A significant portion of crops experienced wilting and complete failure, leading some farmers to abandon their fields without any harvest this year. The aggregated cereal production indicated that the harvest for the Region is 1,980MT, which is 76% lower than last season's harvest of 8,181MT and 79% lower than the 10-year average production of 9,531MT. The specific crop harvest indicated a negative harvest for both pearl millet and sorghum whereby, pearl millet declined by 74% below last season's harvest of 6,845MT and 87% lower than the average production of 13,529MT. Similarly, sorghum harvest has decreased by 84% below the average production of 1,226MT and 85% lower compared to the harvest of the previous season which was 1,336MT. The average planted area is estimated at 84% of the total cropped area, reflecting a decrease of 5% of last season's planted area during the corresponding period. The non-cereal production was also affected by the erratic rainfall and the harvest is very poor. Moreover, the melons performed better compared to last year and most farmers got a good harvest this season. There were isolated cases of False army worms in Ogongo constituency as well as Armoured bush crickets throughout the constituency, with minimal crop damage. Figure 13 below shows the summary of the cereal harvest in various constituencies of Omusati region.

Figure 13: Summary of the cereal harvest for Omusati Region



Livestock body condition is generally fair, but expected to deteriorate before the next rainfall season. This is due to poor grazing in the region apart from the cattle post areas where grazing is slightly better. Moreover, many livestock have been moved to the cattle post areas and such areas will be overgrazed in the next few months. Livestock diseases reported in the region were such as Mange in small stock, confirmed cases of Rabies where by 1 case was reported in a pig in *Oikokola* village in *Oneleiwa* area, and 2 cases in goats were reported in Omakange area.

Both cases were reported to the Regional Veterinary Office and was handled accordingly. The infected animals were slaughtered, burned and buried. The pasture and livestock body condition are currently in a state of deterioration, with the available grazing being limited and mostly observed in certain enclosed areas, characterized by extreme dryness. As a result, numerous farmers are approaching the Veterinary Office on a daily basis, seeking permits to transport their livestock to regions and/areas with better grazing opportunities. Additionally, the cattle post areas are experiencing overgrazing as a consequence of the significant influx of animals into these specific zones. Water for livestock is scarce, with only a few catchment areas providing access, and these sources are rapidly drying up. Fortunately, the water canal in the region offers significant relief for some farmers as it ensures a constant water supply. However, certain areas within the region continue to suffer from low water pressure, leading to households enduring days without tap water.

In terms of household food security, the situation was anticipated to improve following the recent harvest. However, due to a poor harvest, it has instead deteriorated and is expected to further weaken starting in August 2023. A number of households have experienced complete crop failure, leaving them reliant on the market to meet their food needs. The five constituencies in the region, namely Okahao, Onesi, part of Outapi, Tsandi, and Ruacana, continue to receive food assistance through the Office of the Prime Minister under the Drought Relief Programme. According to the Omusati Regional Council, it is still the same households and individuals that will continue to benefit from the current extended interventions. Furthermore, these existing beneficiaries continue to benefit as there has been no directive to expand the scope of assistance to include new individuals or households. At the time of this assessment, a total number of 115,814 household members from 16,779 households were registered for food assistance, in addition to the already existing beneficiaries.

Figure 14: Crop harvest in Omusati Region

Millet with poor grain quality in Okalongo constituency

One of the poorest harvest of the season in Ogongo constituency

Crop failure in Otamanzi and Okahao constituency

Constituencies

Outapi

Farmers characterized the 2022/2023 rainy season as unfavorable and poor compared to the previous season, in addition to its delayed onset. They consistently reported that the erratic rainfall patterns and prolonged dry spells had detrimental effects on grain quality, crop harvests, water availability, and grazing conditions. As a result, farmers were only able to cultivate approximately 88% of their agricultural fields on average, representing a 7% decrease compared to the area planted in the previous season. As a result, the production of sorghum and pearl millet has decreased by 34% and 78%, respectively, below the previous season. In addition, the non-cereal crops were also affected by the poor rainfall and dry spells and their harvest is also low in comparison to the previous year. There were no cases of crop pests this season.

Regarding the livestock health, cases of abortions in goats were experienced in the constituency due to poor grazing conditions. The large stock is in a fair body condition, whereas small stock body condition is good. This year's drought is anticipated to affect livestock because the grass availability is not sufficient to last until the next rainfall season. The constituency is currently grappling with water scarcity, particularly for livestock, especially those that lives far from the canal, as many water catchment areas have not received sufficient inflow. In terms of household food security, the situation has deteriorated, with some farmers unable to harvest any crops this season. However, it is worth mentioning that a few households still possess food reserves from previous years, which they can combine with the current harvest to sustain themselves until September 2023. Additionally, certain households in the western part of the constituency have been receiving drought relief food, leading to a slightly improved food security situation for them.

Anamulenge

Farmers have characterized the performance and distribution of rainfall during the 2022/2023 season as subpar when compared to the previous season. Lengthy dry spells persisted throughout February and extended into the early part of March, resulting in unfavorable conditions for crop germination and significant crop wilting. Consequently, multiple replanting efforts were required. The estimated average planted area for this season stands at 83%, in contrast to 97% of the area planted during the corresponding period last season. The production for both pearl millet and sorghum recorded a reduction of 71% and 86% as compared to the previous season, respectively. Production for non-cereal crops has also reduced this season compared to last season. No major crop pests were experienced

this season. Livestock body condition is fair coupled with fair to poor pasture conditions. Water for livestock is available from pipelines and from the few earth dams which are about to dry up. In this area, the prevailing livestock diseases primarily is internal parasites, along with suspected cases of pulpy kidney disease in small stock, resulting in mortalities. Regarding the food security situation, a significant number of farmers have depleted their previous seasons' harvest, leading them to rely on the market as their primary source of food due to their inability to harvest this season. For those who did manage to harvest, their grains are expected to sustain them until September 2023.

Etayi

The 2022/2023 rainfall season has been notably sporadic and erratic, with prolonged dry spells and high temperatures. As a result, majority of farmers were only able to cover approximately 81% of their crop fields, a reduction of 19% compared to the area planted last season. Revised crop analysis reveal a substantial decline in production, with pearl millet experiencing a decrease of 73% and sorghum witnessing a reduction of 89% compared to the harvest of the previous season. Furthermore, the harvest for non-cereal crops has been reported as highly inadequate in comparison to the previous year. While certain crop pests such as aphids on cowpeas, armored bush crickets, and quelea birds have been reported, the resulting damage has been described as ranging from minimal to moderate in severity.

During the assessment, no major livestock diseases were reported. However, grazing conditions were reported as poor, while livestock body condition was relatively fair, and livestock were grazing from the crop residues after harvesting. Most catchment areas have limited water but the water pipelines also serve as a main water source in the area. In terms of household food security, the situation is worsening. A significant proportion of households have exhausted their reserves from the previous harvest and now rely on the combination of the current harvest and the market to meet their food requirements. Farmers have expressed that the recently gathered harvest will only be able to sustain them for a period of two to three months and will not provide adequate provisions until the subsequent harvest.

Oshikuku

Farmers expressed dissatisfaction with the rainfall performance and distribution during the 2022/2023 season, considering it poorer in comparison to the previous season. Prolonged dry spells persisted from February until early March, resulting in the complete wilting of certain crops. Farmers reported that despite favorable germination, a significant portion of the crops failed to reach maturity, leading to a poor harvest characterized by low grain quality. Moreover, a considerable number of farmers experienced a complete absence of harvest due to severe dry spells and the erratic rainfall. Nevertheless, farmers responded well to the rainfall received in January by planting much of their crop fields. As such the planted area was estimated at 85% in comparison to 95% during the same time in the previous season. There were no major crop pests reported this season. In comparison to the previous season, the production of pearl millet has experienced a substantial decline of 85%, while sorghum production has decreased by 89%. Furthermore, the production of non-cereal crops has also witnessed a decrease during this season in comparison to the previous season.

Livestock body condition was reported to be in a fair state, accompanied by pasture conditions ranging from fair to poor. The availability of water for livestock is sourced from pipelines and the NamWater Canal. Most of the earthdams in the area have dried up completely. Internal parasites as well as pulpy kidney mostly in small stock was widely reported throughout the constituency. On food security, majority of households have depleted previous

seasons' harvest and currently depend on the market for food since they could not get good harvest this season. Furthermore, for those that managed to get something, it is estimated that the harvest will only last for about two months before it gets depleted.

Okalongo

The rainfall performance was poor compared to the previous season, coupled with severe and prolonged dry spells which affects crop development and consequently the harvest. Furthermore, farmers have replanted several times as crops wilted due to heat stress during the dry spell period. Conversely, certain villages, namely *Okando*, *Eengwena*, and nearby villages, endured exceptionally severe dry spells starting from the beginning of the season and persisting through January and February. Most of these farmers did not get any harvest for both cereal and non-cereal crops. Nevertheless, despite these challenges, farmers have successfully cultivated approximately 89% of their crop fields this season, representing a 4% decrease compared to the previous season's 93% of the area planted. The revised crop analysis for the 2022/2023 cropping season indicated a massive reduction in the harvest for both pearl millet and sorghum, whereby pearl millet reduced by 79% while sorghum decreased by 63% below last season's harvest. This huge reduction is attributed to severe dry spells experienced in the constituency and zero harvest by some farmers. Moreover, citrus melons production has performed better in some areas compared to the previous season.

Livestock body condition and grazing have been adversely affected, ranging from fair to poor, owing to the irregular rainfall patterns experienced this season. Although there have been reports of gall sickness disease in goats, no other livestock diseases were reported within the constituency during the assessment period. Water availability, at present, is considered satisfactory, primarily relying on pipelines and a few remaining earth dams as the primary water sources. However, it is anticipated that a significant portion of these earth dams will dry up before the onset of the next rainfall season. Household food security is severely compromised, as a significant majority of households have depleted their reserves from previous seasons. Furthermore, even for those who were able to harvest this season, the current meager harvest is anticipated to be insufficient to sustain them until the subsequent harvest. It is estimated that the available food supplies will only last until August 2023 for the majority of households.

Elim

According to the farmers, the onset of rainfall in this constituency commenced in December, and productive rainfall was only received in January. Concurrently, similar to reports from other constituencies, extended periods of dry spells persisted from February until the conclusion of the rainfall season. The insufficient performance of rainfall consequently led to a reduction in the cultivable area for the majority of farmers, with only 78% of their crop fields being planted. This figure reflects a decline of 11% compared to the corresponding time of the previous season's planted area. The revised crop estimates indicate a decline in cereal harvests, with pearl millet production reduced by 90%, while sorghum recorded a decrease of 83%, below the previous season's harvest, which was also poor. Furthermore, non-cereal harvests are reported to have drastically reduced compared to the previous year. There have been cases of Armoured bush crickets reported in the *Onaanda* and *Omaambo* villages, causing minimal crop damage.

During the assessment, it was observed that grazing condition is poor due to the insufficient rainfall received this season, while livestock body condition ranges between fair and poor. In terms of water availability, most earthdams have dried up, leaving traditional wells and

pipelines as the only sources of water in the area. This poses a big concern especially for livestock. In terms of household food security, the situation is becoming increasingly challenging as the majority of households are on the verge of depleting their last season's harvest, and some farmers have not been able to harvest anything this season.

Ogongo

The current 2022/2023 rainfall season started late and was very poor in terms of amount and distribution. Furthermore, prolonged dry spells were experienced during December and from February to the end of the season, and as such, crops wilted badly beyond recovery. Multiple replanting also occurred earlier in the season as a result of poor crop germination. Majority of farmers were able to cultivate only up to 88% of their crop fields, signifying a 12% decrease compared to the corresponding period in the previous season. The crop production analysis reveal a substantial decline in harvest, with pearl millet experiencing an 84% reduction and sorghum reduced by 86% compared to the previous season. Additionally, the overall production of non-cereal crops this season is notably lower in comparison to the previous year. Instances of False army worms were reported across the constituency during the dry spell in February, with varying degrees of damage ranging from minimal to moderate. Livestock in the area were reported to have fair body condition, accompanied by pasture conditions ranging from fair to poor. Water supply for the livestock is available through pipelines and from the NamWater Canal. However, the catchment areas, such as earth dams, have completely dried up, resulting in farmers residing far from the canal having restricted access to water for their livestock. Farmers in the area have reported multiple cases of internal parasites affecting goats, as well as potential instances of pulpy kidney disease.

In terms of food security, the current situation is bad, with a significant number of households experiencing a notably poor harvest this season. The majority of these households have depleted their reserves from previous seasons and now rely heavily on the market for sustenance, as well as the limited harvest obtained this season. Regrettably, it is anticipated that food insecurity will become more evident starting from August 2023, as many households will have exhausted their grain reserves.

Otamanzi

This area, similar to other constituencies in the region, has experienced a significant decline in rainfall, as reported by farmers who describe it as very poor in terms of both quantity and distribution. Productive rainfall was limited to January, followed by prolonged dry spells in February and March. Consequently, the majority of crops wilted and failed to reach maturity, resulting in a lack of harvest for most farmers. The estimated average planted area accounts for only 74% of the total cropping area, which is a decrease of 11% when compared to the area planted last season. Crop production indicate a substantial reduction in the current harvest, with pearl millet experiencing a decline of 94% below last season’s harvest, while sorghum was severely affected by the extended dry spells, leading to an insignificant harvest. Additionally, non-cereal crops have also suffered from the poor rainfall and the harvest has massively decreased, compared to the previous season. There have been reports of Armoured bush crickets as crop pests especially in the *Onaniki* village, but with very minimal damage.

Regarding livestock health, cases of tick infestations have been observed in the area during the assessment. The establishment of pasture has been notably poor, and livestock body condition has been reported as fair. Farmers rely on a limited number of earth dams and pipeline water, as most of the water in the catchments has dried up. Household food security remains a concern, as only few households are currently relying on the previous

season's harvest, which is expected to be depleted by July. Furthermore, the current harvest has been exceptionally poor and will not be sufficient to sustain households until the next harvest, providing only two months of sustenance at best.

Okahao

The constituency has been severely impacted by prolonged dry spells throughout the 2022/2023 rainy season. Farmers have observed that productive rainfall was only received in January, as the extended periods of dry weather and high temperatures took a toll on most crops. As a result, many crops failed to reach maturity, leading to widespread crop failure. The area planted this season was estimated to be around 84% of the previous year's planted area, indicating an increase of 1% in comparison to the previous season at the corresponding period. The inadequate rainfall and prolonged dry spells have caused a significant decline in crop yields, with pearl millet production reduced by 84% and sorghum reduced by 99% compared to the previous season's harvest. Additionally, a number of farmers could not harvest anything this season. Non-cereal crops also recorded below yields when compared to the previous season. In terms of crop pests, there were reports of armoured bush crickets and quelea birds in *Onakandja* and the surrounding villages, resulting in minimal crop damage.

No major livestock diseases were reported in the area, apart from tick's infestation, impacting both large and small stock. Grazing condition is poor, which had a direct impact on the body condition of the livestock, ranging from fair to poor throughout the constituency, a situation feared to worsen by the dry season. There is a high concern about the availability of surface water for the livestock, as most water catchments are completely dry due to insufficient water inflow this season. As a result, the majority of farmers had to rely on pipeline water as their main water source for their animals. In terms of household food security, the situation has weakened. The previous harvest is about to deplete whereas the recent harvest is only able to last until August 2023, highlighting the precarious food situation faced by many households in the constituency.

Tsandi

Farmers described the rainfall performance as very poor this season compared to the previous season, and productive rainfall started very late in January and was very sporadic with a prolonged dry spell in February. As such, farmers replanted several times, hoping to receive better rainfall in March but unexpectedly, the rainfall season came to an end that same month. This has then contributed to the poor crop production, for the 2022/2023 season. On average, farmers managed to cultivate about 85% of their crop fields, a 12% higher than the area planted last season. The production for pearl millet and sorghum has reduced by 68% and 86% of last season's harvest, respectively. Moreover, non-cereal crops like cowpeas and melons have also yielded poorly. Further contributing to poor production is the swamp of false army worms which happened during the dry spell periods with moderate to severe crop damage.

Generally, grazing in the area has already deteriorated, while livestock are in a fair body condition. Most catchment areas have already dried up, and the pipeline is the only main source of water for livestock. At the time of this assessment, no major livestock diseases were reported. Household food security is poor, as majority of the interviewed households have already depleted their previous season's food stock. With regards to the current harvest, farmers indicated that it will only sustain them until August this year. In addition, the most vulnerable households have been receiving Drought Relief Food which also set as a relief to those that are severely affected from the previous drought episodes.

Onesi

Cereal production for the constituency has reduced by 60% for pearl millet while sorghum went down by 83% below last season's harvest. This is due to the erratic rainfall received this season which further led to stunted growth, and even crop failure. A prolonged dry spell that was experienced in February and March resulted in several replanting with unsuccessful germination. Nonetheless, most farmers managed to cultivate their crop fields up to 97%, compared to 70% planted area during the same time last season. Regarding pests, most farmers reported the Armoured bush cricket, but the damage was minimal.

In terms of household food security, the situation has deteriorated, as the majority of households rely heavily on the meager harvest from the current season, which has been exceptionally poor. Unfortunately, this harvest is projected to sustain them only until October 2023, after which it will be depleted. Furthermore, households have expressed that the monthly provision of drought relief food has somewhat improved the situation, along with the additional food purchased from the market. Although livestock are in a fair condition, this will soon worsen because of the poor grazing in the area. Cases of internal parasites, suspected cases of pulpy kidney in small stock were highly reported from all corners of the constituency. Water for livestock is currently not a major challenge as there are still some earthdams with water. In addition, the canal, pipeline and traditional wells are also some of the water sources in the area.

Ruacana

Similar to other constituencies in the region, this area has been severely affected by drought conditions, resulting in significant impacts on agricultural production and water availability. There are limited catchment reservoirs with water, but they are unlikely to sustain until the next rainy season. The entire rainfall season was characterized by dry spells, high temperatures, and erratic and sporadic rainfall patterns. While most farmers cultivated their fields, the crops did not reach maturity. However, the Citrus melon harvest was relatively good compared to the previous season. The percentage of planted area is estimated at 83%, which is a decrease of 7% compared to the area planted same time last year. According to the revised crop production analysis, there is a huge reduction of 72% in pearl millet and 80% in sorghum production, below last season's harvest. No significant crop pests were reported during this season.

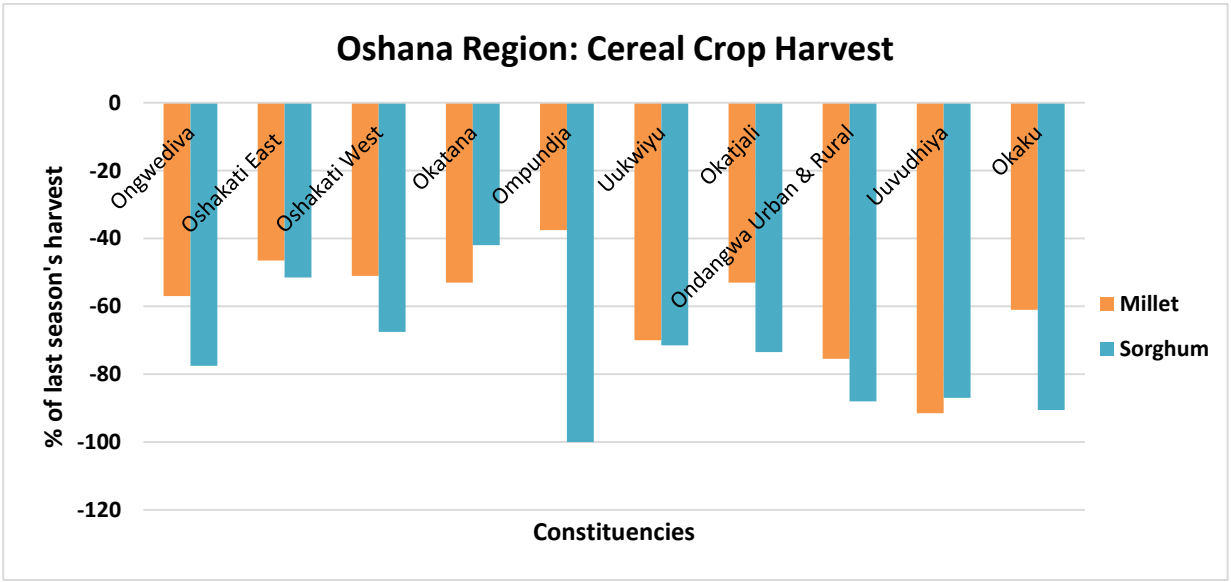
Both grazing and livestock body condition in the area are in very poor condition. Livestock mortalities have been reported attributed to a case of rabies in the Omakange area. Furthermore, isolated cases of internal parasites, pulpy kidney disease, and mange in small stock were also reported. Human-wildlife conflicts have also been reported, with elephants damaging crop fields, particularly in *Otjomukandi* and nearby villages. As a result, farmers in those areas are expecting a complete loss of their harvest. Household food security has been noted to be in decline, as many farmers have experienced a complete crop failure this year. Many households are dependent on the market and, to some extent, on drought relief foods to access sufficient food.

7.5. Oshana Region

Poor agricultural production was reported throughout the region, following a below average and extremely poor rainfall performance experienced this season. Although the region received agricultural inputs and services on time, such efforts were marred by poor rainfall performance which is said to have affected both crop production and grazing conditions. The poor rainfall performance was widely reported in all parts of the region and the situation was seen in the forms of erratic, sporadic and insufficient rainfall, accompanied by frequent prolonged dry spells since the start of the rain season. On the other hand, some constituencies such as *Okatana, Okaku Ompundja, Ongwediva, Ondangwa Rural, Ondangwa Urban, Uukwiyuushona, Oshakati West, Oshakati East* and *Okatyali* were affected by seasonal flood during January as a result of heavy rainfall received in Angola during that time. This has further affected crop production, and significantly contributed to the poor harvest as well as poor grain quality attained this season. The revised crop harvest estimates indicated that the Region's harvest stood at 3,726MT, a reduction in the harvest with 63% below last season's harvest of 9,940MT and 55% below the 10-year average production of 8,350MT.

Pearl millet in particular, recorded a reduction of 60% below last season's harvest of 8,275MT, and still below the average production of 8,116MT by 59%, whereas sorghum decreased by 75% below last season's harvest of 1,665MT, and 58% below the average production of 985MT. Moreover, the harvest for non-cereals have also gone down, and only Kalahari melons performed well compared to last year. Average planted area is estimated at 88% of the cropping area which is 7% lower than the area planted same time last season. Crop pests reported in the region this season are False army worms that were mainly in Okatana constituency in *Epyenene* village as well as Aphids on cowpeas that were widely reported throughout the constituency. Figure 15 below shows the summary of the cereal harvest in various constituencies of Oshana Region.

Figure 15: Summary of the cereal harvest for Oshana Region



The household food security situation has weakened due to the poor crop harvest obtained this season. As a result of severe drought, some farmers did not yield any harvest this year, leaving them reliant on the market for food access. Only a small number of households are reportedly still depending on the previous season's harvest, which is being supplemented with purchases from the market. According to the Oshana Regional Council (ORC), there has been a daily increase in the number of households facing food insecurity, particularly in the peri-urban areas where most of households lack any source of income or social grants. The ORC further indicated that a total of 821 households in need of food assistance were registered from all constituencies and Ompundja constituency had the highest number of households in need, with a total of 197 registered. With poor harvest attained this season, the number of households faced with food insecurity is expected to rise drastically.

Regarding the livestock diseases, most of the diseases experienced are the insect- transmitted diseases such as Infectious Bovine Keratoconjuctivitis (IBK, Pink eye), Anaplasmosis, Sweating sickness, Lumpy skin disease and Cutaneous papillomatosis. In addition, Orf and internal parasites were also highly reported throughout the constituency in small stock. In chickens, Infection Coryza and Fowl pox were also reported in the Region. The grazing condition within the region exhibits a variation, with poor conditions observed inland and fair conditions noted in the southern and extreme western parts, particularly in the cattle post areas. However, these areas are currently experiencing an influx of livestock due to farmers from both within the region and neighboring regions seeking improved grazing opportunities. As a consequence, the prevalence of overgrazing is anticipated to emerge soon, before the next rainfall season. Livestock body condition is currently between poor in the inland and good at the cattle post areas. Water availability is satisfactory as many catchment areas still have water. However, farmers express a concern that the existing water will not be sufficient to sustain livestock throughout the dry season, as some water sources are already drying up.

Figure 16: Crop harvest in Oshana region

Pearl millet threshing process in Okatyali, Uukwiyuushona and Oshakati West constituency

Ongwediva

Despite late and poor rainfall performance this season compared to the previous season, majority of farmers were able to cover up to 91% of their crop fields, indicating a decrease of 2% of area planted same time last year. The effect of the prolonged dry spell felt in February and March, left most crops wilted. The production prospect for both pearl millet and sorghum has decreased by 57% and 78% of last season's harvest, respectively. The non-cereal crops have also performed poorly this season. No major crop pests have been reported, apart from quelea birds during the grains formation stage, mainly in *Okaandje* and surrounding villages with moderate damage.

At the time of this assessment, no major livestock diseases were reported in the constituency. However, the pasture condition has already deteriorated, but better in the fenced off areas, although very dry. As a result, farmers moved most of their livestock to areas with better grazing, especially the cattle post areas. Otherwise the body condition and water availability is good for now. Regarding the household food security, the situation has weakened as majority of households have already depleted their previous season food stock. Most of the interviewed households indicated that their current poor harvest will only sustain them until December 2023, whereas those that did not harvest anything are mainly relying on market purchases.

Oshakati East

On average, majority of farmers managed to cover about 85% of their total crop fields this season, which is 15% less than the area planted last season. According to farmers, the 2022/2023 rainfall performance was very poor compared to the previous season. In addition, the season was coupled with a prolonged dry spell most of February, and left some crops wilted and farmers had to replant several times. The harvest for both pearl millet and sorghum recorded a decrease of 47% and 52% below last season, respectively. Similar to many other constituencies in the region, the production of non-cereal crops such as cowpeas, bambara nuts, squash, etc., has also declined compared to the previous season. Additionally, the prevalence of false army worms in the area has been widely reported, causing significant crop damage and contributing to the decreased production.

Regarding household food security, the situation has deteriorated. A significant number of households have reported depleting their food stocks from the previous season between April and May 2023. Meanwhile, the current harvest is expected to provide sustenance only until October this year. Beyond that point, households will primarily rely on the market to meet their food needs. Regarding livestock, the current body conditions appear satisfactory. However, the pasture situation is concerning as it is extremely dry and fast depleting, with a high likelihood of complete depletion by August 2023. Water availability is not a challenge in the constituency for now since it is readily accessible from earth dams and pipelines. In terms of livestock health, there have been reports of suspected cases of gull sickness in cattle within *Oshipumbu-shomugongo* and the surrounding villages, with no mortalities recorded.

Oshakati West

This constituency has experienced poor rainfall throughout the season. The rainfall received was sporadic and erratic, with prolonged dry spells and high temperatures dominating most of the season. Farmers have expressed that the rainfall performance was significantly worse

compared to the previous season in terms of both quantity and distribution. Despite the challenging conditions, farmers have managed to cultivate approximately 87% of their crop fields, a 1% more than the cropped area last season. The revised crop estimates reveal a reduction in harvests, with pearl millet and sorghum production declining by 51% and 68% below last season's harvest, respectively. Additionally, non-cereal crops have also indicated poor yields. There have been reports of few cases of American bollworms affecting pearl millet but the damage was minimal.

Regarding livestock health, cases of internal parasites and ticks, primarily affecting goats, and isolated cases of gall sickness in cattle have been reported during the assessment. Grazing condition is as fair, and the livestock's body condition is generally good. In terms of water availability, farmers rely entirely on pipeline water as the catchments areas have dried up. As for household food security, the majority of households still depend on the previous season's harvest but this supply is expected to be depleted within one to two months. Farmers have further indicated that the current harvest has been poor and will not be sufficient to sustain them until the next harvest, and it is estimated to last only until September 2023.

Ompundja

Majority of the farmers described the rainfall performance as poor compared to the previous season. In addition, the rain season was too short with last showers received in March, and the area suffered the effect of the prolonged dry spell in February, which caused crops to wilt. Nonetheless, most farmers have managed to cultivate 89% of their crop fields, a 9% lower than the area planted last season. The production for pearl millet dropped by 38%, while sorghum has drastically declined by 100% below last season's harvest. The production for non-cereal crops like cowpeas and melons was also noted to be poor this season. Apart from reports of quelea birds and false army worms which according to farmers have also contributed to the poor harvest, no other pests have been reported in the area.

Livestock body condition ranges between fair to good but the pasture condition is very poor. Water mainly for livestock is available from the pipeline, as well as few catchment areas such as earth dams of which some are about to dry up. Regarding animal health, isolated cases of Orf in goats have been reported in *Omeege* and surrounding villages. On household food security, most households indicated that their current harvest is only able to sustain them until August this year. Moreover, farmers have indicated that they have already depleted their previous season food stock, and as such, market purchases have become their main source of food. With the poor harvest attained this season, high prevalence of food insecurity is expected.

Okatana

The 2022/2023 rainfall season has been remarkably poor in terms of both quantity and distribution compared to the previous season. This area has experienced prolonged dry spells accompanied by high temperatures throughout February. Consequently, the crops have wilted, with many failed to reach maturity. Due to the insufficient rainfall, the majority of farmers were only able to cover 87% of their crop fields, indicating a reduction of 7% in the area planted last season. The combination of poor rainfall performance and extended dry spells has resulted in a significant reduction in crop harvests. Therefore, the estimates indicate that pearl millet production has declined by 53% while sorghum harvests have decreased by 42% below last season's harvest. Additionally, the non-cereal crop harvest has been reported to also be below the previous season's harvest. Crop pests, such as false armyworms, were reported in *Epya-enene,* and although they were controlled, the damage inflicted was severe. There were also reports of quelea birds, but the damage is minimal. At the time of the assessment, tick infestation affecting both large

and small stock was reported. Grazing conditions in the area is poor, while the body condition of the livestock ranged between fair and poor. Water sources for livestock include the canals, earth dams, and pipeline, therefore, there are no reports of water shortages in the constituencies at the moment. In terms of household food security, the majority of households rely on the current season's harvest, which is already being supplemented with market purchases. Farmers have indicated that the current harvest will not be sufficient until the next harvest and can only last until September 2023.

Uukwiyu Uushona

As with other constituencies in the region, this area received below average rainfall with severe and prolonged dry spells from February until the end of the season. Despite the dry spells and erratic rainfall, farmers managed to plant about 86% of the cropping area, which is a decrease of about 11% compared to the corresponding period in the previous season. Crop harvest this season is very low in comparison to last year whereby pearl millet decreased by 70%, whilst sorghum decreased by 72% of the previous season, respectively. Furthermore, the harvest for non-cereals is very poor compared to last season, with the exception of Kalahari melons which performed much better. As for crop pests, isolated cases of False army worms, Armoured bush crickets and birds were reported with minimal crop damage.

Livestock body condition is currently fair and are feeding in the crop fields on the crop residues. Moreover, the grazing condition is poor and will not sustain livestock through the dry season. There are few earth dams and wells with water but are drying up fast and farmers fear that it might not last till the next rainfall season. Suspected cases of internal parasites were widely reported in small stock and gall sickness in cattle. External parasites were also widely reported in the constituency. Following the just ended harvest, the situation on food security has weakened. Farmers did not get good harvest this season, and according to households, the current harvest is estimated to last only up to October 2023.

Okatjali

This constituency experienced inadequate rainfall throughout the season, with more substantial rainfall occurring only in January. The occurrence of dry spell episodes significantly affected crop production, resulting in a very poor harvest this season. Much of the crops could not reach maturity stage and those that did have poor quality grains. The revised harvest indicated a massive reduction in both pearl millet and sorghum harvest by 53% and 74% lower than last season's harvest, respectively. In addition, the harvest for non-cereal crops this season is poor in comparison to last season, apart from the Kalahari melons that are slightly better. The average planted area was estimated at 84% of the cropping area which is 16% less than the planted area during the same time in the previous season. Isolated cases of False army worms were reported during the dry spell period in February with minimal to moderate damage.

Regarding the livestock health, cases of abortion and pulpy kidney in small stock were highly reported as well as external parasites in both small and large stock. Grazing ranges between fair and good in most parts of the constituency, apart from areas such as *Okasheshete* where grazing is poor. Livestock body condition is currently fair which is envisaged to deteriorate during the dry season. Water supply situation is a concern in the area as only few earth dams have water. In addition, flood water was still visible in areas such as *Ondiiyala, Enkavu* and *Onamiva* toward *Namagwena* seasonal river. Other sources are the pipelines but the water pressure is very low and hardly reach some places especially *Okapopo* and *Okadhiya*. Regarding household food security, the situation is deteriorating due to a recent poor harvest. Additionally, the

majority of households have exhausted their reserves from the previous harvest and will heavily rely on the market to acquire food towards the end of the year.

Ondangwa Rural and Ondangwa Urban

Similar to other constituencies in the region, this area has been significantly impacted by severe drought conditions, leading to widespread crop failure and an acute shortage of grazing and water for livestock. Severe drought conditions manifested through irregular and sporadic rainfall patterns, characterized by frequent and prolonged periods of dry spells. Despite such condition, farmers were able to cultivate and plant about 88% of their crop fields, an increase of 5% more, compared to the corresponding period last season. The revised crop estimates showed a drastic reduction in harvest with pearl millet production estimated to have declined by 76% while sorghum is down by 88% of the previous harvest. Furthermore, with the exception of Kalahari melons, non-cereal crops have experienced a poor performance this season. In *Okakonyamata* village, a few isolated incidents of armoured bush crickets were observed, with insignificant crop damage.

The current livestock body condition is fair while grazing is very poor throughout the constituencies. No major livestock disease outbreaks were reported, apart from cases of diarrhea in goats that were highly reported but no mortalities were recorded. Water availability is a challenge in the constituency as only few earth dams have water which will not even last up to the next rainfall season. The household food security situation has weakened as a result of the poor harvest recorded this year. Many households have reportedly exhausted their reserves from the previous season's harvest and the current poor harvest is estimated to last only up to August/September, and will then rely on the market for food access.

Uuvudhiya

This constituency has also encountered a poor rainfall performance, with productive rainfall only received in January. The area experienced prolonged dry spells throughout February, which had a detrimental impact on the crop development. Despite the challenging conditions, the majority of farmers managed to cultivate 97% of their crop fields, an increase in the planted area by 1% less than the planted area last season. However, farmers have expressed that although crop germination was satisfactory, the limited and inadequate rainfall resulted in very poor agricultural production. The crop estimates for this area indicate a substantial decrease in crop yields, with pearl millet and sorghum production declining by 92% and 87% below last season's harvest, respectively. Additionally, non-cereal crops also experienced a below harvest when compared to last season. On crop pests, cases of American bollworms affecting pearl millet were reported, but the crop damage was said to be minimal.

In terms of livestock health, there have been reported cases of internal parasites during the assessment period, specifically affecting goats. Nevertheless, the grazing conditions vary from good to fair, and the overall body condition of the livestock varies between good and fair. However, it is worth noting that the water catchments in the area are dry, leaving farmers dependent solely on the pipeline as their water source. As for household food security, the situation is progressively worsening. A number of households, relying on their previous harvest, are now on the brink of depleting their food stocks. Moreover, due to the inadequate rainfall, many farmers were unable to yield any crops this season, intensifying their reliance on the market for food access.

Okaku

The rainfall performance this season has been exceptionally inadequate when compared to the previous season, characterized by severe and prolonged dry spells that persisted throughout. The constituency experienced relatively better

rainfall only in January. Despite the unfavorable conditions, farmers proceeded with the cultivating and planting of their crop fields. Remarkably, the majority of farmers successfully cultivated the entire cropped area, achieving an average planting area of 93%. Due to the inadequate rainfall, farmers faced challenges in achieving a favorable harvest this season. When comparing the current season to the previous one, the production of pearl millet went down by 61%, whereas sorghum production decreased by 91%, below last season's harvest. Evidently, the production of non-cereal crops has been greatly affected by the persistent dry spells. Instances of false army worms were reported in January, causing moderate crop damage during the emergence stage.

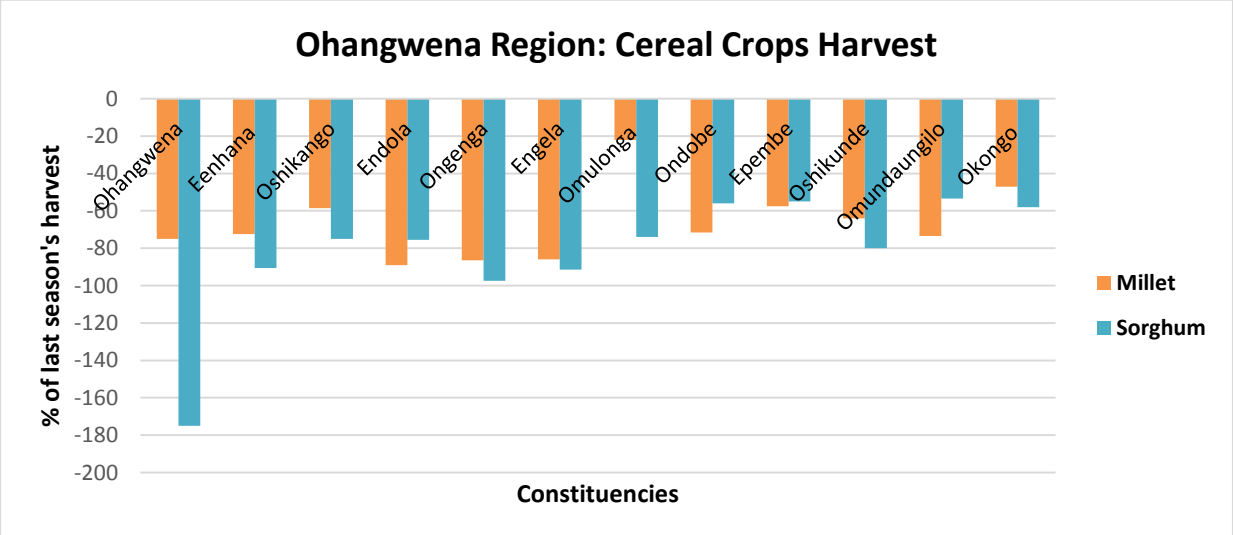
On livestock health, no major diseases or conditions were reported at the time of the assessment. Grazing is very poor throughout the constituency whereas livestock are still in a fair body condition. The water supply situation within the constituency is currently satisfactory, with a few remaining earth dams still containing water. However, some of these dams are on the brink of drying up, raising concerns about the future availability of water for animals in the upcoming months. Regarding food security, a small number of households are still relying on their own production for consumption. However, due to the recent poor harvest, it is insufficient to sustain them until the next harvest, and it is projected to last only until approximately October and November 2023.

7.6. Ohangwena Region

The 2022/2023 rainfall season has been generally poor and sporadic coupled with prolonged dry spells mainly in the second half of the season, affecting mainly the crops at the flowering stage. Moreover, the region also suffered from seasonal floods in January that affected Engela, Ongenga, Endola, Oshikango, Ohangwena, and Omulonga constituencies, which also contributed to the poor crop harvest. Average planted area is estimated at 87% of the cropping area, reflecting a decrease of 6% compared to the corresponding period last year. The revised aggregated crop analysis indicated that the region got a harvest of 3,018MT, reflecting a decrease of 68% below last season's harvest of 9,567MT and 68% below the 10-year average production of 9,445MT.

In this regard, pearl millet production decreased drastically by 67% below last season's harvest of 8,635MT and 77% below average production of 12,341MT. Sorghum production has also decreased by 82 % of last year's harvest of 932MT, and 88% below the average production of 1,352MT. Moreover, a poor harvest compared to last year have also been recorded in the non-cereal crops such as cowpeas, bambara nuts, but Citrus melons are quiet better this season. Apart from the effect of poor rainfall and prolonged dry spell on the overall harvest, the region also suffered the effect of false army worms that were reported throughout the region with a severe damage, as well as cutworms and quelea birds with moderated damage. Isolated cases of locust infestation were also reported in Epembe constituency, with no significant crop damage. By the end of the 2022/2023 cropping season, 1,190.5 ha were ploughed by only 21 GRN tractors while 29 private tractors ploughed 1,386 ha, under the DCPP. Other services rendered during the season include weeding with 248.8ha, DAP with 189 ha and planting with 28.5 ha. Figure 17 below shows the summary of the cereal harvest in various constituencies of Ohangwena Region.

Figure 17: Summary of the cereal harvest for Ohangwena Region



The current body conditions of the livestock are considered fair, but the grazing conditions are significantly inadequate. As a result, some farmers have opted to relocate their livestock to neighboring Angola in search for better grazing opportunities. In light of this situation, farmers are being advised to destock before the drought situation get intense. It was however observed that some farmers have responded to this advice and are actively bringing their livestock to the auctions in large numbers. Regarding water availability, most of the water catchments along the flood plain areas have dried up while some have less water. The situation remains satisfactory in the western part of the region with pipeline being the main source for water supply, in addition to few earth dams. The water situation in the eastern part of the region is also somehow satisfactory with the boreholes as a main source. Moreover, there is a need for more boreholes especially in villages that are a distance from such water sources, and mainly using traditional wells for water. Livestock diseases reported include Pasteurella, Orf and internal parasites, with no mortalities.

The household food security situation has not improved, even after the just ended harvest. This is because households got poor to no harvest this season, leading to the increased number of food insecure households in the Region. Moreover, there are still few households that are depended on last year's harvest which is also on the verge of depletion. According to the Ohangwena Regional Council, the reports on food insecure households are on the rise and by the time of this assessment, the office was busy with the process of registering food insecure households for possible Government interventions.

Figure 18: Crop harvest in Ohangwena region

The only harvest of the season: Very poor pearl millet harvest in Omulonga and Endola Constituency

Constituencies

Ohangwena

The constituency experienced widespread cases of poor rainfall, leading to a significant decline in crop harvest. Prolonged dry spells during February and March further exacerbated the situation, causing wilting and stunting of crops, preventing them from reaching maturity. Despite the unfavorable conditions, the majority of farmers were able to cultivate up to 84% of their crop fields, which is 9% less than the area planted last season. However, upon analysis of the crop production, a substantial decrease in the harvest was observed, with pearl millet production declining by 75% and sorghum by 175% below the previous season's production. Additionally, non-cereal crops also performed below last season's production. In certain parts of the constituency, quelea birds were reported, causing minimal damage to

crops. Regarding livestock health, isolated cases of internal parasites were reported among small livestock in *Omakango*, *Omedi*, and *Onaame* villages. Grazing condition is poor throughout the constituency, impacting the body condition of livestock, which ranged from fair to poor. Water availability is limited, with only a few earth dams still providing water as other water catchments have dried up. In terms of food security, the majority of households have depleted their reserves from previous harvests and now rely on the current harvest and market purchases for food access. However, it is noted that the current harvest will not suffice until the next harvest, as it can only sustain them for approximately two months.

Eenhana

This area received poor rainfall since the onset of the season, which has resulted in a very poor crop harvest, poor grazing and limited rain water. As such only 100% of cropping land was cultivated, which is 16% more than the area planted same period last season. The constituency experienced a prolonged dry spell that has caused permanent wilting to some crops. Ultimately this has resulted in poor production for both pearl millet and sorghum recording a downfall of 73% and 91% in comparison to the previous season, respectively. Non-cereal crops especially melons are better than the previous season, while cow peas and bambara nuts are very poor and no harvest for majority of farmers. There were no cases of crop pests this season.

On livestock health, diarrhea in goats was highly reported in most parts of the constituency and both small and large stock are in a fair to poor body condition. At the time of the assessment, livestock were grazing in crop fields as grazing is generally poor in the open communal grazing land. The current water supply situation is satisfactory due to the presence of rainwater in some earth dams. However, there is growing concern regarding earth dams that have already dried up, which poses a significant challenge in ensuring the availability of water for livestock in the upcoming months.

Due to an exceptionally low harvest this season, the household food security situation has significantly deteriorated, and majority have already depleted last year's harvest. A considerable number of households have failed to obtain any harvest at all, while those who were able to acquire a harvest, estimate that their harvest will only last until September, at best.

Oshikango

As in other constituencies within the region, the 2022/2023 rainfall season in this area was marked by poor rainfall performance, leading to a significant decline in crop production. The month of February, in particular, was characterized by prolonged dry spells, causing crops to wilt and struggle to recover. Despite these challenges, the majority of farmers continued and successfully cultivated 98% of their crop fields, despite the adverse rainfall conditions. The area planted this season is 8% more than the area planed same time in the previous season. The revised crop production indicates a notable reduction in cereal harvests, with pearl millet and sorghum production declined by 59% and 75% below last season’s harvest, respectively. Additionally, the non-cereal harvest is also poor this season compared to the previous year. Isolated cases of False armyworms and quelea birds were reported in the area during March, resulting in moderate crop damage.

Concerning livestock health, no major diseases were reported during the assessment. However, grazing condition is poor due to the insufficient rainfall received this season. Nonetheless, livestock body condition is fair and livestock were still grazing on the crop remains in the crop fields. Household food security has weakened as majority of households have depleted their reserves from the previous

season. Unfortunately, the current harvest is of poor quality and insufficient to bridge the gap until the next harvest, with an estimated duration of only two to three months from the time of harvest.

Endola

This constituency has also experienced poor rainfall, accompanied by prolonged dry spells, particularly in February. These dry spells have had a detrimental impact on the crops, causing them to wilt and preventing many from reaching maturity. Despite the challenging conditions, the majority of farmers have successfully cultivated their entire crop fields up to 98%, an increase of 3% compared to the same time last year. Moreover, there has been a significant reduction in crop harvest, with pearl millet production decreased by 89% and sorghum harvest decreased by 76% below the previous season's harvest. Additionally, the non-cereal harvest is also said to be below last season's harvest. On crop pests, cases of quelea birds were reported throughout the constituency, but the damage is very minimal.

Although livestock are in a fair condition, grazing is poor and depleting fast, whereas water is available, though, in a limited quantity. No livestock diseases reported at the time of the assessment. With regards to household food security situation, majority of households have depleted their previous season's harvest and are currently dependent on the current harvest, which is being supplemented with market purchases. However, the current harvest is deemed inadequate to sustain households until the next harvest, and is estimated to deplete by August and September 2023.

Ongenga

The constituency has been adversely affected by sporadic rainfall, accompanied by prolonged dry spells during February and March. As a result, crops have wilted, impeding their ability to reach maturity. Despite these challenges, farmers have shown resilience by cultivating 90% of their crop field, a 10% less than the area planted last season during the corresponding time. However, the prolonged dry spell has significantly reduced crop harvests, with pearl millet production decreasing by 87% and sorghum harvest declining by 98% below the previous season harvest. The non-cereal crops have also been negatively impacted and have performed poorly this season compared to the previous season. Minimal damage caused by quelea birds was reported in *Ombenoni* village.

In terms of livestock health, isolated cases of Orf in goats were reported in *Okalondo* village, primarily during the month of March. Grazing condition is poor throughout the constituency, while livestock body condition is generally fair. Water supply in the constituency is limited to only few earth dams that still have water, which is also depleting. However, pipelines serve as the major water source, for both households and livestock consumption. On household food security, majority of households are dependent on the current harvest. Furthermore, households have expressed concerns that the current harvest will not suffice until the next season, as it can only sustain them up until October 2023.

Engela

The 2022/2023 rainfall season experienced a delay in the onset, with productive rainfall only received mainly in January. Unfortunately, the rainfall performance for this season has been deemed poor, with prolonged dry spells throughout the entire month of February and much of March. This had a significant impact on crop development, with some crops failed to reach maturity. As a result of such challenging conditions, the majority of farmers were able to cultivate only 78% of their crop fields, representing a reduction of 22% in the area planted last season. The crop estimates indicated a considerable reduction in crop harvest, whereby pearl millet production has decreased by 86%, while sorghum went down by 92% below last season's harvest.

Additionally, the non-cereal crop harvest was also reported as poor when compared to the previous season. Regarding the crop pests, quelea birds were observed in areas such as *Engela, Ongali,* and surrounding villages, but fortunately, no significant crop damage was made.

There were no major livestock diseases in the area at the time of the assessment period, and livestock were generally in a fair body condition. Grazing on the other hand is critically poor with only little grass observed in the fenced off areas. Water sources for livestock were limited to a few earth dams and pipelines, as most catchment areas had already dried up. Currently, majority of households are relying on the current season's harvest, supplemented by market purchases. However, it is worth noting that the recent harvest is insufficient to sustain households until the next harvest and it is estimated to last only up to September and October 2023.

Omulonga

This season was dominated by sporadic and insufficient rainfall since the beginning of the season with dry spells in February until the end of the season. As a result, numerous crops have permanently wilted due to prolonged dry spells, hindering their growth and development. This unfavorable condition has also had an adverse impact on the quality of grains produced. The extended period of dry spells significantly contributed to the low production levels observed in both cereal and non-cereal crops. The harvest indicated a drop in pearl millet production by 22% below last seasons' harvest, whereas, sorghum recorded a decrease of 74% in the production, below last seasons' harvest. Moreover, non-cereal crops have also notably declined in performance when compared to the previous season. Despite erratic rainfall, farmers managed to cover about 83% of their crop fields, a reduction of about 1% of area planted at the same time last season. No severe cases of crop pests and diseases were reported this season.

Livestock are in fair condition especially large stock while small stock body condition ranges from fair to poor. This is due to internal parasites throughout the constituency leading to diarrhea mainly in small stock. Grazing is poor in the open grazing areas while fair in the enclosed areas. Farmers foresees the challenge regarding pasture availability as the grass has dried up and will not take livestock through the dry season. Meanwhile, livestock are grazing in the crop fields on crop residues. Water is available in most of the earth dams and is likely to last until August to September 2023. Regarding the household food security, majority have depleted last season's harvest with no hope of the relief from the current harvest, as it is very poor. Households will face food insecurity towards the end of the year.

Ondobe

Poor rainfall performance has been experienced throughout this constituency and the situation has worsened in the second half of the rain season. Poor rainfall was seen in the forms of erratic and sporadic rainfall and severe prolonged dry spells which led to permanently wilting of crops. Although most farmers were able to cultivate about 88% of their crop fields amidst poor rainfall performance, there are some whose crops did not germinate at all while some crop fields entirely wilted with zero harvest. This season's planted area is less by 8% compared to the corresponding period in the previous season. Farmers received extremely poor harvest this year, whereby Pearl millet decreased by 72% and sorghum by 56% of last season's harvest. Furthermore, harvest for non-cereal crops is very poor for legumes such as cow peas and Bambara nuts, but much better for melons.

Livestock diseases reported in the constituency include diarrhea and abortion in goats, which led to poor body condition, while large stock body condition ranges between fair and poor.

Grazing is a major concern to farmers as it's condition is very poor throughout the constituency. Farmers have moved most of their cattle to Angola for better grazing. Meanwhile, the remaining livestock are grazing in crop fields from the crop residues which is only short-lived for about a month. Water availability is satisfactory and most earth dams still have enough water to sustain livestock. Some earth dams however, do not hold water for a longer period and might dry up before the next rainfall season.

With regards to household food security, the situation has not improved much, following a recent extremely poor harvest. The current harvest for those that managed to get something will be depleted before end of the year. Beside, some farmers did not even get any harvest and as such they are currently dependent on the market for food supply.

Epembe

The 2022/2023 rainfall season was predominantly marked by drought conditions, resulting in a significant decline in agricultural production. As a result, a large number of farmers experienced minimal to no harvest due to the severe drought conditions. Nevertheless, the planted area is estimated at approximately 73% of the cropping area, marking a decrease of 17% in the area planted compared to same time last season. The revised crop estimates reveal a substantial reduction in the overall harvest, with pearl millet production decreasing by 58% compared to the previous season, and a reduction of 55% for sorghum. Farmers further reported very poor to no harvest for non-cereal crops, stating that although there was good germination, the crops did not reach the maturity stage. In the month of February, the area also experienced an infestation of false armyworms, although the damage was minimal.

Regarding livestock health, there were no major livestock diseases reported at the time of this assessment, apart from internal parasites in goats which were widely reported throughout the constituency. The grazing condition is very poor, which have significantly contributed to the overall condition of the livestock which is ranging from fair to poor. The water supply situation is satisfactory and available in a few catchment areas. However, it is estimated that these water sources will dry up before the next rainy season as they did not receive significant water inflow during the current season. In terms of household food security, the situation has weakened, as many households have depleted the last season's harvest. The current poor harvest is likely to deplete before end of this year and households will heavily dependent on the market for food access, thereof.

Oshikunde

The area experienced delayed rainfall, with the first significant rainfall occurring in late November. However, some parts of the constituency only received their last rainfall in January, resulting in a prolonged dry spell until the end of the season, making it one of the most severely affected constituency in the region by the ongoing drought. Majority of farmers cultivated approximately 79% of their crop fields, which is a decrease of 21% in comparison to the planted area same time last season. Farmers in this area encountered zero to no harvest this season due to the severe drought conditions. Updated crop analysis reveal a significant decline in the total harvest, as pearl millet production has dropped by 64% compared to the previous season. Furthermore, the situation is even more severe for sorghum, with a complete crop failure of 80% and no harvest at all. Very poor to no harvest was also reported for non-cereal crops. In terms of crop pests, there were no major cases reported this season, except for birds, particularly in the areas of *Omhalapapa* and the surrounding villages, with minimal crop damage.

There were no major livestock diseases reported at the time of the assessment. Grazing condition is very poor, leading farmers to relocate their

livestock to Angola for better grazing. The livestock body condition is also very poor indicating the negative impact of the prevailing drought and limited grazing resources. Water, mainly for livestock is available in the earth dams and boreholes. In terms of household food security, the situation has deteriorated as numerous households have exhausted their reserves from the previous season's harvest. Additionally, the current season's harvest is exceptionally poor, with the majority of households experiencing severe shortages. This limited harvest is projected to sustain them only until October of this year.

Omundaungilo

This constituency has been severely impacted by poor rainfall performance since the beginning of the rainy season in November 2022. Poor rainfall performance showed in the form of erratic and insufficient rainfall, along with prolonged dry spells and high temperatures. These adverse weather conditions have resulted in a significant decline in agricultural production and water scarcity throughout the constituency. Planted area is estimated at approximately 85% of the cropping area, which is similar to the planted area during the corresponding period in the previous season. The crop production has significantly reduced with Pearl millet production estimated to have decreased by 74% while sorghum reduced by 54% below last season's harvest. Additionally, non-cereal crops were not spared, and the harvest is extremely poor to no harvest at all. Furthermore, cases of birds and aphids were widely reported on pearl millet and cowpeas respectively. These pests have had a notable impact on agricultural yields, causing additional challenges for the already struggling farmers.

At the time of this assessment, there were no significant occurrences of livestock diseases reported. It has been observed that grazing conditions are notably inadequate in all parts of the constituency, which led to poor livestock body condition. The water supply situation is satisfactory with earth dams and boreholes serving as main sources. Household food security situation has been significantly affected by the prevailing drought condition. A few farmers still have reserves from the previous season's harvest, whereas majority have depleted their last season's harvest. As a result, households are facing increased reliance on external sources, such as markets, and are experiencing challenges in accessing sufficient food.

Okongo

The 2022/2023 rainfall season is said to have started well on time, but the situation changed during the second half of the season when extreme dry spells occurred. This affected crops at a very critical growth stage whereas some completely wilted. This further led to a very poor crop harvest where pearl millet reduced by 47% and sorghum decreased by 58% below the previous season. Furthermore, the non-cereal crops also performed poorly this season as a result of the erratic rainfall. Although majority of the interviewed farmers have completed ploughing their crop fields, some could not finish their crop fields due to dry spells. As such, the average planted area is estimated at 94% which is 1% reduction in comparison to the area planted same time last year. No major crop pests were reported, apart from cases of quelea birds in *Onheleiwa, Oluhapa, Ondjana* and surrounding villages, with a severe to moderate damage.

Livestock body condition is ranging between good and fair although the grazing is extremely poor. Many farmers expressed their concern about the poor pasture condition in the area which is unable to take livestock through the dry period before the next rainfall season. No major diseases have been reported among livestock, apart from isolated cases of fowl pox in chickens reported in *Onheleiwa* village. Water is not a challenge in the area, because it is available from the boreholes, and earth dams. On the household food security, the situation

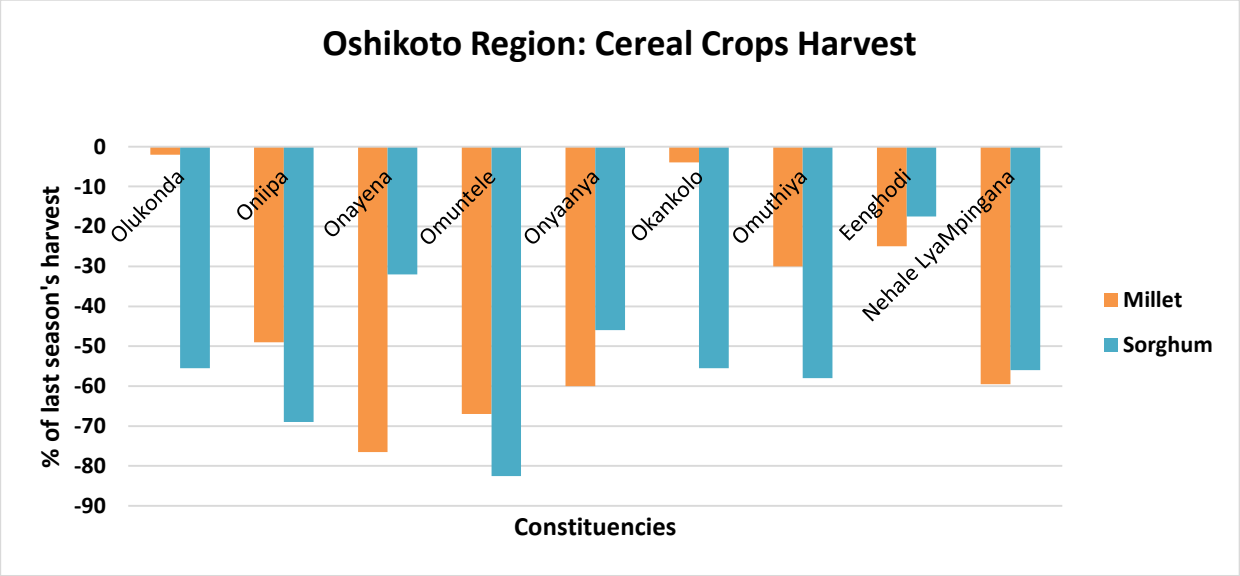
has not improved as a result of the poor harvest received. At the time of this assessment, majority of households have already depleted their previous harvest and the current harvest is estimated to only sustain them until October this year.

7.7. Oshikoto Region

The region recorded below average crop harvest, following poor crop growing conditions that prevailed over the 2022/2023 rainfall season. The season was characterized by serious dry spells, sporadic and insufficient rainfall, as well as premature ending of the rain in March instead of the normal ending in April. The harvest recorded this season is just a drop in the ocean in terms of contributing to the household food security. The aggregated cereal production stands at 9,021MT, indicating a decrease of 37% compared to the previous season's harvest of 14,337MT and 40% below the average production of 15,129MT.

Pearl millet in particular, experienced a decline of 41% compared to the previous season's harvest of 13,367MT and 47% below the average production of 15,006MT. Sorghum production is down by 52% compared to the previous season's 970MT, and 66% lower than the average production of 1,363MT. Non-cereal crops also yielded a poor harvest, falling below the production levels of the previous season. The average area planted in the region accounts for 85% of the cropping area, representing a 5% decrease compared to the area planted in the previous season. Regarding the Government subsidy services under the DCPP, the GRN tractors managed to plough 1,887.34 ha whereas private tractors ploughed only 99.3 ha for the 2022/2023 season. Furthermore, other services rendered during the season include weeding which covered 248.8ha, DAP covered 189 ha while planting covered only 28.5ha. The verification process for the above services is still ongoing, which is highly hampered by the limited vehicles in the Region. As such, the number of hectares covered this season is expected to increase once the verification process has been completed. Figure 19 below shows the summary of the cereal harvest in various constituencies of Oshikoto Region.

Figure 19: Summary of the cereal harvest for Oshikoto Region



Regarding the condition of livestock, the overall body status varies from good to fair, primarily due to inadequate grazing and suboptimal management practices by farmers. The grazing situation, particularly in the northern parts of the region, is deemed insufficient, and farmers

have already started to relocate their livestock to the southern side, where grazing conditions are more favorable at present. The area is anticipated to face a drought due to a scarcity of grass, and farmers have been advised to destock while the animals are still in relatively better condition. Water is mostly available through boreholes and pipeline, as most catchment areas have already dried up. Furthermore, constituencies like Eengodi are grappling with water scarcity issues, with the water pressure in this area being significantly low. As a result, households in this area have been enduring weeks without access to clean and drinkable water.

Livestock disease and conditions reported in both cattle and goats include: dystocia, uterine and vaginal prolapse, fracture/broken bones. Another interesting condition prevailing in the region is the Atresia Anai, whereby an animal is born with either a small opening or no opening at all at the anus due to a failure of the anal membrane to break down. The diseases and conditions reported particularly in goats only are pulpy kidney and Orf, botulism, umbilical hernia, malignant catarrhal fever and lamina internal prolapse. The region continues to witness cases of rabies, and tragically, one human life was lost due to an incident involving a rabid jackal that attacked a boy in the *Omutse-gwonime* area. With the assistance of the community, the inffected animal was put down, to prevent further incidents of such cases.

Regarding household food security, the situation has not shown any signs of improvement and, in fact, has further deteriorated due to a meager harvest. During interviews, the majority of households expressed that they have already exhausted their previous season's harvest and are primarily dependent on markets for acquiring food, since the current season's harvest is insufficient to sustain them until the next harvest. According to the Oshikoto Regional Council, the number of food insecure households is increasing and the office is receiving a comprehensive list of food-insecure households across the region, for potential immediate Government interventions.

Figure 20: Crop harvest in Oshikoto region

Good citrus melons harvest in Onyaanya constituency

A crop field with poor crop stand-Okankolo constituency

Olukonda

Farmers have reported that the rainfall during the 2022/2023 season was inadequate and significantly less in comparison to the amount and distribution observed in the previous 2021/2022 season. Furthermore, the rainfall concluded prematurely in March, accompanied by an extended period of dry weather in February, causing significant damage to crops and resulting in wilting. Consequently, the majority of farmers are dissatisfied with the current harvest, as they believe it falls well below the productivity achieved in the previous season. Crop production has therefore declined by 2% and 56% for pearl millet and sorghum below last season's harvest, respectively. On the other hand, the non-cereal crops have performed better compared to last season, especially the Kalahari melons. The average planted area is at 89% of the cropping area, a 7% less than the area planted last season during the corresponding period. On crop pests, isolated cases of false army worms were reported during the dry spell period, with insignificant impact on the harvest.

As a result of the poor crop harvest this season, the household food security situation is poor as the harvest will not last till the next harvest, also due to insufficient carry over stock from previous seasons. According to farmers, the current harvest is likely to be depleted by September this year and they will entirely depend on the market for food access thereof. Pasture and livestock conditions were reported to be in a poor state. Water is stated not to be a challenge in the constituency, as it is available from the earth dams and pipeline. On livestock health, no major diseases were reported apart from isolated cases of botulism and internal parasites in *Olukeno* and *Oshali* villages.

Onayena

The adverse effects of the drought have significantly impacted agricultural activities and livelihoods in the constituency. This season's rainfall was poor compared to the previous season, and its distribution was erratic and sporadic. Although there was a good amount of rainfall received in January, allowing most farmers to commence ploughing, a dry spell that occurred in February caused a permanently wilting of crops. Despite the drought conditions, farmers in the area made considerable efforts to cultivate their fields, whereby the planted area was estimated at 81% of the total cropping area. The revised crop analysis indicate a significant reduction in the harvest compared to the previous season. Pearl millet production have declined by 77%, while sorghum production have dropped by 32%. Additionally, the harvest for non-cereal crops is reported to be below that of the previous season. Fall armyworms were reported in areas of *Oniimwandi* and surrounding villages however, the damage caused by these pests was minimal.

Both small and large stock are reported to have fair body condition. Grazing conditions are currently fair; however, it is anticipated that it will not last until the next rainy season. Water is accessible through dams and private take-offs. Furthermore, the available catchment areas are drying up fast. While a few farmers still have reserves from the previous season's harvest, allowing them to sustain themselves to some extent, the majority of households have depleted their reserves due to the below-normal harvest of the previous year. Consequently, households heavily rely on external sources, such as markets, to meet their food needs.

Onyaanya

The constituency experienced a severe drought situation characterized by limited rainfall, with prolonged dry spells since February. Overall, the amount of rainfall received was

significantly lower compared to the previous season. Despite the challenging conditions, farmers made efforts to cultivate their fields up to approximately 86% of the total cropping area. The revised crop production indicate substantial reductions in the production compared to the previous season. Pearl millet production have declined by 60%, while sorghum production is said to have dropped by 46%. Additionally, the harvest for non-cereal crops is reported to be below that of the previous season. Although the area faced challenges with crop pests, including armoured bush cricket and birds, the damage caused was minimal.

The body condition of small stock is reported to be good, while that of large stock ranges from fair to poor. Grazing conditions are currently fair, but with the limited availability of forage, it is expected to deplete sooner. While water is accessible through few catchment areas and private water take-offs, most earth dams in the region are dry, posing additional challenges for livestock farmers. Household food security has been significantly affected by the drought, and only few farmers still have reserves from the previous season's harvest. However, the majority of households have depleted their reserves since the previous season's harvest was also low. As a result, households are facing increased reliance on external sources, such as markets. The current poor harvest is estimated to deplete before the end of this year.

Oniipa

This constituency suffered the effect of poor rainfall and prolonged dry spells, like other areas within the region. According to most interviewed farmers, this season's rain was below last season. In addition, the rainfall season have terminated earlier than anticipated, which later affected the late planted crops. On average, most farmers were able to cultivate 88% of their crop fields which is 7% less than the area planted last season. Crop production in this area showed a drastic decrease in the harvest and pearl millet declined by 49%, while sorghum went down by 69% of last season's harvest. On non-cereal crops, this season's harvest performed below last season's. No major crop pest was reported in the area.

With regards to livestock health, no major disease cases were reported. Pasture is very poor in the area, and livestock are mostly feeding on the available and palatable shrubs. The livestock body condition is poor as a result of poor pasture, and some farmers have already started to relocate their livestock to better grazing areas, such as the cattle posts. Water mostly for livestock is available from wells, earth dams and pipeline. Regarding the household food security, the situation has not improved given the poor harvest recorded. Based on interviews conducted with households, it has been revealed that the harvest from the previous season has already been fully consumed, and the current harvest will only provide sustenance until August of this year. Additionally, it is important to note that there are farmers who did not yield any harvest this year, placing them at the brink of food insecurity.

Eengodi

When compared to the previous rainfall season, the amount of rain received in this area this season was relatively low, and its distribution was poor. Prolonged dry spells were frequently experienced, particularly in December and from February through end of March. According to farmers, poor rainfall performance caused poor germination and wilting of crop resulting in poor and below average harvest, whereby some farmers reported to have received zero harvest this year. The overall planted area stands at 78% of the cultivated area, which is a 17% decrease compared to the corresponding period previous season. Crop analysis indicated an extreme low crop harvest with pearl millet and sorghum decreased by 25% and 18% below last season's harvest, respectively. With the exception of citrus melons, whose production is better, the general production for non-cereal crop is also

poor this season. False army worms were reported earlier in the season at emergence stage with moderate to minimal damage.

Numerous reports of internal parasites in goats as well as suspected cases of pulpy kidney instances have been reported in the area. The body conditions of the livestock vary from good to fair, while the pasture conditions range from fair to poor. The water supply from the pipeline and borehole serves both human and animal consumption, whereas the earth-dams and swamps have already begun to dry up. At the time of this assessment, majority of households were relying on the current harvest and supplementing with maize meal from the market. Overall, the household food security situation was observed to be deteriorating, as the current inadequate harvest is projected to sustain households only until September 2023

Okankolo

The rainfall patterns during this season displayed inconsistency and uneven distribution. Prolonged dry spells occurred in December and persisted throughout February, necessitating repeated replanting efforts by farmers. In comparison to the previous season, where the entire crop area was planted, farmers managed to successfully cultivate approximately 91% of their crop fields this year. Farmers indicated that crop harvest is poor, whereby pearl millet and sorghum have decreased by 4% and 56% below last season's harvest, respectively. The harvest for non-cereal crops have also dropped this season. Isolated cases of False Army worms were experienced on pearl millet crops during emergence stage, with minimal impact on the harvest.

On livestock health, there were no major diseases and conditions reported by the time of the assessment. However, livestock body condition ranges between good and fair although the overall grazing condition in the area is poor and fast depleting. In addition, grazing is better only in the fenced off areas. Water mainly for livestock is satisfactory with boreholes as a main source. Additionally, traditional wells are utilized in the area to access water, particularly by farmers situated at a considerable distance from the boreholes.

Household food security situation is deteriorating and a significant number of farmers reported already relying on the just ended harvest, in addition to the market purchases for food availability. The poor harvest is anticipated to last until August 2023.

Nehale LyaMpingana

The 2022/2023 rainfall season was below average, and most farmers got poor harvest this year, caused by prolonged dry spells throughout the season. Nevertheless, farmers were able to plant up to 90% of their crop fields, a reduction of 10% compared to the planted area same period last season. Few cases of Quelea birds were experienced with minimal crop damage. Compared to the previous season, both pearl millet and sorghum production has gone down whereby pearl millet decreased by 60% whereas sorghum decrease by 56%. Moreover, the general production for non-cereal crops is also poor this season as compared to the previous season.

Regarding livestock health, internal parasites were widely reported mostly around *Olukupa* area, with skin disease reported in cattle in *Onatuwe B* village. Water for livestock is satisfactory with boreholes as a main source. Grazing condition varies, with good grazing only in enclosed/fenced off areas whereas fair to poor in the common grazing areas. In addition, livestock are currently in a good body condition but with the poor grazing, the situation is expected throughout the dry season when grazing gets depleted completely. Many farmers have already started to relocate their livestock into Angola where grazing is better. The household food security has declined due to the poor harvest obtained this season. In addition, many households have depleted the

last season’s grain reserves and already relying on the current harvest which is expected to last only up to September 2023.

Omuntele

The just-ended rainfall season was described by the majority of farmers as poor, sporadic and insufficient, compared to the previous season. Furthermore, the effects of prolonged dry spells experienced in February and March resulted to a poor harvest, and farmers only managed to cultivate 88% of their crop fields, which is 7% less than the area planted last season. Following the poor rainfall season, production for pearl millet and sorghum recorded a significant decrease of 67% and 83% below last season, respectively. Furthermore, farmers also noted a decrease in the non-cereal harvest, compared to the previous season. On crop pests, quelea birds were widely reported in the constituency causing moderate damage to crops.

No major livestock diseases were reported at the time of this assessment. Livestock body condition was reported to be fair, although, the pasture is generally very poor. In terms of water supply, the constituency mainly depend on the pipeline as most catchment areas have already dried up, while some are about to dry up. On household food security, the situation has not improved given the recent poor harvest recorded. As such, the majority of farmers reported that, they are supplementing their harvest with basic food acquired from the market in order to prolong its availability. Moreover, the recent poor harvest is not adequate and is estimated to last only up to October 2023.

Omuthiya

Farmers described the 2022/2023 rainfall season as poor compared to the previous one. Despite observing good crop germination initially, prolonged dry spells in February and March led to crop failure and wilting. Consequently, farmers were only able to cultivate 77% of their crop fields, which is 17% less than the area planted during the corresponding period last season. On another hand, pearl millet has recorded a decrease in the cereal harvest of 30%, while sorghum harvests have declined by 58% below the previous season's harvest. Furthermore, non-cereal crop harvests were also reported to be lower than the previous season. Quelea birds were reported at the grain maturity and harvest time but with minimal damage. In terms of livestock health, no major diseases were reported, although isolated cases of diarrhea were observed in goats. Livestock body condition was reported as fair, while pasture quality is generally poor. Water availability in the area is satisfactory, and earth dams are drying up due to low inflow this season. However, other sources such as pipelines and traditional wells are also available. Regarding household food security, most farmers indicated that they are still relying on the previous season's harvest at the time of the assessment, which is also on the verge of depletion. Moreover, the current harvest is poor and expected to sustain households up to December 2023.

8. NATIONAL CEREAL PRODUCTION SITUATION ANALYSIS AND THE PLANTED AREA FOR 2022/2023 CROPPING SEASON

8.1. National Cereal Production

The national aggregate coarse grain production (white maize, sorghum, pearl millet and wheat) is presented in Table 3 below. It is indicated that the coarse grain production for the 2022/2023 season is **153,000 MT**, reflecting a decrease of 9% of last season's harvest of 168,200 MT, but 23% above the 10-year average production of 124,200 MT. The aggregated coarse grain production particularly consists 105,600MT of white maize, 20,500 MT of pearl millet, 2,200MT of sorghum and 24,700 MT of wheat.

Table 3: Namibia: Total Cereal Production trend ('000 MT), 2022/2023 compared to a 10-year average (2012/2013 - 2021/2022) and to 2021/2022 production.

Region/Sector	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	10-year average	2022/23 as % of average	2022/23 as % of 2021/22
Zambezi	3.5	7.5	2.5	2.1.	7.4	7.9	1.7	11.2	15.3	11.1	9.7	7.0	39	-12
Kavango East & West	1.8	3.8	1.1	1.8	4.2	7.3	1.8	8.7	4.6	5.6	2.7	4.1	-35	-53
Omusati	3.2	7.4	3.3	4.7	13.1	21.7	1.1	22.1	10.7	8.2	2.0	9.5	-79	-76
Ohangwena	4.9	7.3	2.6	4.2	12.1	16.7	2.5	19.8	14.8	9.6	3.0	9.4	-68	-68
Oshana	4.4	8.9	3.3	2.2	9.4	16.0	0.5	16.4	12.1	9.9	3.7	8.4	-55	-63
Oshikoto	11.5	18.6	5.8	7.0	20.1	24.8	3.4	28.3	17.5	14.3	8.4	15.1	-45	-42
Commercial	87.3	82.6	50.5	55.4	86.4	64.9	36.3	56.1	78.1	109.4	123.5	70.7	75	13
Namibia	**116.6**	**136.1**	**68.9**	**77.5**	**153.2**	**159.3**	**47.3**	**162.5**	**153.0**	168.2	**153.0**	**124.2**	**23**	**-9**

The commercial area alone witnessed an improvement in the harvest, contributing about 80% to the National cereal production. This improvement was primarily attributed to a notable increase in the planted area by numerous commercial producers. On the other hand, all the major crop producing regions in the communal area recorded a reduction in the harvest compared to the previous season (2021/2022), contributing only about 20% to the national cereal production. This is attributed to the poor crop growing conditions that were seen in the forms of delayed onset of the rainfall season, erratic rainfall patterns and prolonged dry spells.

8.2. National Planted Area

Table 4 below presents the analysis of the planted area to coarse grain production in hectares, for the 2022/2023 cropping season. As indicated, the national aggregate planted area is estimated at 339,100 hectares, reflecting a 2% decrease compared to the area planted during the corresponding period last season, but above the 10-year average planted area by 16%. The commercial area alone saw an increase in the area planted by 19% above last season.

Table 4: Namibia: Total planted area trend ('000 hectares) and 2022/2023 area planted compared to a 10-year average (2012/2013 - 2021/2022) and to 2021/2022 cropping season.

Region/Sector	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	10-year average	2022/23 as % of average	2022/23 as % of 2021/22
Zambezi	20.6	19.4	20.4	15.4	20.1	18.9	13.6	19.4	20.4	18.9	20.4	18.7	9	8
Kavango East & West	20.6	21.6	18.4	17.4	21.8	19.6	10.7	22.3	21.8	34.0	36.9	20.8	77	9
Omusati	61.5	78.0	64.3	74.4	83.5	78.9	49.6	77.1	81.7	81.7	77.1	73.1	6	-6
Ohangwena	76.2	79.8	65.5	75.3	86.1	80.7	62.8	85.2	80.7	83.4	78.0	77.6	1	-6
Oshana	33.2	35.1	30.8	33.9	35.9	37.4	26.5	35.1	36.7	37.1	34.3	34.2	0	-7
Oshikoto	54.1	58.1	54.8	56.1	60.1	57.4	7.2	55.4	62.7	59.4	56.1	52.5	7	-6
Commercial	16.5	16.0	16.5	12.1	16.6	11.6	10.1	13.6	20.8	30.2	36.2	16.3	122	19
Namibia	**282.7**	**308.0**	**270.6**	**284.4**	**324.2**	**304.7**	**180.5**	**308.2**	**324.4**	**344.8**	**339.1**	**293.2**	**16**	**-2**

Despite the adverse impact of severe drought conditions during the season, the majority of farmers managed to cultivate their crop fields to their maximum capacity within the first half of the season. This was done in the hopes that rainfall conditions would improve during the latter half of the season as earlier forecasted. However, despite these efforts, the harvest remained poor due to extensive crop wilting.

9. CEREAL FOOD SUPPLY AND DEMAND SITUATION

Table 5 below presents the National Cereal Balance Sheet for the 2023/2024 marketing period (1st May 2023 to 30th April 2024.

The locally available cereals for the current marketing period is estimated at 192,700 MT. This includes 39,600 MT wheat, 129,800 MT of maize and 23,300 MT of pearl millet and sorghum. The national demand for cereals for the same period is estimated at 371,800 MT, which consists of 89,700Mt of wheat, 200,300MT of maize and 81,900 MT of pearl millet/sorghum. This indicates that, the local production for this season is only about 52% of the total national cereal requirement. Therefore, a shortfall of 179,100 MT is estimated, which is 48% of the national cereal requirement. The deficit consisting of 50,100MT of wheat, 70,500MT of maize and 58,600 MT of pearl millet/sorghum is expected to be covered through commercial imports.

Table 5: Cereal supply and demand situation update

Namibia: Cereal Supply/Demand for 2023/2024 Marketing Year(May-April) ('000metric tons)

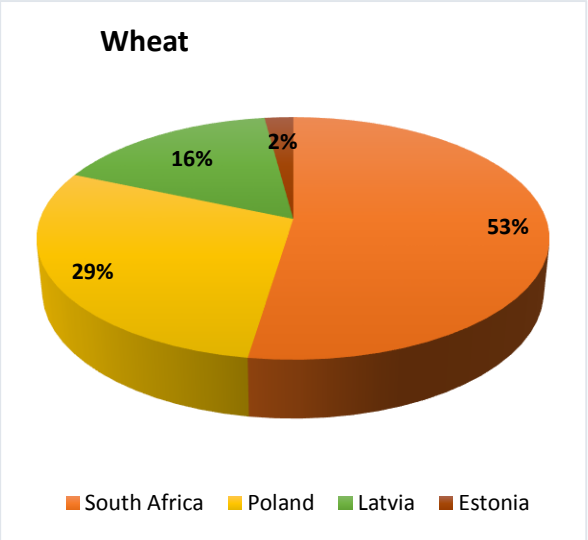
	Wheat	Maize	Millet/Sorghum	Total
Domestic Availability	**39.6**	**129.8**	**23.3**	**192.7**
Opening stocks (as at May 2023)	14.9	24.2	0.5	39.7
Forecasted Production*	24.7	105.6	22.7	153.0
Total Utilization**	**89.7**	**200.3**	**81.9**	**371.8**
Food use	78.5	179.7	63.4	321.6
Losses and other uses***	1.2	10.6	3.4	15.2
Closing stocks (as at April 2023)	10.0	10.0	15.0	35.0
Shortfall to be covered by import	**-50.1**	**-70.5**	**-58.6**	**-179.1**
Commercial imports received****	**4.6**	**0.7**	**0.014**	**5.3**
After trade Deficit/Surplus	**-45.5**	**-69.7**	**-58.5**	**-173.8**

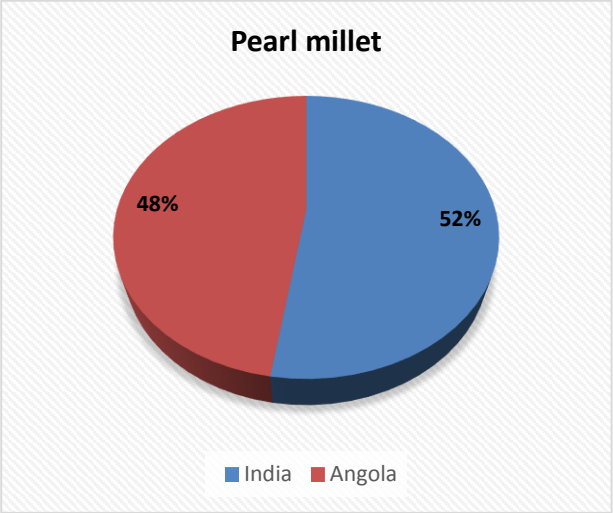
**Excludes cereal production for animal feed*
***An average of 2. 6 million people (NSA, 2023 projections.), each consuming 124 kg of cereals per annum*
****Includes seed use and waste; excludes commercial livestock feed*
After Trade Surplus/Deficit = Planned Imports - (Shortfall + Exports)
***** Imports are only for May 2023*
Source: MAWLR-Agro Business Information Services Unit

At the time of this report, a total of 5,300MT of coarse grains were received in May 2023, consisting of 4,600 MT of wheat, 0.700 MT of maize and 0.014 MT of millet/sorghum. As it stands, there is still a total deficit of about 173,800 MT of cereals which still need to be covered through commercial imports during 2023/2024 marketing year.

In the meantime, South Africa, from where Namibia primarily sources its maize imports, has reported a 5.7% increase in the commercial white maize harvest for the current season. According to the South African Monthly Food Security Bulletin for June 2023, the country anticipates producing 16,354 million tons this season, which is sufficient to meet the domestic needs and export markets.

Figure 21: Wheat and pearl millet import sources for the 2022/2023 marketing year





Source: Namibian Agronomic Board, June 2023

According to the Namibian Agronomic Board, all the white maize (100%) was imported from South Africa, whereas 53% of wheat was imported from South Africa, 29% from Poland, 16% from Latvia and 2% was from Estonia, during the 2022/2023 marketing year. Furthermore, 52% and 48% of pearl millet grains were sourced from India and Angola, respectively.

The Namibian Agronomic Board, as a responsible board to promote the agronomic and horticulture industry through market regulations and facilitation, have imposed the import control measures for white maize and millet. Therefore, import restrictions or close border periods were implemented for the importation of white maize from 09 May, while pearl millet started 01 July 2023 until all the locally produced grains have been taken up by processors or buyers.

10. CONCLUSION AND RECOMMENDATIONS

10.1. Conclusion

The commencement of the rainfall season for 2022/2023 experienced a notable delay across the majority of regions within the country, thereby causing adverse effects on crop yields, pasture development, and surface water availability. In addition to sporadic and insufficient rainfall patterns that have dominated the season, the country noted severe and prolonged dry spells in December, February, March and April, and the above-average rainfall was mostly received in January. This however, lacked follow up rains and as a result, the bulk of the northern regions ended the season with average rainfall. Nonetheless, the central region of the country, specifically Khomas, partially Erongo and partially Otjozondjupa, exhibited substantial rainfall performance, leading to enhancements in agricultural output and the establishment of pastures.

Following the recent crop harvest, a significant decline in the yield was observed, with aggregate cereals yielding 9% below the harvest of the previous season, although 23% above the 10-year average production. This reduction in output can be attributed primarily to unfavorable growing conditions experienced throughout the 2022/2023 rainfall season. Regrettably, all communal regions involved in crop production reported insufficient harvests, which failed to enhance household food security. While the commercial sector demonstrated an improvement in cereal production, it remains insufficient to meet the country's consumption demands.

The food security situation has significantly deteriorated and has not shown improvement, following the recent poor harvest. It has been observed that the majority of crop farmers have experienced crop failure, which has consequently severely impeded their ability to replenish their grain reserves. A considerable number of households have reported a depletion of their harvest from the previous season, and they are now relying on the recently harvested grains, supplemented by market purchases in order to extend their food availability. In addition, it is projected that the recent harvest will be exhausted between August and December 2023, leaving these households in a precarious state of food insecurity. Households that dependent on livestock production for livelihood are equally affected and the situation is concerning due to the challenging grazing conditions prevailing across the regions. This situation poses a significant risk of losing the livestock to the impending drought.

Despite the Government's pronouncement regarding the extension of drought relief interventions in Kunene, certain areas of Erongo and Omusati regions, as well as the inclusion of Omaheke, //Kharas, and Hardap regions in the same interventions, it is imperative to acknowledge that the agricultural production in other regions is also affected by the unpredictable rainfall patterns, hence, the overall food security situation remains compromised.

Grazing condition in most parts of the country has significantly become limited which is largely attributed to poor rainfall conditions which have dominated the 2022/2023 rainfall season. In Most regions, grazing is reported to vary between fair to very poor with no rainfall water available in

most catchment areas. There was no outbreak of livestock diseases of economic importance, apart from seasonal diseases and conditions in most parts of the country.

10.2.Recommendations

Based on the findings of this assessment, the following recommendations are made for possible interventions and future assistance.

- Government through the Office of the Prime Minister, should continue with the provision of the drought relief measures to households that are faced with food insecurity in Kunene, parts of Omusati and Erongo regions, Omaheke, //Kharas and Hardap regions, until the situation normalizes;

- Government to consider the roll- out of drought relief interventions (food assistance and Livestock Support Programme) across the remaining eight (8) regions, including the entire Omusati and Erongo regions

- Government through the Ministry of Agriculture, Water and Land Reform to continue with construction, rehabilitation and excavation of earth dams and boreholes in areas where communities are faced with water shortages;

- Government through the Ministry of Agriculture, Water and Land Reform to ensure sufficient and timely provision of agricultural inputs (seed and fertilizers) and services (ploughing and planting) in preparation for the 2023/2024 cropping season;

- Government through the Ministry of Works and Transport (Namibia Meteorological Service) to strengthen capacity in accurate whether forecasting

- Government through the Ministry of Environment, Forestry to Tourism to control the number of elephants and buffaloes in the conservancies in the Zambezi, Kavango East and Kavango West Region;

- Regional Councils to establish Regional Emergency Disaster Funds to strengthen the availability of resources.

11. ACKNOWLEDGEMENTS

The Agro Business Information Services (National Early Warning on Food Security) Unit in the Directorate of Planning and Business Development use information from various institutions and organizations within Namibia in order to compile this report. This report was compiled with the aid of primary information and reports sourced from the following Directorates, Institutions and Organizations.

- Food and Agricultural Organization of the United Nations (FAO)
- National Aeronautics and Space Administration (NASA Harvest)
- Directorate of Agriculture Production, Extension & Engineering Services (DAPEES)
- Directorate of Veterinary Services (DVS)
- Agro-Marketing and Trade Agency (AMTA)
- Namibian Agronomic Board (NAB)
- Meteorological Service of Namibia (MNS)
- Office of the Prime Minister-Directorate of Disaster Risk Management (OPM-DDRM)
- Namibia Water Corporation Ltd (NamWater)
- Namibia Statistics Agency (NSA)
- Commercial Millers
- Regional Councils